

## **APPENDIX 1.1:**

### **APPROVED TRAFFIC STUDY SCOPING AGREEMENT**

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March 10, 2022

Mr. Randy Bowman  
City of Palm Desert  
73510 Fred Waring Drive  
Palm Desert, CA 92260

**SUBJECT: PORTOLA/FRANK SINATRA RESIDENTIAL, LOS ANALYSIS AND VMT SCREENING  
SCOPING AGREEMENT**

Dear Mr. Randy Bowman:

Urban Crossroads, Inc. is pleased to resubmit this scoping letter to City of Palm Desert regarding the Level of Service (LOS) Analysis and VMT Screening for the proposed Portola/Frank Sinatra Residential development (“Project”), which is located south Frank Sinatra Drive and west of Portola Avenue in the City of Palm Desert. It is our understanding that the Project will potentially include up to 402 residential dwelling units.

The remainder of this letter describes the proposed analysis methodology, Project trip generation, trip distribution, and Project traffic assignment/project trips on the surrounding roadway network. The following scoping assumptions have been prepared in accordance with the County of Riverside’s Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020) as the City of Palm Desert utilizes the County guidelines.

A preliminary site plan for the proposed Project is shown on Exhibit 1. Exhibit 2 depicts the location of the proposed project in relation to the existing roadway network. It is anticipated that the Project would be fully developed by year 2024. Project will have one right-out access (exit only) along Frank Sinatra Drive, one right-out access (exit only) along Portola Avenue, and one right-in/right-out/left-in access along Portola Avenue.

## **TRIP GENERATION**

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) *Trip Generation* (11<sup>th</sup> Edition, 2021) manual for the proposed land use (220 - Multifamily Housing (Low-Rise) Not Close to Rail Transit) are used. Table 1 presents the trip generation rates and the resulting trip generation summary for the proposed Project. As shown in Table 1, the Project is anticipated to generate a net total of 2,709 trip-ends per day with 161 AM peak hour trips and 205 PM peak hour trips.

## **TRIP DISTRIBUTION AND TRIP ASSIGNMENT**

The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibits 3 and 4 presents the Project

distribution patterns. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes are shown on Exhibit 5.

## ANALYSIS SCENARIOS

Consistent with the County's LOS guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2022) Conditions
- Existing plus Ambient plus Project (EAP) (2024)
- Existing plus Ambient plus Project plus Cumulative (EAPC) (2024)

The City of Palm Desert General Plan Circulation Element is depicted on Exhibit 6, while the accompanying roadway cross-sections are presented on Exhibit 7.

## STUDY AREA

The traffic impact study area was defined in conformance with the requirements of County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled. Consistent with the County's LOS guidelines, study area intersections have been identified for the Project based on the contribution of 50 or more peak hour trips. Based on this criterion, anticipated trip generation and trip distribution, the following intersections will be evaluated:

| ID | Intersection Location                           | ID | Intersection Location          |
|----|-------------------------------------------------|----|--------------------------------|
| 1  | Monterey Av. / Frank Sinatra Dr.                | 7  | Portola Av. / Retreat Cir. (S) |
| 2  | Portola Av. / Central Access                    | 8  | Portola Av. / Willow Ridge     |
| 3  | Shepherd Ln. - North Access / Frank Sinatra Dr. | 9  | Portola Av. / Country Club Dr. |
| 4  | Portola Av. / Frank Sinatra Dr.                 | 10 | Portola Av. / South Access     |
| 5  | Cook St. / Frank Sinatra Dr.                    | 11 | Cook St. / University Park Dr. |
| 6  | Portola Av. / Retreat Cir. (N)                  |    |                                |

Exhibit 2 identifies the proposed study area intersection analysis locations.

## LEVEL OF SERVICE (LOS) CRITERIA

Per the City of Palm Desert's General Plan, LOS D as the threshold for acceptable traffic conditions on the circulation network.

## **PREFERRED ANALYSIS METHODOLOGY**

For the purposes of this analysis, signalized intersection operations analysis will be based on the methodology described in the Highway Capacity Manual (6<sup>th</sup> Edition). Intersection LOS operations are based on an intersection's average control delay. Unsignalized intersections will be evaluated using the methodology described in the HCM 6<sup>th</sup> Edition. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane.

Traffic/transportation safety issue that could have an impact on either signalized or unsignalized intersections within the study area will be identified. These issues could be related to sight distance, queuing, pedestrians, bicyclists, or public transit.

## **TRAFFIC COUNTS**

Traffic count data will be collected in March during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM.

## **CUMULATIVE DEVELOPMENT TRAFFIC**

It is requested that City staff review the list of cumulative development projects (shown on Exhibit 8 and listed on Table 2) for inclusion in the traffic study. Consistent with other studies performed in the area, an ambient growth rate of 2% per year will be utilized as a minimum if necessary. The rate will be compounded over a 2-year period (i.e.,  $1.02^{2\text{years}} = 1.0404$  or 4.04%) for Interim Year (2024) conditions.

## **SPECIAL ISSUES**

Per discussion with City staff, queuing analysis will be evaluated for the northbound left turn at the intersection of Portola Avenue / Central Access (#2). In addition, the need for southbound right turn lane at the intersection of Portola Avenue / Central Access (#2) will be reviewed if necessary for capacity and safety.

## **VEHICLE MILES TRAVELED (VMT)**

The VMT screening assessment will be prepared under separate cover. The California Environmental Quality Act (CEQA) procedures for determination of transportation impacts have recently changed to an evaluation of Vehicle Miles Traveled (VMT) rather than vehicle delay or level of service, due to Senate Bill 743 (SB 743). County of Riverside VMT screening guidelines will be applied to the project.

Mr. Randy Bowman  
City of Palm Desert  
March 10, 2022  
Page 4

Please review this scoping agreement let us know if it is acceptable, or if the City requests any changes to this proposed scope of work. If you have any questions, please contact John Kain at (949) 375-2435 or Marlie Whiteman (714) 585-0574.

Respectfully submitted,

URBAN CROSSROADS, INC.



John Kain, AICP  
Principal



Marlie Whiteman, PE  
Senior Associate

# EXHIBIT 1: PRELIMINARY SITE PLAN

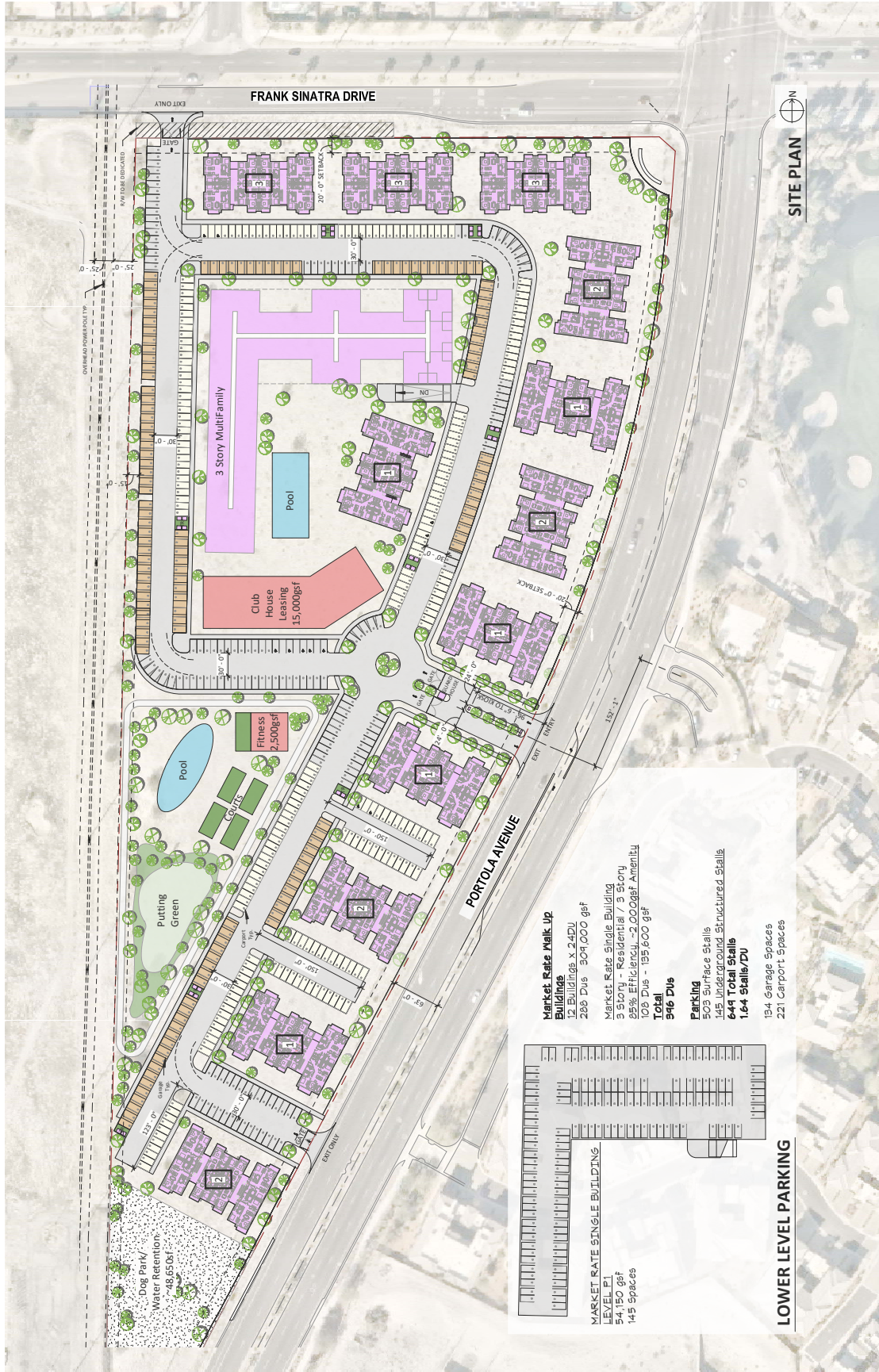


**TABLE 1: PROJECT TRIP GENERATION SUMMARY**

| Trip Generation Rates <sup>1</sup>                          |             |                       |              |      |       |              |      |       |       |
|-------------------------------------------------------------|-------------|-----------------------|--------------|------|-------|--------------|------|-------|-------|
| Land Use                                                    | ITE LU Code | Quantity <sup>2</sup> | AM Peak Hour |      |       | PM Peak Hour |      |       | Daily |
|                                                             |             |                       | In           | Out  | Total | In           | Out  | Total |       |
| Multifamily Housing (Low-Rise)<br>Not Close to Rail Transit | 220         | 402 DU                | 0.10         | 0.30 | 0.40  | 0.32         | 0.19 | 0.51  | 6.74  |

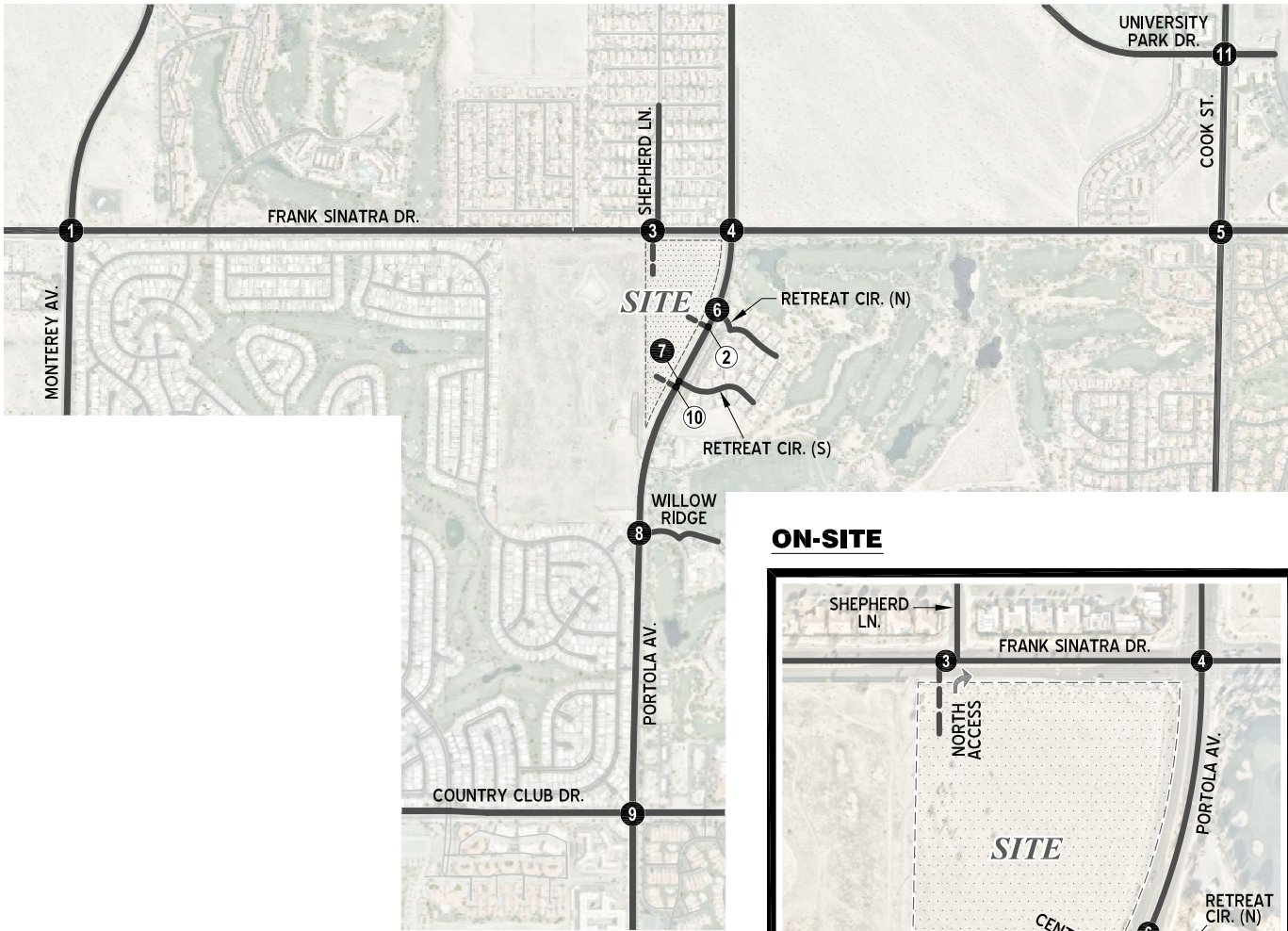
| Trip Generation Results                                     |             |                       |              |     |       |              |     |       |       |
|-------------------------------------------------------------|-------------|-----------------------|--------------|-----|-------|--------------|-----|-------|-------|
| Land Use                                                    | ITE LU Code | Quantity <sup>2</sup> | AM Peak Hour |     |       | PM Peak Hour |     |       | Daily |
|                                                             |             |                       | In           | Out | Total | In           | Out | Total |       |
| Multifamily Housing (Low-Rise)<br>Not Close to Rail Transit | 220         | 402 DU                | 40           | 121 | 161   | 129          | 76  | 205   | 2,709 |

<sup>1</sup> Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

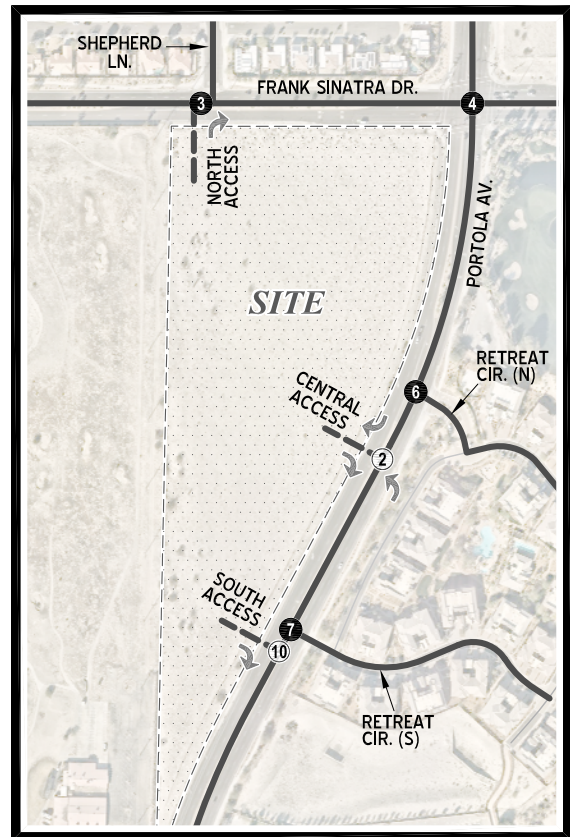
<sup>2</sup> DU = Dwelling Unit

F:\UXRjobs\14600-15000\14677\02\_LOS\Excel\14677 - Scope.xlsx\Trip Gen

## EXHIBIT 2: TRAFFIC ANALYSIS STUDY AREA



### ON-SITE

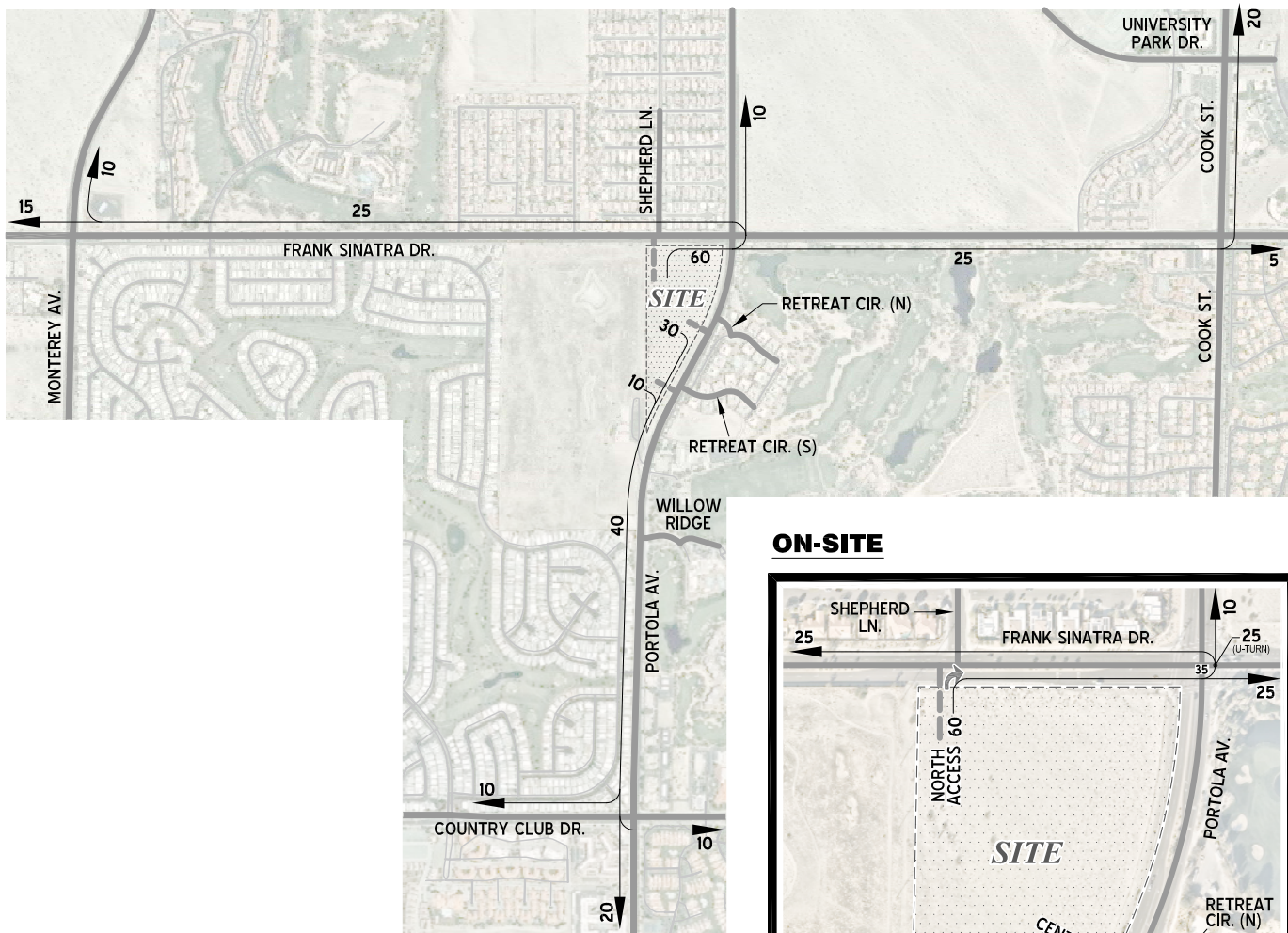


### LEGEND:

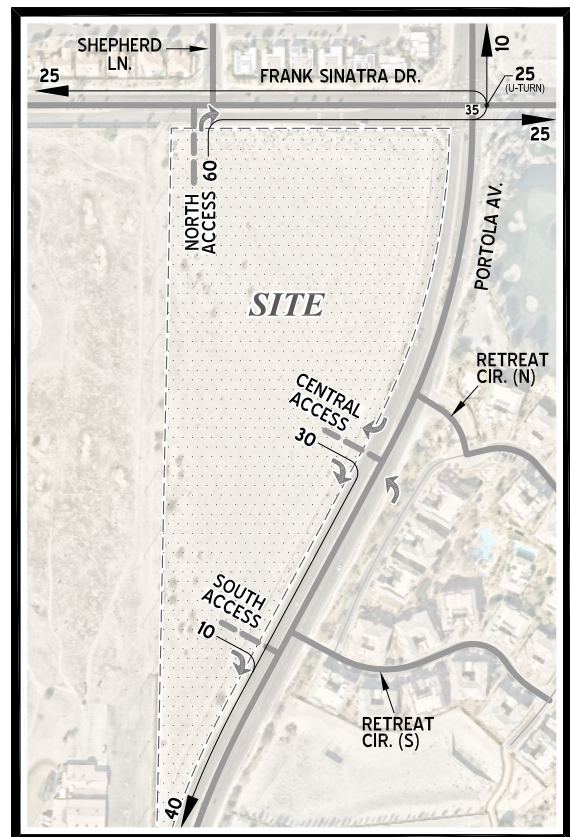
- ⑨ ■ EXISTING ANALYSIS LOCATION
- ② ■ FUTURE ANALYSIS LOCATION
- ■ FUTURE PROJECT DRIVEWAY
- ↘ ■ RIGHT-OUT ONLY (EXIT ONLY)
- ↔ ■ RIGHT-IN/RIGHT-OUT/LEFT-IN ONLY



### EXHIBIT 3: PROJECT TRIP DISTRIBUTION (OUTBOUND)



## ON-SITE

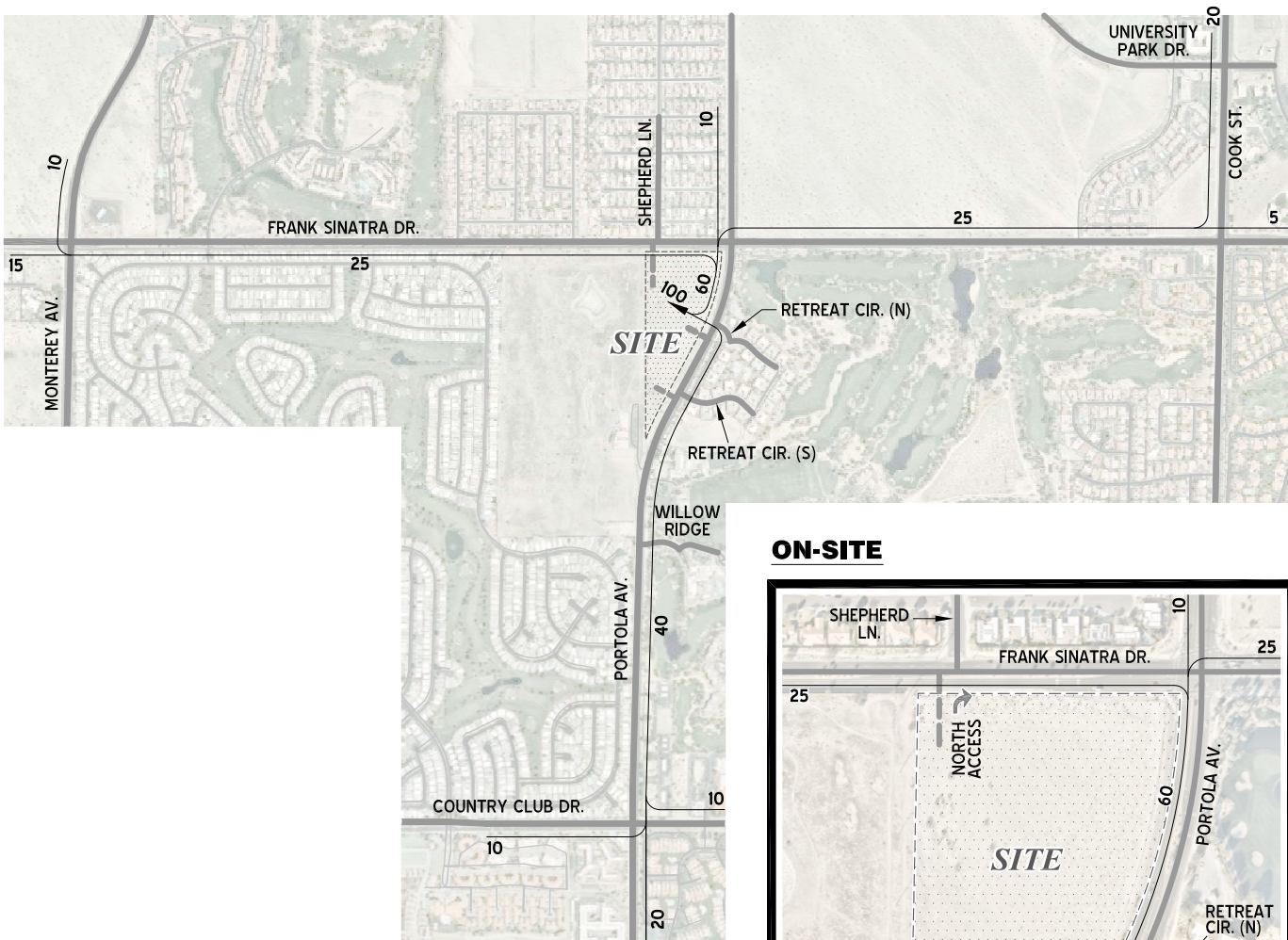


**LEGEND:**

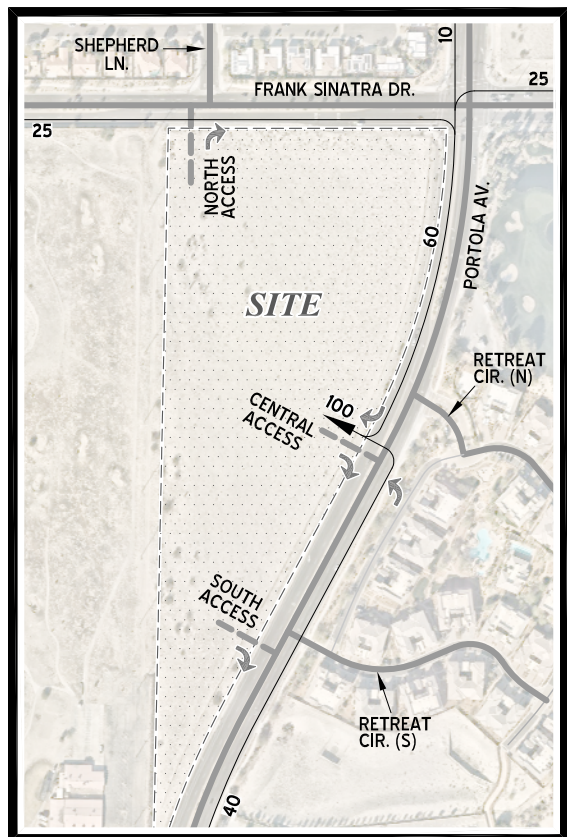
- 10 = PERCENT FROM PROJECT
- = FUTURE ROADWAY
- ↘ = RIGHT-OUT ONLY (EXIT ONLY)
- ↘ ↙ = RIGHT-IN/RIGHT-OUT/LEFT-IN ONLY



## EXHIBIT 4: PROJECT TRIP DISTRIBUTION (INBOUND)



### ON-SITE

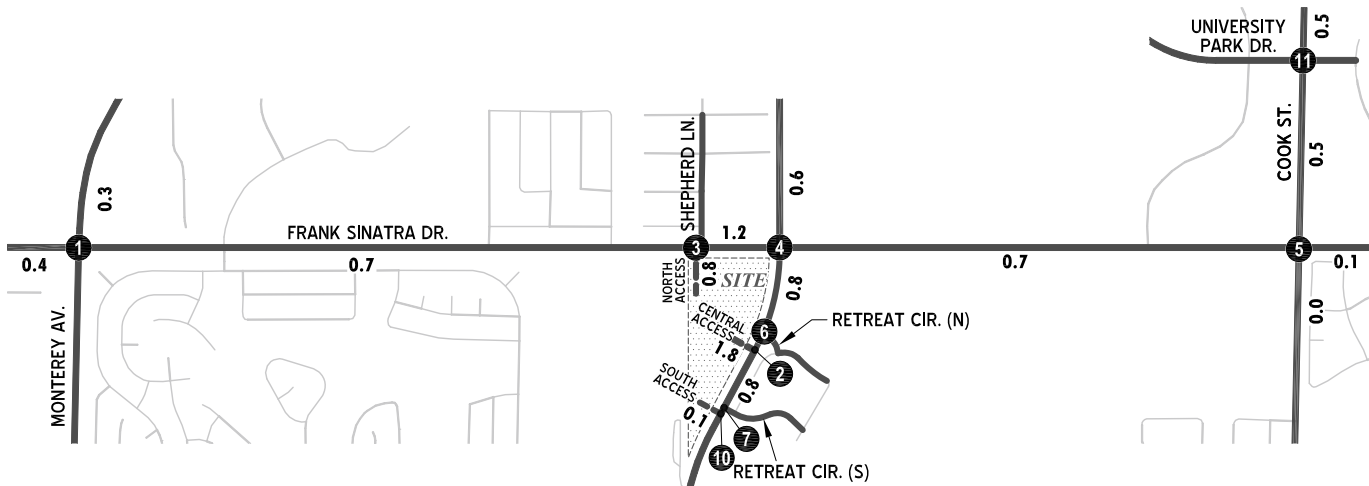


### LEGEND:

- 10 ■ PERCENT TO PROJECT
- FUTURE ROADWAY
- ↘ RIGHT-OUT ONLY (EXIT ONLY)
- ↘↘ RIGHT-IN/RIGHT-OUT/LEFT-IN ONLY



## EXHIBIT 5: PROJECT ONLY TRAFFIC VOLUMES



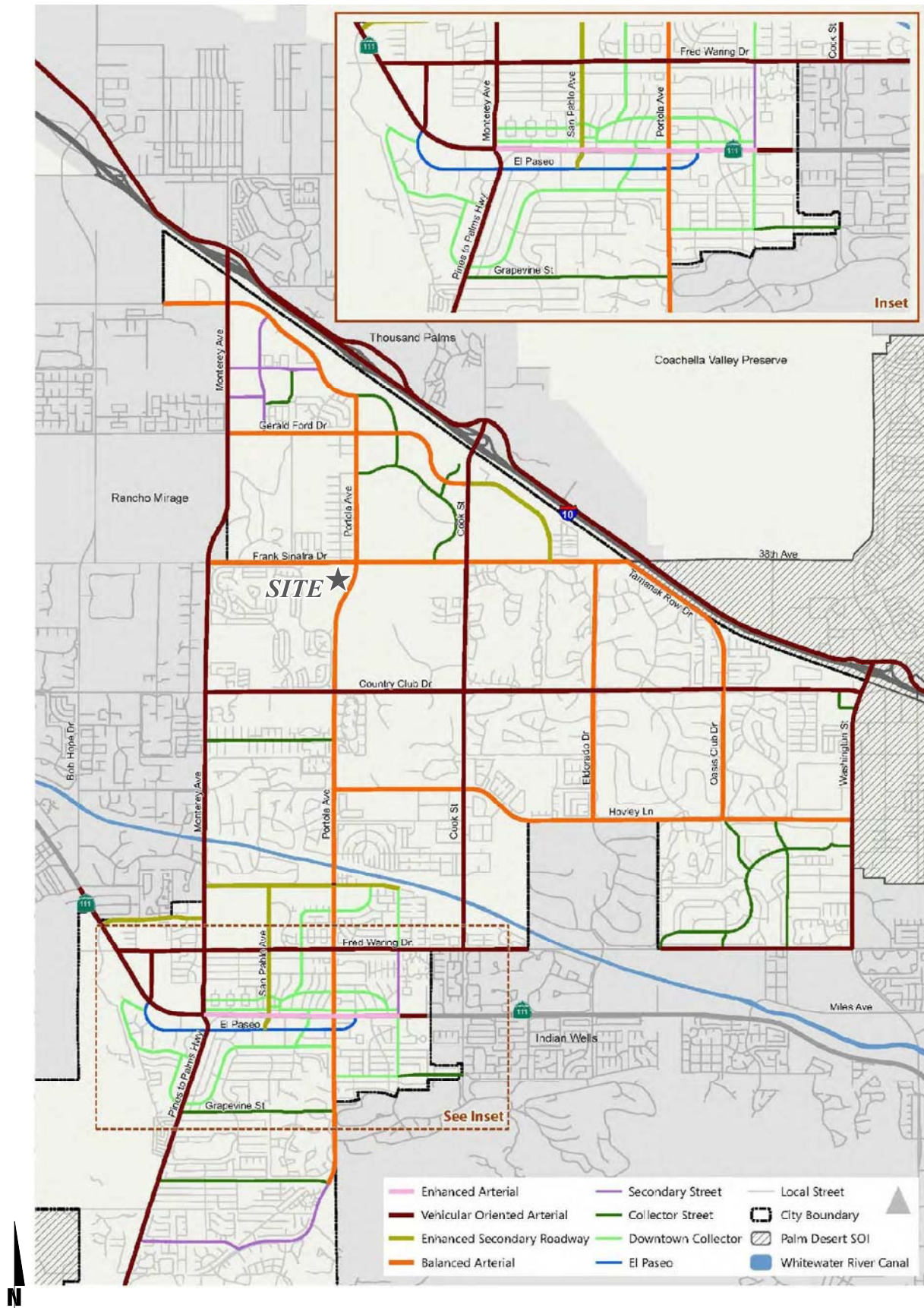
### AM PEAK HOUR

|                                                           |                                              |                                              |
|-----------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>1</b> Monterey Av. & Frank Sinatra Dr.<br>             | <b>2</b> Portola Av. & Central Access<br>    |                                              |
| <b>3</b> Shepherd Ln. - N. Access & Frank Sinatra Dr.<br> | <b>4</b> Portola Av. & Frank Sinatra Dr.<br> | <b>5</b> Cook St. & Frank Sinatra Dr.<br>    |
| <b>6</b> Portola Av. & Retreat Cir. (N)<br>               | <b>7</b> Portola Av. & Retreat Cir. (S)<br>  | <b>8</b> Portola Av. & Willow Ridge<br>      |
| <b>9</b> Portola Av. & Country Club Dr.<br>               | <b>10</b> Portola Av. & South Access<br>     | <b>11</b> Cook St. & University Park Dr.<br> |

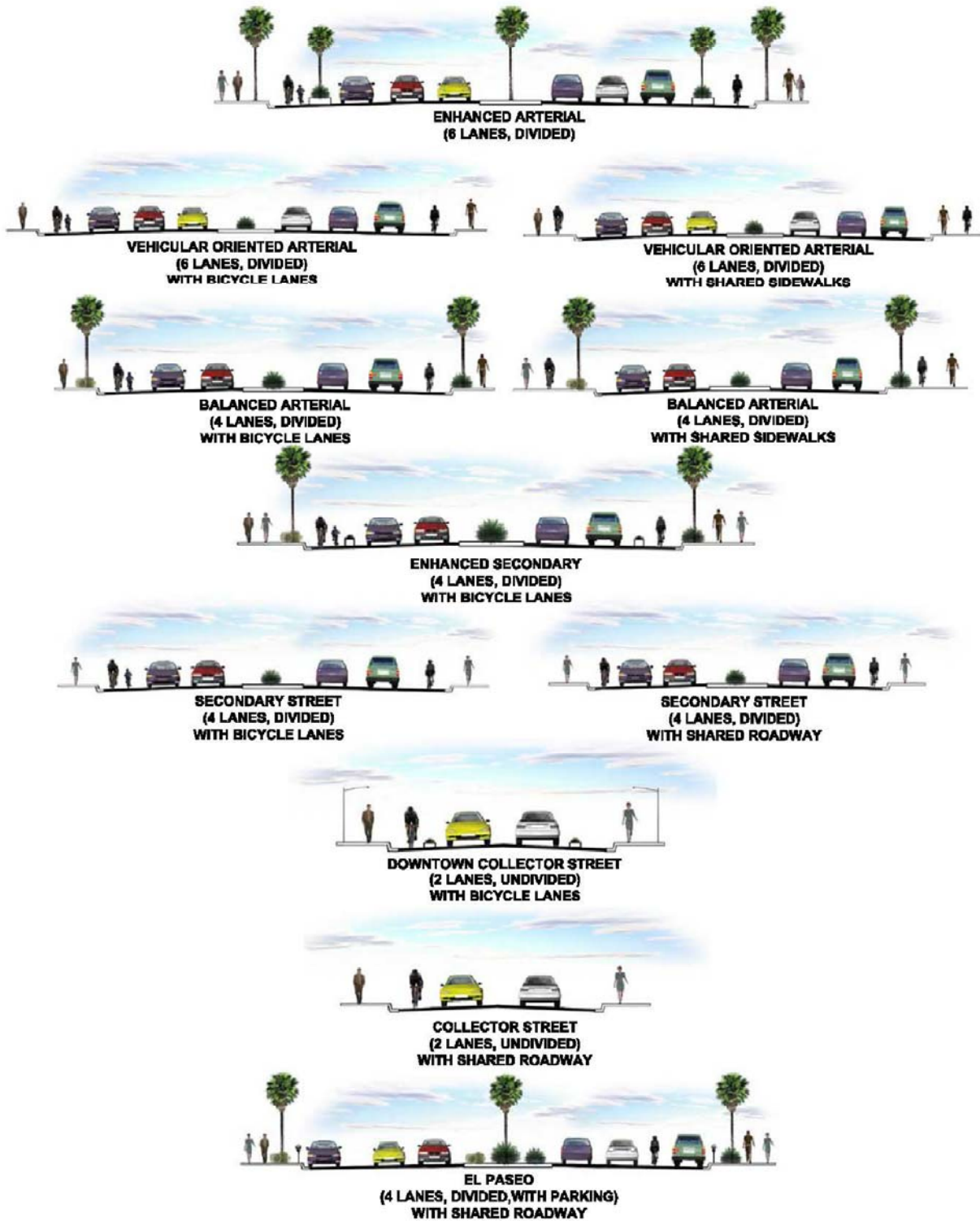
### PM PEAK HOUR

|                                                           |                                              |                                              |
|-----------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| <b>1</b> Monterey Av. & Frank Sinatra Dr.<br>             | <b>2</b> Portola Av. & Central Access<br>    |                                              |
| <b>3</b> Shepherd Ln. - N. Access & Frank Sinatra Dr.<br> | <b>4</b> Portola Av. & Frank Sinatra Dr.<br> | <b>5</b> Cook St. & Frank Sinatra Dr.<br>    |
| <b>6</b> Portola Av. & Retreat Cir. (N)<br>               | <b>7</b> Portola Av. & Retreat Cir. (S)<br>  | <b>8</b> Portola Av. & Willow Ridge<br>      |
| <b>9</b> Portola Av. & Country Club Dr.<br>               | <b>10</b> Portola Av. & S. Access<br>        | <b>11</b> Cook St. & University Park Dr.<br> |

## EXHIBIT 6: CITY OF PALM DESERT GENERAL PLAN CIRCULATION ELEMENT

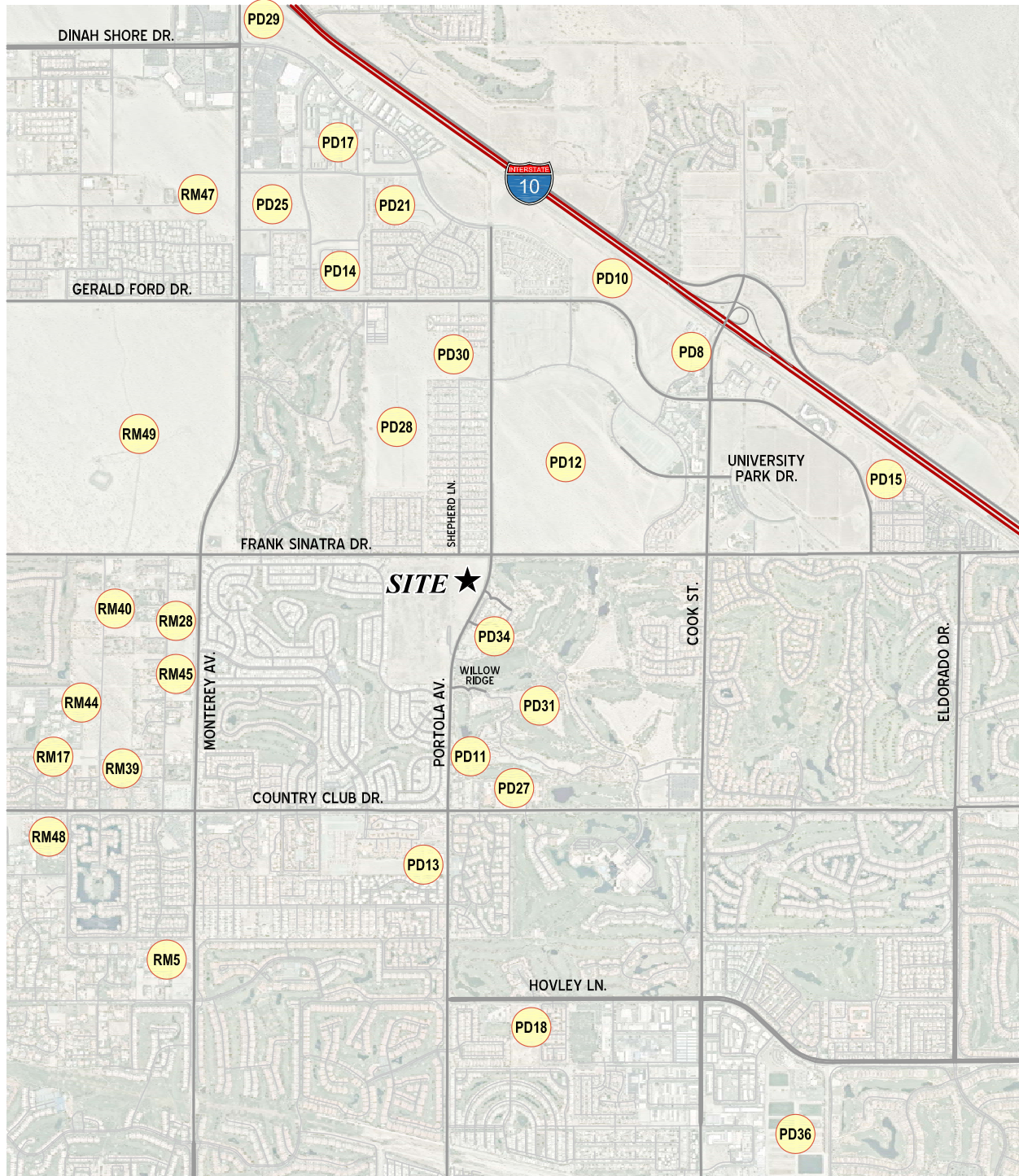


## EXHIBIT 7: CITY OF PALM DESERT GENERAL PLAN ROADWAY CROSS-SECTIONS



SOURCE: CITY OF PALM DESERT

## EXHIBIT 8: CUMULATIVE DEVELOPMENT LOCATION MAP



### LEGEND:

# = CUMULATIVE DEVELOPMENT ID



TABLE 2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

| ID                           | Project Name                           | Land Use <sup>1</sup>               | Quantity | Units <sup>2</sup> |
|------------------------------|----------------------------------------|-------------------------------------|----------|--------------------|
| <b>CITY OF PALM DESERT</b>   |                                        |                                     |          |                    |
| PD8                          | Fairfield Inn & Suites Marriott Hotel  | Hotel                               | 108      | RM                 |
| PD10                         | Millennium Palm Desert                 | SFDR                                | 166      | DU                 |
|                              |                                        | Multi-Family                        | 612      | DU                 |
|                              |                                        | Commercial                          | 551.0    | TSF                |
|                              |                                        | Hotel                               | 250      | RM                 |
| PD11                         | Scotelle Office Building               | Commercial                          | 10.732   | TSF                |
| PD12                         | University Park                        | SFDR                                | 773      | DU                 |
|                              |                                        | Multi-Family                        | 336      | DU                 |
| PD13                         | Villa Portofino                        | Congregate Care                     | 161      | DU                 |
|                              |                                        | Assisted Living                     | 150      | DU                 |
|                              |                                        | SFDR                                | 288      | DU                 |
|                              |                                        | Multi-Family                        | 182      | DU                 |
| PD14                         | Dolce                                  | SFDR                                | 159      | DU                 |
| PD15                         | Spanish Walk                           | Multi-Family                        | 150      | DU                 |
| PD17                         | Falling Waters                         | SFDR                                | 159      | DU                 |
| PD18                         | The Sands Apartments                   | Apartments                          | 142      | DU                 |
| PD21                         | Ponderosa II                           | SFDR                                | 111      | DU                 |
|                              |                                        | Multi-Family                        | 114      | DU                 |
| PD25                         | Monterey Specific Plan                 | Multi-Family                        | 384      | DU                 |
|                              |                                        | Commercial                          | 120.0    | TSF                |
| PD27                         | Wolff Cottages                         | Senior Adult Living                 | 167.0    | DU                 |
| PD28                         | Vitalia/Refuge Palm Desert Residential | SFDR                                | 211      | DU                 |
|                              |                                        | Rental Homes                        | 165      | DU                 |
|                              |                                        | Paired Housing                      | 128      | DU                 |
|                              |                                        | Apartments                          | 270      | DU                 |
| PD29                         | Monterey Crossings                     | Commercial                          | 120.0    | TSF                |
| PD30                         | Santa Barbara Apartment                | Multi-Family                        | 48       | DU                 |
| PD31                         | Desert Surf                            | Resort Hotel                        | 350      | RM                 |
|                              |                                        | Surf Lagoon                         | 1350     | Guests             |
|                              |                                        | Shopping Center                     | 4.0      | TSF                |
|                              |                                        | High-Turnover (Sit-Down) Restaurant | 11.250   | TSF                |
| PD34                         | The Retreat at Desert Willow           | Condominiums                        | 112      | DU                 |
| PD36                         | Laboratory/Office Space Building       | Laboratory/Office Space             | 20.5     | TSF                |
| <b>CITY OF RANCHO MIRAGE</b> |                                        |                                     |          |                    |
| RM5                          | PDP 13003/FDP 13004                    | SFDR                                | 32       | DU                 |
| RM17                         | TTM 36623/PDP 14003                    | SFDR                                | 17       | DU                 |
| RM28                         | TTM 32308 (Los Ranchos)                | SFDR                                | 7        | DU                 |
| RM39                         | TPM 34233                              | SFDR                                | 4        | DU                 |
| RM40                         | TPM 34741                              | SFDR                                | 4        | DU                 |
| RM44                         | TPM 36683                              | SFDR                                | 1        | DU                 |
| RM45                         | TPM 36849                              | SFDR                                | 3        | DU                 |
| RM47                         | Monterey Medical Center                | Medical Office                      | 75.164   | TSF                |
| RM48                         | Pulte Homes / Del Webb                 | Assisted Living                     | 84       | Beds               |
| RM49                         | Section 31 Specific Plan               | Hotel                               | 400      | RM                 |
|                              |                                        | Retail                              | 175.0    | TSF                |
|                              |                                        | Multi-Family (Mid Rise)             | 832      | DU                 |
|                              |                                        | Single Family                       | 1100     | DU                 |

<sup>1</sup> SFDR = Single Family Detached Residential<sup>2</sup> DU = Dwelling Units; TSF = Thousand Square Feet; RM = Rooms

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**APPENDIX 3.1:**

**EXISTING TRAFFIC COUNTS – (2022)**

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City of Palm Desert  
N/S: Monterey Avenue  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 01\_PLD\_Mont\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

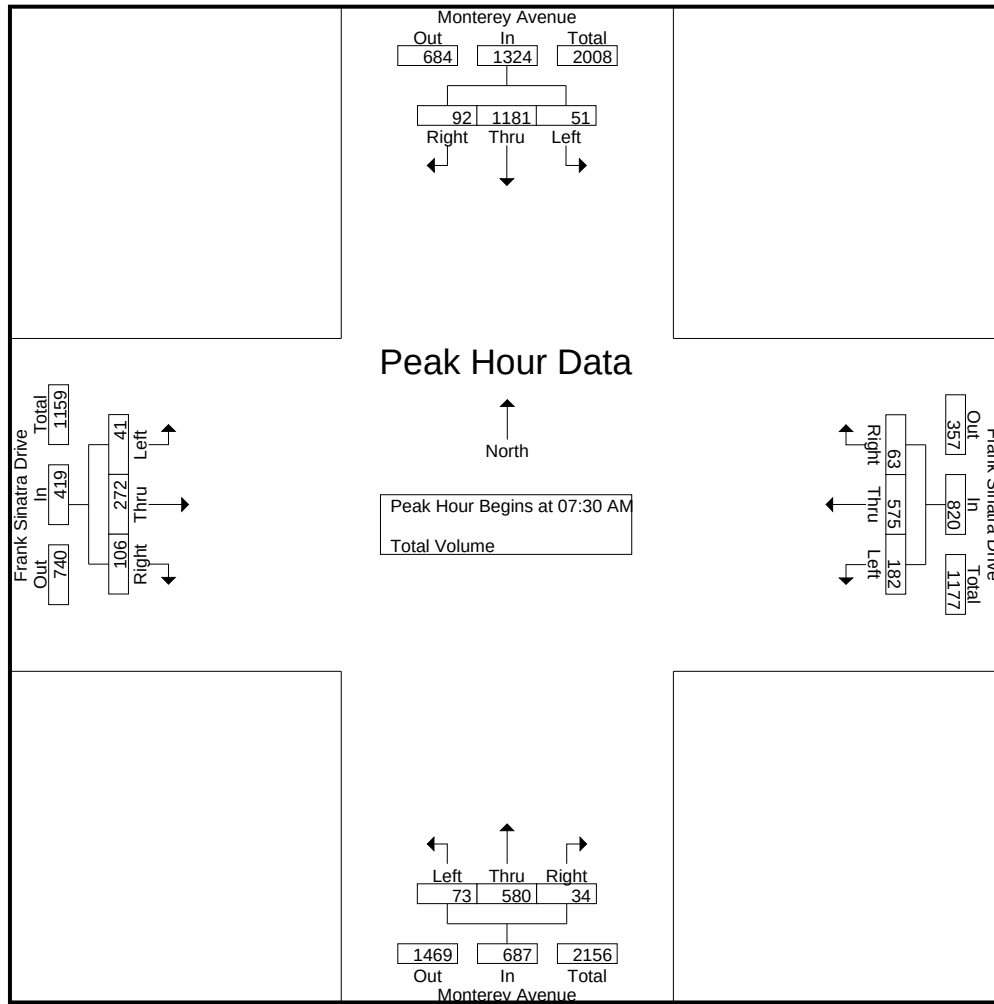
Groups Printed- Total Volume

|             | Monterey Avenue Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Monterey Avenue Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|----------------------------|------|-------|------------|-------------------------------|------|-------|------------|----------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                       | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                       | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 3                          | 177  | 18    | 198        | 17                            | 90   | 10    | 117        | 15                         | 99   | 3     | 117        | 7                             | 37   | 21    | 65         | 497        |
| 07:15 AM    | 15                         | 213  | 15    | 243        | 36                            | 159  | 12    | 207        | 18                         | 116  | 10    | 144        | 4                             | 55   | 18    | 77         | 671        |
| 07:30 AM    | 8                          | 283  | 18    | 309        | 56                            | 163  | 11    | 230        | 13                         | 111  | 6     | 130        | 10                            | 83   | 36    | 129        | 798        |
| 07:45 AM    | 12                         | 366  | 23    | 401        | 55                            | 146  | 17    | 218        | 20                         | 162  | 14    | 196        | 7                             | 52   | 34    | 93         | 908        |
| Total       | 38                         | 1039 | 74    | 1151       | 164                           | 558  | 50    | 772        | 66                         | 488  | 33    | 587        | 28                            | 227  | 109   | 364        | 2874       |
| 08:00 AM    | 14                         | 269  | 26    | 309        | 37                            | 144  | 17    | 198        | 18                         | 141  | 5     | 164        | 10                            | 70   | 24    | 104        | 775        |
| 08:15 AM    | 17                         | 263  | 25    | 305        | 34                            | 122  | 18    | 174        | 22                         | 166  | 9     | 197        | 14                            | 67   | 12    | 93         | 769        |
| 08:30 AM    | 8                          | 271  | 21    | 300        | 38                            | 141  | 16    | 195        | 19                         | 147  | 14    | 180        | 14                            | 78   | 27    | 119        | 794        |
| 08:45 AM    | 16                         | 319  | 21    | 356        | 41                            | 111  | 18    | 170        | 19                         | 157  | 16    | 192        | 18                            | 70   | 29    | 117        | 835        |
| Total       | 55                         | 1122 | 93    | 1270       | 150                           | 518  | 69    | 737        | 78                         | 611  | 44    | 733        | 56                            | 285  | 92    | 433        | 3173       |
| Grand Total | 93                         | 2161 | 167   | 2421       | 314                           | 1076 | 119   | 1509       | 144                        | 1099 | 77    | 1320       | 84                            | 512  | 201   | 797        | 6047       |
| Apprch %    | 3.8                        | 89.3 | 6.9   |            | 20.8                          | 71.3 | 7.9   |            | 10.9                       | 83.3 | 5.8   |            | 10.5                          | 64.2 | 25.2  |            |            |
| Total %     | 1.5                        | 35.7 | 2.8   | 40         | 5.2                           | 17.8 | 2     | 25         | 2.4                        | 18.2 | 1.3   | 21.8       | 1.4                           | 8.5  | 3.3   | 13.2       |            |

|                                                            | Monterey Avenue Southbound |            |           |            | Frank Sinatra Drive Westbound |            |           |            | Monterey Avenue Northbound |            |           |            | Frank Sinatra Drive Eastbound |           |           |            |            |
|------------------------------------------------------------|----------------------------|------------|-----------|------------|-------------------------------|------------|-----------|------------|----------------------------|------------|-----------|------------|-------------------------------|-----------|-----------|------------|------------|
| Start Time                                                 | Left                       | Thru       | Right     | App. Total | Left                          | Thru       | Right     | App. Total | Left                       | Thru       | Right     | App. Total | Left                          | Thru      | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                            |            |           |            |                               |            |           |            |                            |            |           |            |                               |           |           |            |            |
| Peak Hour for Entire Intersection Begins at 07:30 AM       |                            |            |           |            |                               |            |           |            |                            |            |           |            |                               |           |           |            |            |
| 07:30 AM                                                   | 8                          | 283        | 18        | 309        | <b>56</b>                     | <b>163</b> | 11        | <b>230</b> | 13                         | 111        | 6         | 130        | 10                            | <b>83</b> | <b>36</b> | <b>129</b> | 798        |
| 07:45 AM                                                   | 12                         | <b>366</b> | 23        | <b>401</b> | 55                            | 146        | 17        | 218        | 20                         | 162        | <b>14</b> | 196        | 7                             | 52        | 34        | 93         | <b>908</b> |
| 08:00 AM                                                   | 14                         | 269        | <b>26</b> | 309        | 37                            | 144        | 17        | 198        | 18                         | 141        | 5         | 164        | 10                            | 70        | 24        | 104        | 775        |
| 08:15 AM                                                   | <b>17</b>                  | 263        | 25        | 305        | 34                            | 122        | <b>18</b> | 174        | <b>22</b>                  | <b>166</b> | 9         | <b>197</b> | <b>14</b>                     | 67        | 12        | 93         | 769        |
| Total Volume                                               | 51                         | 1181       | 92        | 1324       | 182                           | 575        | 63        | 820        | 73                         | 580        | 34        | 687        | 41                            | 272       | 106       | 419        | 3250       |
| % App. Total                                               | 3.9                        | 89.2       | 6.9       |            | 22.2                          | 70.1       | 7.7       |            | 10.6                       | 84.4       | 4.9       |            | 9.8                           | 64.9      | 25.3      |            |            |
| PHF                                                        | .750                       | .807       | .885      | .825       | .813                          | .882       | .875      | .891       | .830                       | .873       | .607      | .872       | .732                          | .819      | .736      | .812       | .895       |

City of Palm Desert  
N/S: Monterey Avenue  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 01\_PLD\_Mont\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:30 AM  |            |           |            | 07:15 AM  |            |           |            | 07:45 AM  |            |      |            | 08:00 AM  |           |           |            |
|--------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|------|------------|-----------|-----------|-----------|------------|
| +0 mins.     | 8         | 283        | 18        | 309        | 36        | 159        | 12        | 207        | 20        | 162        | 14   | 196        | 10        | 70        | 24        | 104        |
| +15 mins.    | 12        | <b>366</b> | 23        | <b>401</b> | <b>56</b> | <b>163</b> | 11        | <b>230</b> | 18        | 141        | 5    | 164        | 14        | 67        | 12        | 93         |
| +30 mins.    | 14        | 269        | <b>26</b> | 309        | 55        | 146        | <b>17</b> | 218        | <b>22</b> | <b>166</b> | 9    | <b>197</b> | 14        | <b>78</b> | 27        | <b>119</b> |
| +45 mins.    | <b>17</b> | 263        | 25        | 305        | 37        | 144        | 17        | 198        | 19        | 147        | 14   | 180        | <b>18</b> | 70        | <b>29</b> | 117        |
| Total Volume | 51        | 1181       | 92        | 1324       | 184       | 612        | 57        | 853        | 79        | 616        | 42   | 737        | 56        | 285       | 92        | 433        |
| % App. Total | 3.9       | 89.2       | 6.9       |            | 21.6      | 71.7       | 6.7       |            | 10.7      | 83.6       | 5.7  |            | 12.9      | 65.8      | 21.2      |            |
| PHF          | .750      | .807       | .885      | .825       | .821      | .939       | .838      | .927       | .898      | .928       | .750 | .935       | .778      | .913      | .793      | .910       |

City of Palm Desert  
N/S: Monterey Avenue  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 01\_PLD\_Mont\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

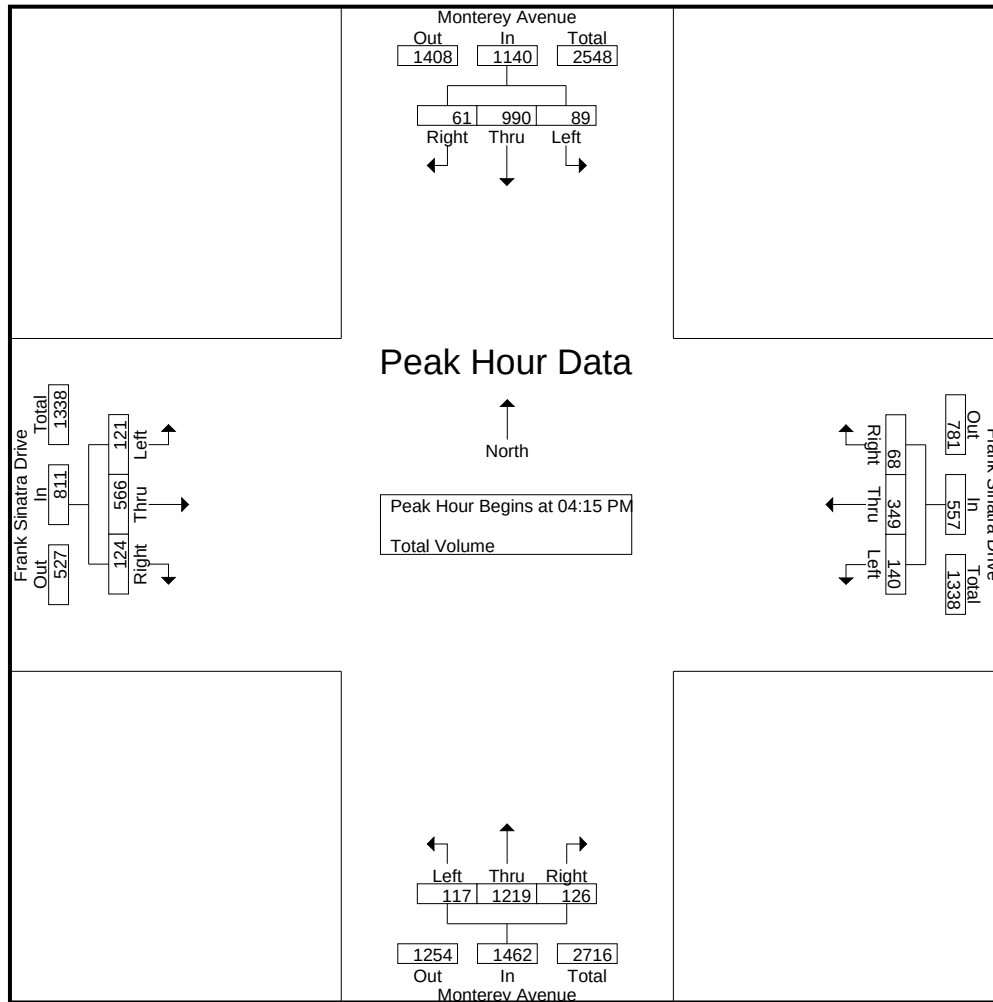
Groups Printed- Total Volume

|             | Monterey Avenue Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Monterey Avenue Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|----------------------------|------|-------|------------|-------------------------------|------|-------|------------|----------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                       | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                       | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 04:00 PM    | 23                         | 248  | 14    | 285        | 36                            | 79   | 15    | 130        | 29                         | 313  | 29    | 371        | 31                            | 120  | 28    | 179        | 965        |
| 04:15 PM    | 26                         | 263  | 23    | 312        | 27                            | 90   | 18    | 135        | 37                         | 315  | 38    | 390        | 30                            | 139  | 36    | 205        | 1042       |
| 04:30 PM    | 19                         | 270  | 14    | 303        | 32                            | 89   | 19    | 140        | 30                         | 295  | 26    | 351        | 32                            | 124  | 29    | 185        | 979        |
| 04:45 PM    | 20                         | 233  | 12    | 265        | 29                            | 85   | 15    | 129        | 21                         | 307  | 35    | 363        | 26                            | 150  | 30    | 206        | 963        |
| Total       | 88                         | 1014 | 63    | 1165       | 124                           | 343  | 67    | 534        | 117                        | 1230 | 128   | 1475       | 119                           | 533  | 123   | 775        | 3949       |
| 05:00 PM    | 24                         | 224  | 12    | 260        | 52                            | 85   | 16    | 153        | 29                         | 302  | 27    | 358        | 33                            | 153  | 29    | 215        | 986        |
| 05:15 PM    | 26                         | 236  | 11    | 273        | 41                            | 94   | 14    | 149        | 41                         | 355  | 23    | 419        | 26                            | 135  | 28    | 189        | 1030       |
| 05:30 PM    | 21                         | 230  | 8     | 259        | 38                            | 89   | 18    | 145        | 18                         | 285  | 28    | 331        | 22                            | 96   | 21    | 139        | 874        |
| 05:45 PM    | 20                         | 246  | 10    | 276        | 21                            | 78   | 19    | 118        | 16                         | 258  | 25    | 299        | 16                            | 92   | 26    | 134        | 827        |
| Total       | 91                         | 936  | 41    | 1068       | 152                           | 346  | 67    | 565        | 104                        | 1200 | 103   | 1407       | 97                            | 476  | 104   | 677        | 3717       |
| Grand Total | 179                        | 1950 | 104   | 2233       | 276                           | 689  | 134   | 1099       | 221                        | 2430 | 231   | 2882       | 216                           | 1009 | 227   | 1452       | 7666       |
| Apprch %    | 8                          | 87.3 | 4.7   |            | 25.1                          | 62.7 | 12.2  |            | 7.7                        | 84.3 | 8     |            | 14.9                          | 69.5 | 15.6  |            |            |
| Total %     | 2.3                        | 25.4 | 1.4   | 29.1       | 3.6                           | 9    | 1.7   | 14.3       | 2.9                        | 31.7 | 3     | 37.6       | 2.8                           | 13.2 | 3     | 18.9       |            |

|                                                            | Monterey Avenue Southbound |            |           |            | Frank Sinatra Drive Westbound |           |           |            | Monterey Avenue Northbound |            |           |            | Frank Sinatra Drive Eastbound |            |           |            |             |
|------------------------------------------------------------|----------------------------|------------|-----------|------------|-------------------------------|-----------|-----------|------------|----------------------------|------------|-----------|------------|-------------------------------|------------|-----------|------------|-------------|
| Start Time                                                 | Left                       | Thru       | Right     | App. Total | Left                          | Thru      | Right     | App. Total | Left                       | Thru       | Right     | App. Total | Left                          | Thru       | Right     | App. Total | Int. Total  |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                            |            |           |            |                               |           |           |            |                            |            |           |            |                               |            |           |            |             |
| Peak Hour for Entire Intersection Begins at 04:15 PM       |                            |            |           |            |                               |           |           |            |                            |            |           |            |                               |            |           |            |             |
| 04:15 PM                                                   | <b>26</b>                  | 263        | <b>23</b> | <b>312</b> | 27                            | <b>90</b> | 18        | 135        | <b>37</b>                  | <b>315</b> | <b>38</b> | <b>390</b> | 30                            | 139        | <b>36</b> | 205        | <b>1042</b> |
| 04:30 PM                                                   | 19                         | <b>270</b> | 14        | 303        | 32                            | 89        | <b>19</b> | 140        | 30                         | 295        | 26        | 351        | 32                            | 124        | 29        | 185        | 979         |
| 04:45 PM                                                   | 20                         | 233        | 12        | 265        | 29                            | 85        | 15        | 129        | 21                         | 307        | 35        | 363        | 26                            | 150        | 30        | 206        | 963         |
| 05:00 PM                                                   | 24                         | 224        | 12        | 260        | <b>52</b>                     | 85        | 16        | <b>153</b> | 29                         | 302        | 27        | 358        | <b>33</b>                     | <b>153</b> | 29        | <b>215</b> | 986         |
| Total Volume                                               | 89                         | 990        | 61        | 1140       | 140                           | 349       | 68        | 557        | 117                        | 1219       | 126       | 1462       | 121                           | 566        | 124       | 811        | 3970        |
| % App. Total                                               | 7.8                        | 86.8       | 5.4       |            | 25.1                          | 62.7      | 12.2      |            | 8                          | 83.4       | 8.6       |            | 14.9                          | 69.8       | 15.3      |            |             |
| PHF                                                        | .856                       | .917       | .663      | .913       | .673                          | .969      | .895      | .910       | .791                       | .967       | .829      | .937       | .917                          | .925       | .861      | .943       | .952        |

City of Palm Desert  
N/S: Monterey Avenue  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 01\_PLD\_Mont\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:00 PM  |            |           |            | 04:45 PM  |           |           |            | 04:30 PM  |            |           |            | 04:15 PM  |            |           |            |
|--------------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| +0 mins.     | 23        | 248        | 14        | 285        | 29        | 85        | 15        | 129        | 30        | 295        | 26        | 351        | 30        | 139        | <b>36</b> | 205        |
| +15 mins.    | <b>26</b> | 263        | <b>23</b> | <b>312</b> | <b>52</b> | 85        | 16        | <b>153</b> | 21        | 307        | <b>35</b> | 363        | 32        | 124        | 29        | 185        |
| +30 mins.    | 19        | <b>270</b> | 14        | 303        | 41        | <b>94</b> | 14        | 149        | 29        | 302        | 27        | 358        | 26        | 150        | 30        | 206        |
| +45 mins.    | 20        | 233        | 12        | 265        | 38        | 89        | <b>18</b> | 145        | <b>41</b> | <b>355</b> | 23        | <b>419</b> | <b>33</b> | <b>153</b> | 29        | <b>215</b> |
| Total Volume | 88        | 1014       | 63        | 1165       | 160       | 353       | 63        | 576        | 121       | 1259       | 111       | 1491       | 121       | 566        | 124       | 811        |
| % App. Total | 7.6       | 87         | 5.4       |            | 27.8      | 61.3      | 10.9      |            | 8.1       | 84.4       | 7.4       |            | 14.9      | 69.8       | 15.3      |            |
| PHF          | .846      | .939       | .685      | .933       | .769      | .939      | .875      | .941       | .738      | .887       | .793      | .890       | .917      | .925       | .861      | .943       |

City of Palm Desert  
N/S: Shepherd Lane/North Access  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 03\_PLD\_Shep\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

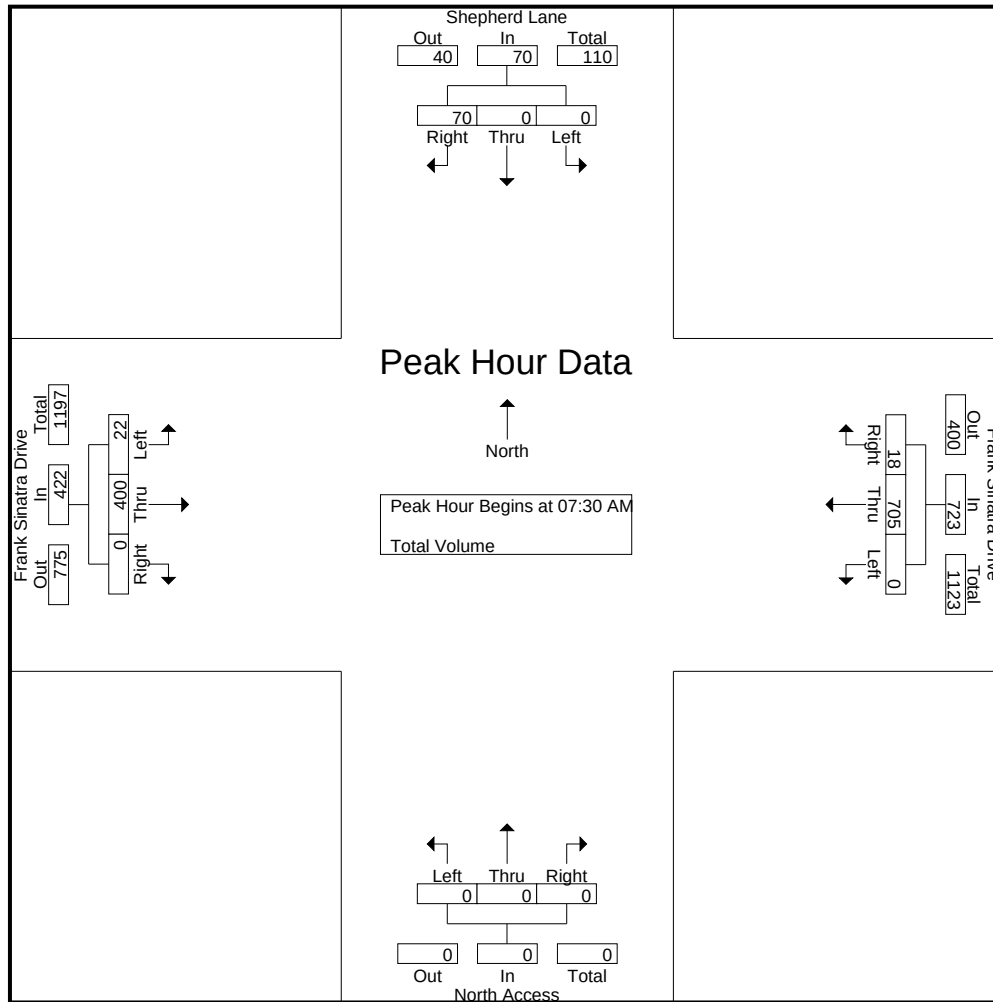
Groups Printed- Total Volume

|             | Shepherd Lane Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | North Access Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|--------------------------|------|-------|------------|-------------------------------|------|-------|------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                     | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 0                        | 0    | 10    | 10         | 0                             | 112  | 6     | 118        | 0                       | 0    | 0     | 0          | 3                             | 57   | 0     | 60         | 188        |
| 07:15 AM    | 0                        | 0    | 19    | 19         | 0                             | 162  | 2     | 164        | 0                       | 0    | 0     | 0          | 4                             | 79   | 0     | 83         | 266        |
| 07:30 AM    | 0                        | 0    | 22    | 22         | 0                             | 193  | 0     | 193        | 0                       | 0    | 0     | 0          | 6                             | 112  | 0     | 118        | 333        |
| 07:45 AM    | 0                        | 0    | 18    | 18         | 0                             | 188  | 6     | 194        | 0                       | 0    | 0     | 0          | 6                             | 97   | 0     | 103        | 315        |
| Total       | 0                        | 0    | 69    | 69         | 0                             | 655  | 14    | 669        | 0                       | 0    | 0     | 0          | 19                            | 345  | 0     | 364        | 1102       |
| 08:00 AM    | 0                        | 0    | 11    | 11         | 0                             | 172  | 7     | 179        | 0                       | 0    | 0     | 0          | 5                             | 101  | 0     | 106        | 296        |
| 08:15 AM    | 0                        | 0    | 19    | 19         | 0                             | 152  | 5     | 157        | 0                       | 0    | 0     | 0          | 5                             | 90   | 0     | 95         | 271        |
| 08:30 AM    | 0                        | 0    | 9     | 9          | 0                             | 155  | 7     | 162        | 0                       | 0    | 0     | 0          | 12                            | 113  | 0     | 125        | 296        |
| 08:45 AM    | 0                        | 0    | 17    | 17         | 0                             | 137  | 9     | 146        | 0                       | 0    | 0     | 0          | 5                             | 106  | 0     | 111        | 274        |
| Total       | 0                        | 0    | 56    | 56         | 0                             | 616  | 28    | 644        | 0                       | 0    | 0     | 0          | 27                            | 410  | 0     | 437        | 1137       |
| Grand Total | 0                        | 0    | 125   | 125        | 0                             | 1271 | 42    | 1313       | 0                       | 0    | 0     | 0          | 46                            | 755  | 0     | 801        | 2239       |
| Apprch %    | 0                        | 0    | 100   |            | 0                             | 96.8 | 3.2   |            | 0                       | 0    | 0     |            | 5.7                           | 94.3 | 0     |            |            |
| Total %     | 0                        | 0    | 5.6   | 5.6        | 0                             | 56.8 | 1.9   | 58.6       | 0                       | 0    | 0     | 0          | 2.1                           | 33.7 | 0     | 35.8       |            |

|                                                            | Shepherd Lane Southbound |      |           |            | Frank Sinatra Drive Westbound |            |          |            | North Access Northbound |      |       |            | Frank Sinatra Drive Eastbound |            |       |            |            |
|------------------------------------------------------------|--------------------------|------|-----------|------------|-------------------------------|------------|----------|------------|-------------------------|------|-------|------------|-------------------------------|------------|-------|------------|------------|
| Start Time                                                 | Left                     | Thru | Right     | App. Total | Left                          | Thru       | Right    | App. Total | Left                    | Thru | Right | App. Total | Left                          | Thru       | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                          |      |           |            |                               |            |          |            |                         |      |       |            |                               |            |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:30 AM       |                          |      |           |            |                               |            |          |            |                         |      |       |            |                               |            |       |            |            |
| 07:30 AM                                                   | 0                        | 0    | <b>22</b> | <b>22</b>  | 0                             | <b>193</b> | 0        | 193        | 0                       | 0    | 0     | 0          | <b>6</b>                      | <b>112</b> | 0     | <b>118</b> | <b>333</b> |
| 07:45 AM                                                   | 0                        | 0    | 18        | 18         | 0                             | 188        | 6        | <b>194</b> | 0                       | 0    | 0     | 0          | 6                             | 97         | 0     | 103        | 315        |
| 08:00 AM                                                   | 0                        | 0    | 11        | 11         | 0                             | 172        | <b>7</b> | 179        | 0                       | 0    | 0     | 0          | 5                             | 101        | 0     | 106        | 296        |
| 08:15 AM                                                   | 0                        | 0    | 19        | 19         | 0                             | 152        | 5        | 157        | 0                       | 0    | 0     | 0          | 5                             | 90         | 0     | 95         | 271        |
| Total Volume                                               | 0                        | 0    | 70        | 70         | 0                             | 705        | 18       | 723        | 0                       | 0    | 0     | 0          | 22                            | 400        | 0     | 422        | 1215       |
| % App. Total                                               | 0                        | 0    | 100       |            | 0                             | 97.5       | 2.5      |            | 0                       | 0    | 0     |            | 5.2                           | 94.8       | 0     |            |            |
| PHF                                                        | .000                     | .000 | .795      | .795       | .000                          | .913       | .643     | .932       | .000                    | .000 | .000  | .000       | .917                          | .893       | .000  | .894       | .912       |

City of Palm Desert  
N/S: Shepherd Lane/North Access  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 03\_PLD\_Shep\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:15 AM |      |           |           | 07:15 AM |            |          |            | 07:00 AM |      |      |      | 08:00 AM  |            |      |            |
|--------------|----------|------|-----------|-----------|----------|------------|----------|------------|----------|------|------|------|-----------|------------|------|------------|
| +0 mins.     | 0        | 0    | 19        | 19        | 0        | 162        | 2        | 164        | 0        | 0    | 0    | 0    | 5         | 101        | 0    | 106        |
| +15 mins.    | 0        | 0    | <b>22</b> | <b>22</b> | 0        | <b>193</b> | 0        | 193        | 0        | 0    | 0    | 0    | 5         | 90         | 0    | 95         |
| +30 mins.    | 0        | 0    | 18        | 18        | 0        | 188        | 6        | <b>194</b> | 0        | 0    | 0    | 0    | <b>12</b> | <b>113</b> | 0    | <b>125</b> |
| +45 mins.    | 0        | 0    | 11        | 11        | 0        | 172        | <b>7</b> | 179        | 0        | 0    | 0    | 0    | 5         | 106        | 0    | 111        |
| Total Volume | 0        | 0    | 70        | 70        | 0        | 715        | 15       | 730        | 0        | 0    | 0    | 0    | 27        | 410        | 0    | 437        |
| % App. Total | 0        | 0    | 100       |           | 0        | 97.9       | 2.1      |            | 0        | 0    | 0    |      | 6.2       | 93.8       | 0    |            |
| PHF          | .000     | .000 | .795      | .795      | .000     | .926       | .536     | .941       | .000     | .000 | .000 | .000 | .563      | .907       | .000 | .874       |

City of Palm Desert  
N/S: Shepherd Lane/North Access  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 03\_PLD\_Shep\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

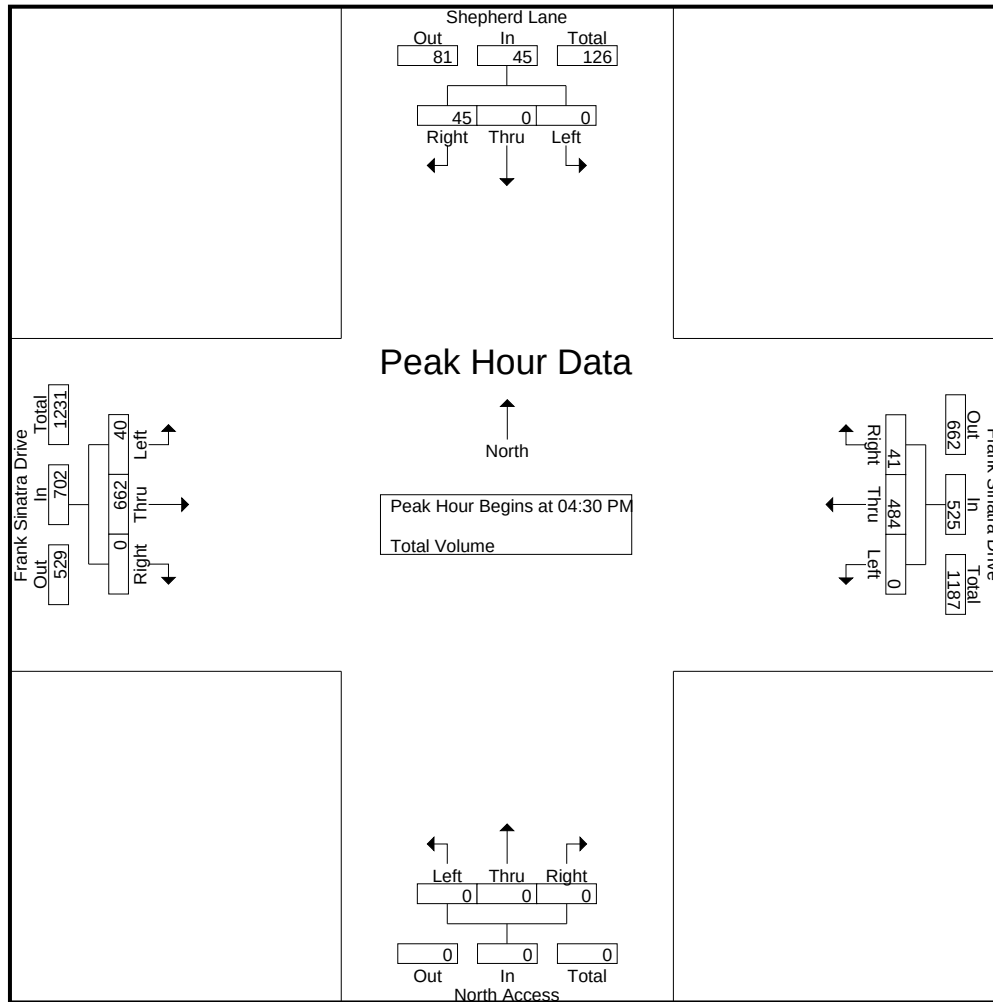
Groups Printed- Total Volume

|             | Shepherd Lane Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | North Access Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|--------------------------|------|-------|------------|-------------------------------|------|-------|------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                     | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 04:00 PM    | 0                        | 0    | 10    | 10         | 0                             | 111  | 10    | 121        | 0                       | 0    | 0     | 0          | 11                            | 144  | 0     | 155        | 286        |
| 04:15 PM    | 0                        | 0    | 14    | 14         | 0                             | 125  | 5     | 130        | 0                       | 0    | 0     | 0          | 9                             | 170  | 0     | 179        | 323        |
| 04:30 PM    | 0                        | 0    | 10    | 10         | 0                             | 118  | 10    | 128        | 0                       | 0    | 0     | 0          | 12                            | 149  | 0     | 161        | 299        |
| 04:45 PM    | 0                        | 0    | 9     | 9          | 0                             | 114  | 7     | 121        | 0                       | 0    | 0     | 0          | 6                             | 163  | 0     | 169        | 299        |
| Total       | 0                        | 0    | 43    | 43         | 0                             | 468  | 32    | 500        | 0                       | 0    | 0     | 0          | 38                            | 626  | 0     | 664        | 1207       |
| 05:00 PM    | 0                        | 0    | 10    | 10         | 0                             | 124  | 10    | 134        | 0                       | 0    | 0     | 0          | 15                            | 185  | 0     | 200        | 344        |
| 05:15 PM    | 0                        | 0    | 16    | 16         | 0                             | 128  | 14    | 142        | 0                       | 0    | 0     | 0          | 7                             | 165  | 0     | 172        | 330        |
| 05:30 PM    | 0                        | 0    | 13    | 13         | 0                             | 116  | 5     | 121        | 0                       | 0    | 0     | 0          | 10                            | 125  | 0     | 135        | 269        |
| 05:45 PM    | 0                        | 0    | 9     | 9          | 0                             | 103  | 6     | 109        | 0                       | 0    | 0     | 0          | 8                             | 116  | 0     | 124        | 242        |
| Total       | 0                        | 0    | 48    | 48         | 0                             | 471  | 35    | 506        | 0                       | 0    | 0     | 0          | 40                            | 591  | 0     | 631        | 1185       |
| Grand Total | 0                        | 0    | 91    | 91         | 0                             | 939  | 67    | 1006       | 0                       | 0    | 0     | 0          | 78                            | 1217 | 0     | 1295       | 2392       |
| Apprch %    | 0                        | 0    | 100   |            | 0                             | 93.3 | 6.7   |            | 0                       | 0    | 0     |            | 6                             | 94   | 0     |            |            |
| Total %     | 0                        | 0    | 3.8   | 3.8        | 0                             | 39.3 | 2.8   | 42.1       | 0                       | 0    | 0     | 0          | 3.3                           | 50.9 | 0     | 54.1       |            |

|                                                            | Shepherd Lane Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | North Access Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|------------------------------------------------------------|--------------------------|------|-------|------------|-------------------------------|------|-------|------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time                                                 | Left                     | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                          |      |       |            |                               |      |       |            |                         |      |       |            |                               |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                          |      |       |            |                               |      |       |            |                         |      |       |            |                               |      |       |            |            |
| 04:30 PM                                                   | 0                        | 0    | 10    | 10         | 0                             | 118  | 10    | 128        | 0                       | 0    | 0     | 0          | 12                            | 149  | 0     | 161        | 299        |
| 04:45 PM                                                   | 0                        | 0    | 9     | 9          | 0                             | 114  | 7     | 121        | 0                       | 0    | 0     | 0          | 6                             | 163  | 0     | 169        | 299        |
| 05:00 PM                                                   | 0                        | 0    | 10    | 10         | 0                             | 124  | 10    | 134        | 0                       | 0    | 0     | 0          | 15                            | 185  | 0     | 200        | 344        |
| 05:15 PM                                                   | 0                        | 0    | 16    | 16         | 0                             | 128  | 14    | 142        | 0                       | 0    | 0     | 0          | 7                             | 165  | 0     | 172        | 330        |
| Total Volume                                               | 0                        | 0    | 45    | 45         | 0                             | 484  | 41    | 525        | 0                       | 0    | 0     | 0          | 40                            | 662  | 0     | 702        | 1272       |
| % App. Total                                               | 0                        | 0    | 100   |            | 0                             | 92.2 | 7.8   |            | 0                       | 0    | 0     |            | 5.7                           | 94.3 | 0     |            |            |
| PHF                                                        | .000                     | .000 | .703  | .703       | .000                          | .945 | .732  | .924       | .000                    | .000 | .000  | .000       | .667                          | .895 | .000  | .878       | .924       |

City of Palm Desert  
N/S: Shepherd Lane/North Access  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 03\_PLD\_Shep\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:45 PM |      |      |      | 04:30 PM |      |      |      | 04:00 PM |      |      |      | 04:15 PM |      |      |      |
|--------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|----------|------|------|------|
| +0 mins.     | 0        | 0    | 9    | 9    | 0        | 118  | 10   | 128  | 0        | 0    | 0    | 0    | 9        | 170  | 0    | 179  |
| +15 mins.    | 0        | 0    | 10   | 10   | 0        | 114  | 7    | 121  | 0        | 0    | 0    | 0    | 12       | 149  | 0    | 161  |
| +30 mins.    | 0        | 0    | 16   | 16   | 0        | 124  | 10   | 134  | 0        | 0    | 0    | 0    | 6        | 163  | 0    | 169  |
| +45 mins.    | 0        | 0    | 13   | 13   | 0        | 128  | 14   | 142  | 0        | 0    | 0    | 0    | 15       | 185  | 0    | 200  |
| Total Volume | 0        | 0    | 48   | 48   | 0        | 484  | 41   | 525  | 0        | 0    | 0    | 0    | 42       | 667  | 0    | 709  |
| % App. Total | 0        | 0    | 100  |      | 0        | 92.2 | 7.8  |      | 0        | 0    | 0    |      | 5.9      | 94.1 | 0    |      |
| PHF          | .000     | .000 | .750 | .750 | .000     | .945 | .732 | .924 | .000     | .000 | .000 | .000 | .700     | .901 | .000 | .886 |

City of Palm Desert  
N/S: Portola Road  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 04\_PLD\_Port\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

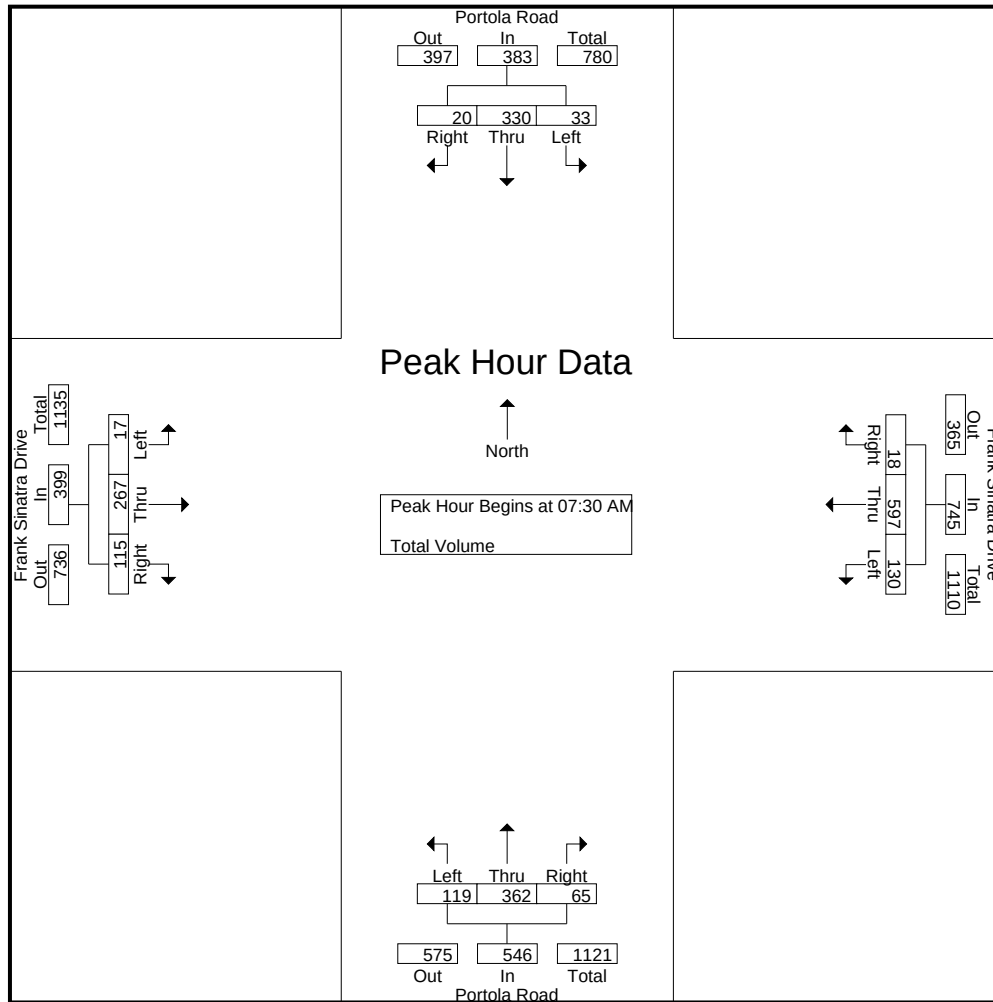
Groups Printed- Total Volume

|             | Portola Road Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Portola Road Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 6                       | 43   | 4     | 53         | 20                            | 100  | 3     | 123        | 15                      | 49   | 4     | 68         | 1                             | 40   | 10    | 51         | 295        |
| 07:15 AM    | 8                       | 69   | 4     | 81         | 23                            | 140  | 4     | 167        | 19                      | 54   | 8     | 81         | 5                             | 52   | 25    | 82         | 411        |
| 07:30 AM    | 5                       | 97   | 3     | 105        | 32                            | 164  | 5     | 201        | 30                      | 72   | 14    | 116        | 5                             | 64   | 31    | 100        | 522        |
| 07:45 AM    | 13                      | 102  | 4     | 119        | 38                            | 161  | 4     | 203        | 31                      | 101  | 23    | 155        | 3                             | 75   | 34    | 112        | 589        |
| Total       | 32                      | 311  | 15    | 358        | 113                           | 565  | 16    | 694        | 95                      | 276  | 49    | 420        | 14                            | 231  | 100   | 345        | 1817       |
| 08:00 AM    | 9                       | 58   | 10    | 77         | 38                            | 131  | 4     | 173        | 31                      | 108  | 16    | 155        | 3                             | 65   | 27    | 95         | 500        |
| 08:15 AM    | 6                       | 73   | 3     | 82         | 22                            | 141  | 5     | 168        | 27                      | 81   | 12    | 120        | 6                             | 63   | 23    | 92         | 462        |
| 08:30 AM    | 8                       | 68   | 3     | 79         | 27                            | 124  | 2     | 153        | 32                      | 62   | 16    | 110        | 6                             | 64   | 30    | 100        | 442        |
| 08:45 AM    | 15                      | 65   | 3     | 83         | 35                            | 129  | 8     | 172        | 22                      | 68   | 17    | 107        | 3                             | 96   | 24    | 123        | 485        |
| Total       | 38                      | 264  | 19    | 321        | 122                           | 525  | 19    | 666        | 112                     | 319  | 61    | 492        | 18                            | 288  | 104   | 410        | 1889       |
| Grand Total | 70                      | 575  | 34    | 679        | 235                           | 1090 | 35    | 1360       | 207                     | 595  | 110   | 912        | 32                            | 519  | 204   | 755        | 3706       |
| Apprch %    | 10.3                    | 84.7 | 5     |            | 17.3                          | 80.1 | 2.6   |            | 22.7                    | 65.2 | 12.1  |            | 4.2                           | 68.7 | 27    |            |            |
| Total %     | 1.9                     | 15.5 | 0.9   | 18.3       | 6.3                           | 29.4 | 0.9   | 36.7       | 5.6                     | 16.1 | 3     | 24.6       | 0.9                           | 14   | 5.5   | 20.4       |            |

|                                                            | Portola Road Southbound |            |           |            | Frank Sinatra Drive Westbound |            |          |            | Portola Road Northbound |            |           |            | Frank Sinatra Drive Eastbound |           |           |            |            |
|------------------------------------------------------------|-------------------------|------------|-----------|------------|-------------------------------|------------|----------|------------|-------------------------|------------|-----------|------------|-------------------------------|-----------|-----------|------------|------------|
| Start Time                                                 | Left                    | Thru       | Right     | App. Total | Left                          | Thru       | Right    | App. Total | Left                    | Thru       | Right     | App. Total | Left                          | Thru      | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                         |            |           |            |                               |            |          |            |                         |            |           |            |                               |           |           |            |            |
| Peak Hour for Entire Intersection Begins at 07:30 AM       |                         |            |           |            |                               |            |          |            |                         |            |           |            |                               |           |           |            |            |
| 07:30 AM                                                   | 5                       | 97         | 3         | 105        | 32                            | <b>164</b> | <b>5</b> | 201        | 30                      | 72         | 14        | 116        | 5                             | 64        | 31        | 100        | 522        |
| 07:45 AM                                                   | <b>13</b>               | <b>102</b> | 4         | <b>119</b> | <b>38</b>                     | 161        | 4        | <b>203</b> | <b>31</b>               | 101        | <b>23</b> | <b>155</b> | 3                             | <b>75</b> | <b>34</b> | <b>112</b> | <b>589</b> |
| 08:00 AM                                                   | 9                       | 58         | <b>10</b> | 77         | 38                            | 131        | 4        | 173        | 31                      | <b>108</b> | 16        | 155        | 3                             | 65        | 27        | 95         | 500        |
| 08:15 AM                                                   | 6                       | 73         | 3         | 82         | 22                            | 141        | 5        | 168        | 27                      | 81         | 12        | 120        | <b>6</b>                      | 63        | 23        | 92         | 462        |
| Total Volume                                               | 33                      | 330        | 20        | 383        | 130                           | 597        | 18       | 745        | 119                     | 362        | 65        | 546        | 17                            | 267       | 115       | 399        | 2073       |
| % App. Total                                               | 8.6                     | 86.2       | 5.2       |            | 17.4                          | 80.1       | 2.4      |            | 21.8                    | 66.3       | 11.9      |            | 4.3                           | 66.9      | 28.8      |            |            |
| PHF                                                        | .635                    | .809       | .500      | .805       | .855                          | .910       | .900     | .917       | .960                    | .838       | .707      | .881       | .708                          | .890      | .846      | .891       | .880       |

City of Palm Desert  
N/S: Portola Road  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 04\_PLD\_Port\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:30 AM  |            |           |            | 07:30 AM  |            |      |            | 07:30 AM  |            |           |            | 08:00 AM |           |           |            |
|--------------|-----------|------------|-----------|------------|-----------|------------|------|------------|-----------|------------|-----------|------------|----------|-----------|-----------|------------|
| +0 mins.     | 5         | 97         | 3         | 105        | 32        | <b>164</b> | 5    | 201        | 30        | 72         | 14        | 116        | 3        | 65        | 27        | 95         |
| +15 mins.    | <b>13</b> | <b>102</b> | 4         | <b>119</b> | <b>38</b> | 161        | 4    | <b>203</b> | <b>31</b> | 101        | <b>23</b> | <b>155</b> | <b>6</b> | 63        | 23        | 92         |
| +30 mins.    | 9         | 58         | <b>10</b> | 77         | 38        | 131        | 4    | 173        | 31        | <b>108</b> | 16        | 155        | 6        | 64        | <b>30</b> | 100        |
| +45 mins.    | 6         | 73         | 3         | 82         | 22        | 141        | 5    | 168        | 27        | 81         | 12        | 120        | 3        | <b>96</b> | 24        | <b>123</b> |
| Total Volume | 33        | 330        | 20        | 383        | 130       | 597        | 18   | 745        | 119       | 362        | 65        | 546        | 18       | 288       | 104       | 410        |
| % App. Total | 8.6       | 86.2       | 5.2       |            | 17.4      | 80.1       | 2.4  |            | 21.8      | 66.3       | 11.9      |            | 4.4      | 70.2      | 25.4      |            |
| PHF          | .635      | .809       | .500      | .805       | .855      | .910       | .900 | .917       | .960      | .838       | .707      | .881       | .750     | .750      | .867      | .833       |

City of Palm Desert  
N/S: Portola Road  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 04\_PLD\_Port\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

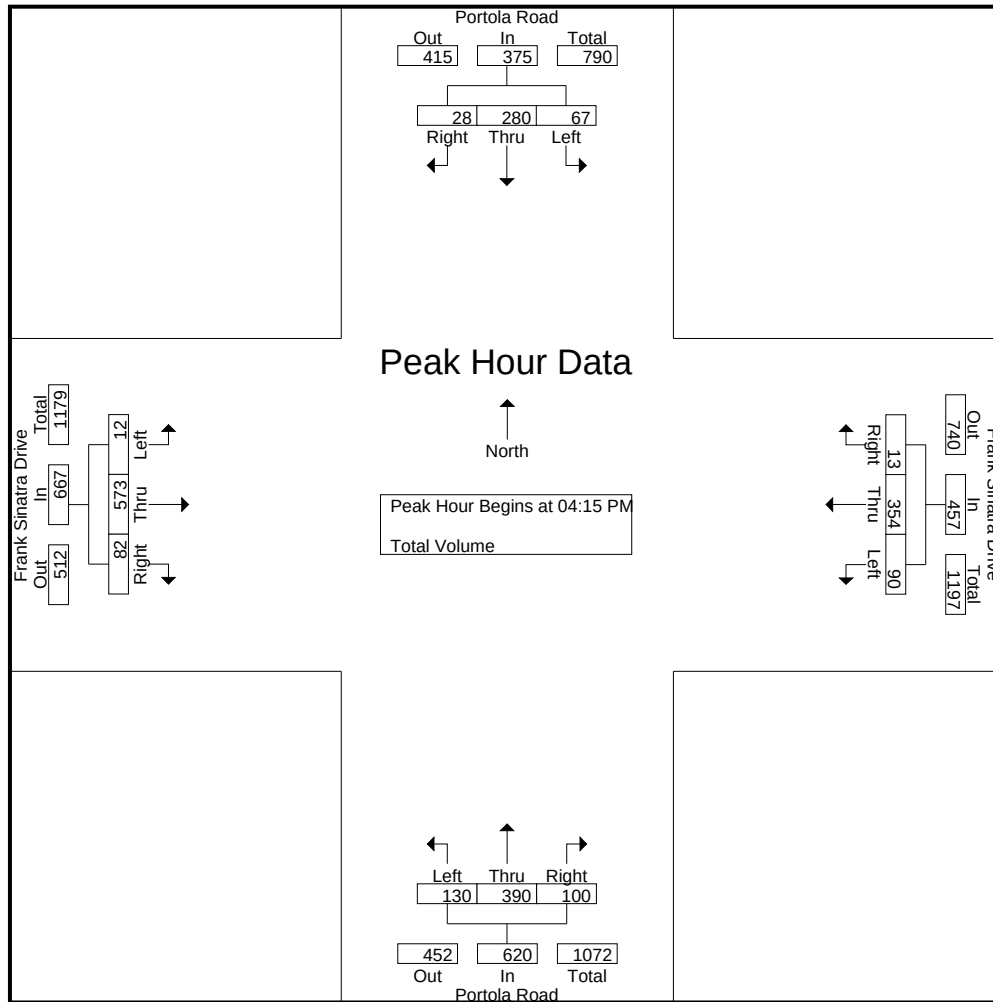
Groups Printed- Total Volume

|             | Portola Road Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Portola Road Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|-------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 04:00 PM    | 20                      | 69   | 9     | 98         | 21                            | 79   | 11    | 111        | 38                      | 116  | 29    | 183        | 2                             | 105  | 18    | 125        | 517        |
| 04:15 PM    | 30                      | 79   | 9     | 118        | 20                            | 90   | 5     | 115        | 29                      | 95   | 20    | 144        | 2                             | 160  | 25    | 187        | 564        |
| 04:30 PM    | 8                       | 61   | 7     | 76         | 16                            | 85   | 6     | 107        | 35                      | 101  | 29    | 165        | 4                             | 115  | 18    | 137        | 485        |
| 04:45 PM    | 14                      | 61   | 8     | 83         | 32                            | 82   | 1     | 115        | 36                      | 95   | 24    | 155        | 2                             | 131  | 23    | 156        | 509        |
| Total       | 72                      | 270  | 33    | 375        | 89                            | 336  | 23    | 448        | 138                     | 407  | 102   | 647        | 10                            | 511  | 84    | 605        | 2075       |
| 05:00 PM    | 15                      | 79   | 4     | 98         | 22                            | 97   | 1     | 120        | 30                      | 99   | 27    | 156        | 4                             | 167  | 16    | 187        | 561        |
| 05:15 PM    | 14                      | 60   | 5     | 79         | 27                            | 94   | 6     | 127        | 39                      | 89   | 32    | 160        | 3                             | 146  | 27    | 176        | 542        |
| 05:30 PM    | 14                      | 56   | 3     | 73         | 16                            | 85   | 3     | 104        | 35                      | 101  | 27    | 163        | 3                             | 94   | 18    | 115        | 455        |
| 05:45 PM    | 4                       | 59   | 0     | 63         | 18                            | 69   | 13    | 100        | 32                      | 79   | 20    | 131        | 6                             | 97   | 20    | 123        | 417        |
| Total       | 47                      | 254  | 12    | 313        | 83                            | 345  | 23    | 451        | 136                     | 368  | 106   | 610        | 16                            | 504  | 81    | 601        | 1975       |
| Grand Total | 119                     | 524  | 45    | 688        | 172                           | 681  | 46    | 899        | 274                     | 775  | 208   | 1257       | 26                            | 1015 | 165   | 1206       | 4050       |
| Apprch %    | 17.3                    | 76.2 | 6.5   |            | 19.1                          | 75.8 | 5.1   |            | 21.8                    | 61.7 | 16.5  |            | 2.2                           | 84.2 | 13.7  |            |            |
| Total %     | 2.9                     | 12.9 | 1.1   | 17         | 4.2                           | 16.8 | 1.1   | 22.2       | 6.8                     | 19.1 | 5.1   | 31         | 0.6                           | 25.1 | 4.1   | 29.8       |            |

|                                                            | Portola Road Southbound |           |          |            | Frank Sinatra Drive Westbound |           |          |            | Portola Road Northbound |            |           |            | Frank Sinatra Drive Eastbound |            |           |            |            |
|------------------------------------------------------------|-------------------------|-----------|----------|------------|-------------------------------|-----------|----------|------------|-------------------------|------------|-----------|------------|-------------------------------|------------|-----------|------------|------------|
| Start Time                                                 | Left                    | Thru      | Right    | App. Total | Left                          | Thru      | Right    | App. Total | Left                    | Thru       | Right     | App. Total | Left                          | Thru       | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                         |           |          |            |                               |           |          |            |                         |            |           |            |                               |            |           |            |            |
| Peak Hour for Entire Intersection Begins at 04:15 PM       |                         |           |          |            |                               |           |          |            |                         |            |           |            |                               |            |           |            |            |
| 04:15 PM                                                   | <b>30</b>               | <b>79</b> | <b>9</b> | <b>118</b> | 20                            | 90        | 5        | 115        | 29                      | 95         | 20        | 144        | 2                             | 160        | <b>25</b> | <b>187</b> | <b>564</b> |
| 04:30 PM                                                   | 8                       | 61        | 7        | 76         | 16                            | 85        | <b>6</b> | 107        | 35                      | <b>101</b> | <b>29</b> | <b>165</b> | <b>4</b>                      | 115        | 18        | 137        | 485        |
| 04:45 PM                                                   | 14                      | 61        | 8        | 83         | <b>32</b>                     | 82        | 1        | 115        | <b>36</b>               | 95         | 24        | 155        | 2                             | 131        | 23        | 156        | 509        |
| 05:00 PM                                                   | 15                      | 79        | 4        | 98         | 22                            | <b>97</b> | 1        | <b>120</b> | 30                      | 99         | 27        | 156        | 4                             | <b>167</b> | 16        | 187        | 561        |
| Total Volume                                               | 67                      | 280       | 28       | 375        | 90                            | 354       | 13       | 457        | 130                     | 390        | 100       | 620        | 12                            | 573        | 82        | 667        | 2119       |
| % App. Total                                               | 17.9                    | 74.7      | 7.5      |            | 19.7                          | 77.5      | 2.8      |            | 21                      | 62.9       | 16.1      |            | 1.8                           | 85.9       | 12.3      |            |            |
| PHF                                                        | .558                    | .886      | .778     | .794       | .703                          | .912      | .542     | .952       | .903                    | .965       | .862      | .939       | .750                          | .858       | .820      | .892       | .939       |

City of Palm Desert  
N/S: Portola Road  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 04\_PLD\_Port\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:00 PM |      |      |      | 04:30 PM |      |      |      | 04:00 PM |      |      |      | 04:15 PM |      |      |      |
|--------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|----------|------|------|------|
| +0 mins.     | 20       | 69   | 9    | 98   | 16       | 85   | 6    | 107  | 38       | 116  | 29   | 183  | 2        | 160  | 25   | 187  |
| +15 mins.    | 30       | 79   | 9    | 118  | 32       | 82   | 1    | 115  | 29       | 95   | 20   | 144  | 4        | 115  | 18   | 137  |
| +30 mins.    | 8        | 61   | 7    | 76   | 22       | 97   | 1    | 120  | 35       | 101  | 29   | 165  | 2        | 131  | 23   | 156  |
| +45 mins.    | 14       | 61   | 8    | 83   | 27       | 94   | 6    | 127  | 36       | 95   | 24   | 155  | 4        | 167  | 16   | 187  |
| Total Volume | 72       | 270  | 33   | 375  | 97       | 358  | 14   | 469  | 138      | 407  | 102  | 647  | 12       | 573  | 82   | 667  |
| % App. Total | 19.2     | 72   | 8.8  |      | 20.7     | 76.3 | 3    |      | 21.3     | 62.9 | 15.8 |      | 1.8      | 85.9 | 12.3 |      |
| PHF          | .600     | .854 | .917 | .794 | .758     | .923 | .583 | .923 | .908     | .877 | .879 | .884 | .750     | .858 | .820 | .892 |

City of Palm Desert  
N/S: Cook Street  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 05\_PLD\_Cook\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

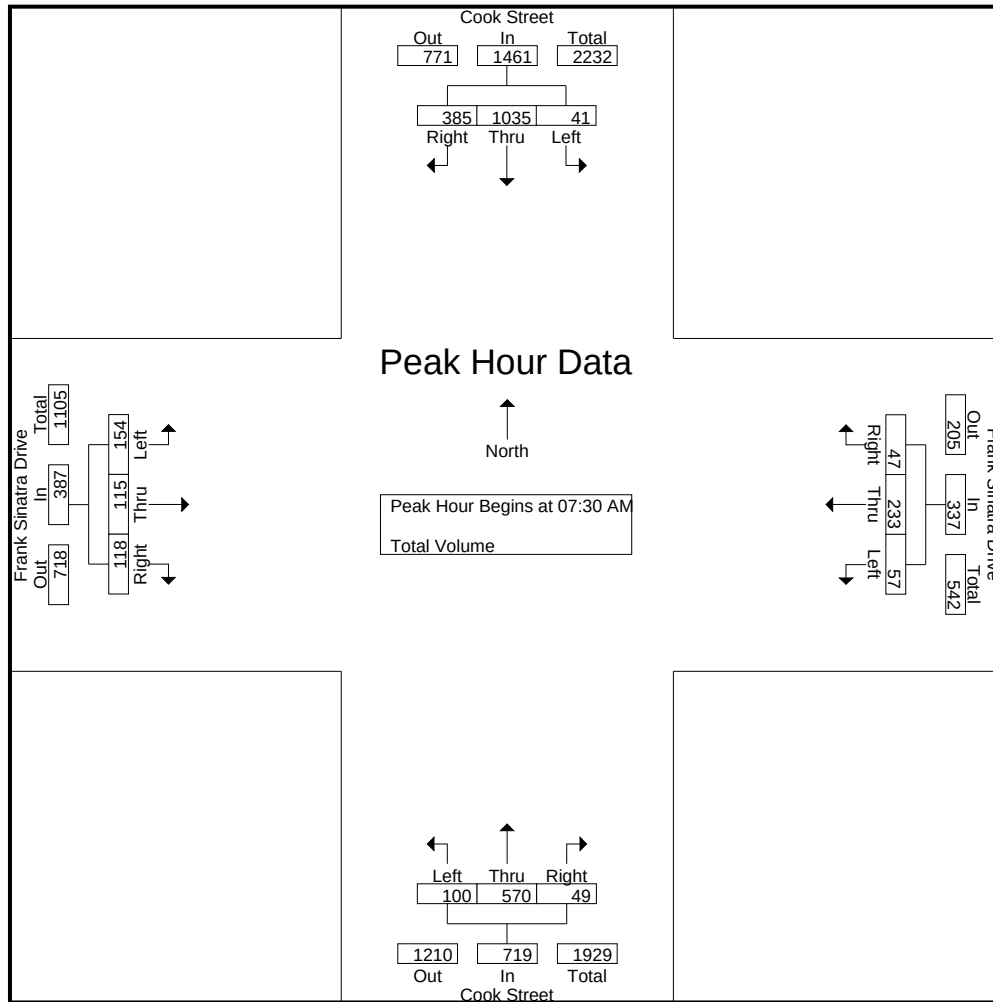
Groups Printed- Total Volume

|             | Cook Street Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Cook Street Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                   | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                   | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 5                      | 173  | 57    | 235        | 6                             | 41   | 10    | 57         | 18                     | 90   | 5     | 113        | 20                            | 20   | 14    | 54         | 459        |
| 07:15 AM    | 9                      | 206  | 92    | 307        | 10                            | 63   | 11    | 84         | 21                     | 104  | 3     | 128        | 28                            | 12   | 19    | 59         | 578        |
| 07:30 AM    | 9                      | 256  | 103   | 368        | 19                            | 59   | 7     | 85         | 24                     | 154  | 24    | 202        | 37                            | 29   | 36    | 102        | 757        |
| 07:45 AM    | 12                     | 288  | 123   | 423        | 17                            | 56   | 20    | 93         | 30                     | 132  | 9     | 171        | 45                            | 25   | 38    | 108        | 795        |
| Total       | 35                     | 923  | 375   | 1333       | 52                            | 219  | 48    | 319        | 93                     | 480  | 41    | 614        | 130                           | 86   | 107   | 323        | 2589       |
| 08:00 AM    | 9                      | 254  | 87    | 350        | 6                             | 66   | 14    | 86         | 21                     | 149  | 10    | 180        | 44                            | 37   | 22    | 103        | 719        |
| 08:15 AM    | 11                     | 237  | 72    | 320        | 15                            | 52   | 6     | 73         | 25                     | 135  | 6     | 166        | 28                            | 24   | 22    | 74         | 633        |
| 08:30 AM    | 8                      | 212  | 69    | 289        | 19                            | 57   | 13    | 89         | 26                     | 156  | 9     | 191        | 44                            | 32   | 21    | 97         | 666        |
| 08:45 AM    | 4                      | 253  | 71    | 328        | 8                             | 50   | 12    | 70         | 33                     | 162  | 8     | 203        | 42                            | 37   | 46    | 125        | 726        |
| Total       | 32                     | 956  | 299   | 1287       | 48                            | 225  | 45    | 318        | 105                    | 602  | 33    | 740        | 158                           | 130  | 111   | 399        | 2744       |
| Grand Total | 67                     | 1879 | 674   | 2620       | 100                           | 444  | 93    | 637        | 198                    | 1082 | 74    | 1354       | 288                           | 216  | 218   | 722        | 5333       |
| Apprch %    | 2.6                    | 71.7 | 25.7  |            | 15.7                          | 69.7 | 14.6  |            | 14.6                   | 79.9 | 5.5   |            | 39.9                          | 29.9 | 30.2  |            |            |
| Total %     | 1.3                    | 35.2 | 12.6  | 49.1       | 1.9                           | 8.3  | 1.7   | 11.9       | 3.7                    | 20.3 | 1.4   | 25.4       | 5.4                           | 4.1  | 4.1   | 13.5       |            |

|                                                            | Cook Street Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Cook Street Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|------------------------------------------------------------|------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time                                                 | Left                   | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                   | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                        |      |       |            |                               |      |       |            |                        |      |       |            |                               |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:30 AM       |                        |      |       |            |                               |      |       |            |                        |      |       |            |                               |      |       |            |            |
| 07:30 AM                                                   | 9                      | 256  | 103   | 368        | 19                            | 59   | 7     | 85         | 24                     | 154  | 24    | 202        | 37                            | 29   | 36    | 102        | 757        |
| 07:45 AM                                                   | 12                     | 288  | 123   | 423        | 17                            | 56   | 20    | 93         | 30                     | 132  | 9     | 171        | 45                            | 25   | 38    | 108        | 795        |
| 08:00 AM                                                   | 9                      | 254  | 87    | 350        | 6                             | 66   | 14    | 86         | 21                     | 149  | 10    | 180        | 44                            | 37   | 22    | 103        | 719        |
| 08:15 AM                                                   | 11                     | 237  | 72    | 320        | 15                            | 52   | 6     | 73         | 25                     | 135  | 6     | 166        | 28                            | 24   | 22    | 74         | 633        |
| Total Volume                                               | 41                     | 1035 | 385   | 1461       | 57                            | 233  | 47    | 337        | 100                    | 570  | 49    | 719        | 154                           | 115  | 118   | 387        | 2904       |
| % App. Total                                               | 2.8                    | 70.8 | 26.4  |            | 16.9                          | 69.1 | 13.9  |            | 13.9                   | 79.3 | 6.8   |            | 39.8                          | 29.7 | 30.5  |            |            |
| PHF                                                        | .854                   | .898 | .783  | .863       | .750                          | .883 | .588  | .906       | .833                   | .925 | .510  | .890       | .856                          | .777 | .776  | .896       | .913       |

City of Palm Desert  
N/S: Cook Street  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 05\_PLD\_Cook\_Frank AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:30 AM  |            |            |            | 07:15 AM  |           |           |           | 08:00 AM  |            |           |            | 08:00 AM  |           |           |            |
|--------------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|
| +0 mins.     | 9         | 256        | 103        | 368        | 10        | 63        | 11        | 84        | 21        | 149        | <b>10</b> | 180        | <b>44</b> | <b>37</b> | 22        | 103        |
| +15 mins.    | <b>12</b> | <b>288</b> | <b>123</b> | <b>423</b> | <b>19</b> | 59        | 7         | 85        | 25        | 135        | 6         | 166        | 28        | 24        | 22        | 74         |
| +30 mins.    | 9         | 254        | 87         | 350        | 17        | 56        | <b>20</b> | <b>93</b> | 26        | 156        | 9         | 191        | 44        | 32        | 21        | 97         |
| +45 mins.    | 11        | 237        | 72         | 320        | 6         | <b>66</b> | 14        | 86        | <b>33</b> | <b>162</b> | 8         | <b>203</b> | 42        | 37        | <b>46</b> | <b>125</b> |
| Total Volume | 41        | 1035       | 385        | 1461       | 52        | 244       | 52        | 348       | 105       | 602        | 33        | 740        | 158       | 130       | 111       | 399        |
| % App. Total | 2.8       | 70.8       | 26.4       |            | 14.9      | 70.1      | 14.9      |           | 14.2      | 81.4       | 4.5       |            | 39.6      | 32.6      | 27.8      |            |
| PHF          | .854      | .898       | .783       | .863       | .684      | .924      | .650      | .935      | .795      | .929       | .825      | .911       | .898      | .878      | .603      | .798       |

City of Palm Desert  
N/S: Cook Street  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 05\_PLD\_Cook\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

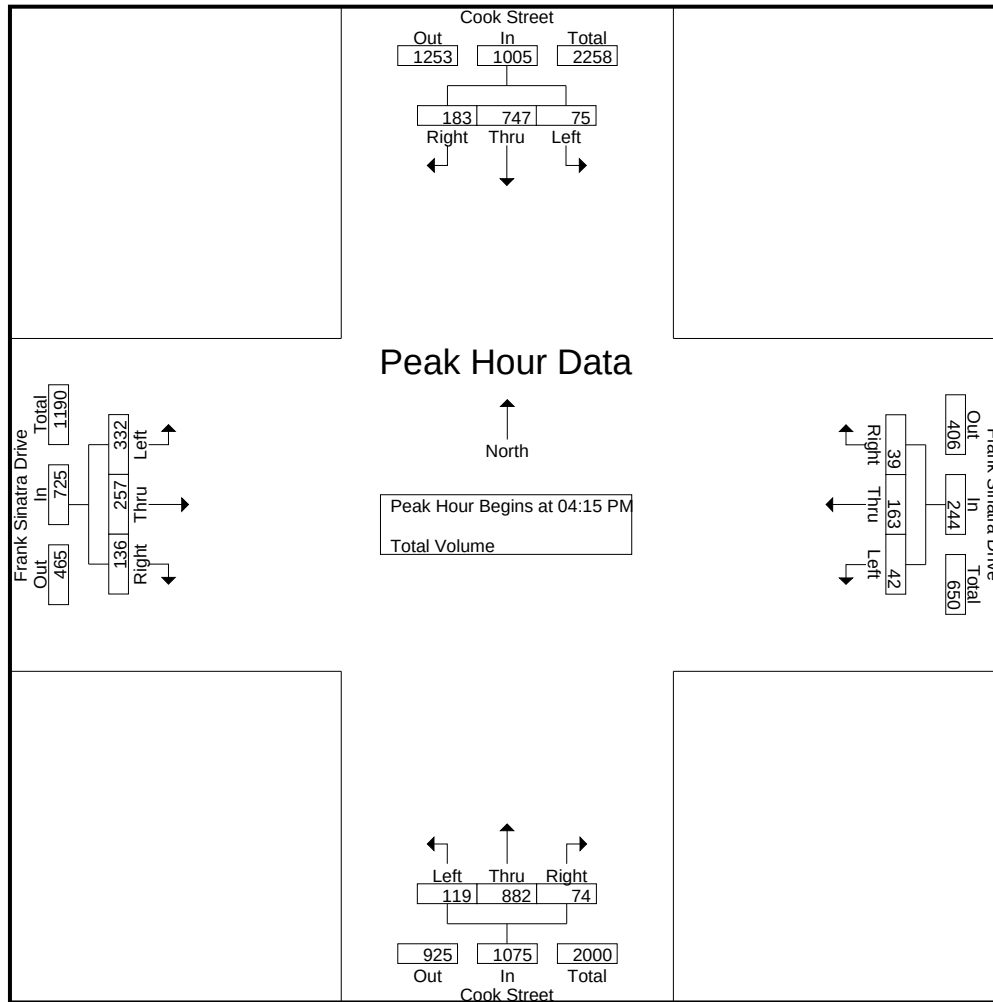
Groups Printed- Total Volume

|             | Cook Street Southbound |      |       |            | Frank Sinatra Drive Westbound |      |       |            | Cook Street Northbound |      |       |            | Frank Sinatra Drive Eastbound |      |       |            |            |
|-------------|------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------------------|------|-------|------------|-------------------------------|------|-------|------------|------------|
| Start Time  | Left                   | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Left                   | Thru | Right | App. Total | Left                          | Thru | Right | App. Total | Int. Total |
| 04:00 PM    | 9                      | 174  | 41    | 224        | 9                             | 31   | 12    | 52         | 33                     | 242  | 20    | 295        | 53                            | 61   | 48    | 162        | 733        |
| 04:15 PM    | 19                     | 190  | 45    | 254        | 14                            | 41   | 8     | 63         | 33                     | 220  | 22    | 275        | 85                            | 71   | 38    | 194        | 786        |
| 04:30 PM    | 20                     | 189  | 41    | 250        | 14                            | 35   | 14    | 63         | 31                     | 229  | 19    | 279        | 78                            | 50   | 29    | 157        | 749        |
| 04:45 PM    | 21                     | 167  | 54    | 242        | 5                             | 38   | 6     | 49         | 22                     | 175  | 16    | 213        | 86                            | 58   | 33    | 177        | 681        |
| Total       | 69                     | 720  | 181   | 970        | 42                            | 145  | 40    | 227        | 119                    | 866  | 77    | 1062       | 302                           | 240  | 148   | 690        | 2949       |
| 05:00 PM    | 15                     | 201  | 43    | 259        | 9                             | 49   | 11    | 69         | 33                     | 258  | 17    | 308        | 83                            | 78   | 36    | 197        | 833        |
| 05:15 PM    | 18                     | 181  | 55    | 254        | 12                            | 31   | 8     | 51         | 44                     | 214  | 19    | 277        | 91                            | 75   | 34    | 200        | 782        |
| 05:30 PM    | 11                     | 179  | 47    | 237        | 15                            | 40   | 4     | 59         | 30                     | 226  | 16    | 272        | 51                            | 44   | 29    | 124        | 692        |
| 05:45 PM    | 15                     | 158  | 32    | 205        | 7                             | 27   | 15    | 49         | 47                     | 181  | 13    | 241        | 58                            | 56   | 14    | 128        | 623        |
| Total       | 59                     | 719  | 177   | 955        | 43                            | 147  | 38    | 228        | 154                    | 879  | 65    | 1098       | 283                           | 253  | 113   | 649        | 2930       |
| Grand Total | 128                    | 1439 | 358   | 1925       | 85                            | 292  | 78    | 455        | 273                    | 1745 | 142   | 2160       | 585                           | 493  | 261   | 1339       | 5879       |
| Apprch %    | 6.6                    | 74.8 | 18.6  |            | 18.7                          | 64.2 | 17.1  |            | 12.6                   | 80.8 | 6.6   |            | 43.7                          | 36.8 | 19.5  |            |            |
| Total %     | 2.2                    | 24.5 | 6.1   | 32.7       | 1.4                           | 5    | 1.3   | 7.7        | 4.6                    | 29.7 | 2.4   | 36.7       | 10                            | 8.4  | 4.4   | 22.8       |            |

|                                                            | Cook Street Southbound |            |           |            | Frank Sinatra Drive Westbound |           |           |            | Cook Street Northbound |            |           |            | Frank Sinatra Drive Eastbound |           |           |            |            |
|------------------------------------------------------------|------------------------|------------|-----------|------------|-------------------------------|-----------|-----------|------------|------------------------|------------|-----------|------------|-------------------------------|-----------|-----------|------------|------------|
| Start Time                                                 | Left                   | Thru       | Right     | App. Total | Left                          | Thru      | Right     | App. Total | Left                   | Thru       | Right     | App. Total | Left                          | Thru      | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                        |            |           |            |                               |           |           |            |                        |            |           |            |                               |           |           |            |            |
| Peak Hour for Entire Intersection Begins at 04:15 PM       |                        |            |           |            |                               |           |           |            |                        |            |           |            |                               |           |           |            |            |
| 04:15 PM                                                   | 19                     | 190        | 45        | 254        | <b>14</b>                     | 41        | 8         | 63         | <b>33</b>              | 220        | <b>22</b> | 275        | 85                            | 71        | <b>38</b> | 194        | 786        |
| 04:30 PM                                                   | 20                     | 189        | 41        | 250        | 14                            | 35        | <b>14</b> | 63         | 31                     | 229        | 19        | 279        | 78                            | 50        | 29        | 157        | 749        |
| 04:45 PM                                                   | <b>21</b>              | 167        | <b>54</b> | 242        | 5                             | 38        | 6         | 49         | 22                     | 175        | 16        | 213        | <b>86</b>                     | 58        | 33        | 177        | 681        |
| 05:00 PM                                                   | 15                     | <b>201</b> | 43        | <b>259</b> | 9                             | <b>49</b> | 11        | <b>69</b>  | 33                     | <b>258</b> | 17        | <b>308</b> | 83                            | <b>78</b> | 36        | <b>197</b> | <b>833</b> |
| Total Volume                                               | 75                     | 747        | 183       | 1005       | 42                            | 163       | 39        | 244        | 119                    | 882        | 74        | 1075       | 332                           | 257       | 136       | 725        | 3049       |
| % App. Total                                               | 7.5                    | 74.3       | 18.2      |            | 17.2                          | 66.8      | 16        |            | 11.1                   | 82         | 6.9       |            | 45.8                          | 35.4      | 18.8      |            |            |
| PHF                                                        | .893                   | .929       | .847      | .970       | .750                          | .832      | .696      | .884       | .902                   | .855       | .841      | .873       | .965                          | .824      | .895      | .920       | .915       |

City of Palm Desert  
N/S: Cook Street  
E/W: Frank Sinatra Drive  
Weather: Clear

File Name : 05\_PLD\_Cook\_Frank PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:15 PM  |            |           |            | 04:15 PM  |           |           |           | 05:00 PM  |            |           |            | 04:30 PM  |           |           |            |
|--------------|-----------|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|
| +0 mins.     | 19        | 190        | 45        | 254        | <b>14</b> | 41        | 8         | 63        | 33        | <b>258</b> | 17        | <b>308</b> | 78        | 50        | 29        | 157        |
| +15 mins.    | 20        | 189        | 41        | 250        | 14        | 35        | <b>14</b> | 63        | 44        | 214        | <b>19</b> | 277        | 86        | 58        | 33        | 177        |
| +30 mins.    | <b>21</b> | 167        | <b>54</b> | 242        | 5         | 38        | 6         | 49        | 30        | 226        | 16        | 272        | 83        | <b>78</b> | <b>36</b> | 197        |
| +45 mins.    | 15        | <b>201</b> | 43        | <b>259</b> | 9         | <b>49</b> | 11        | <b>69</b> | <b>47</b> | 181        | 13        | 241        | <b>91</b> | 75        | 34        | <b>200</b> |
| Total Volume | 75        | 747        | 183       | 1005       | 42        | 163       | 39        | 244       | 154       | 879        | 65        | 1098       | 338       | 261       | 132       | 731        |
| % App. Total | 7.5       | 74.3       | 18.2      |            | 17.2      | 66.8      | 16        |           | 14        | 80.1       | 5.9       |            | 46.2      | 35.7      | 18.1      |            |
| PHF          | .893      | .929       | .847      | .970       | .750      | .832      | .696      | .884      | .819      | .852       | .855      | .891       | .929      | .837      | .917      | .914       |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle North  
Weather: Clear

File Name : 06\_PLD\_Port\_Ret N AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

Groups Printed- Total Volume

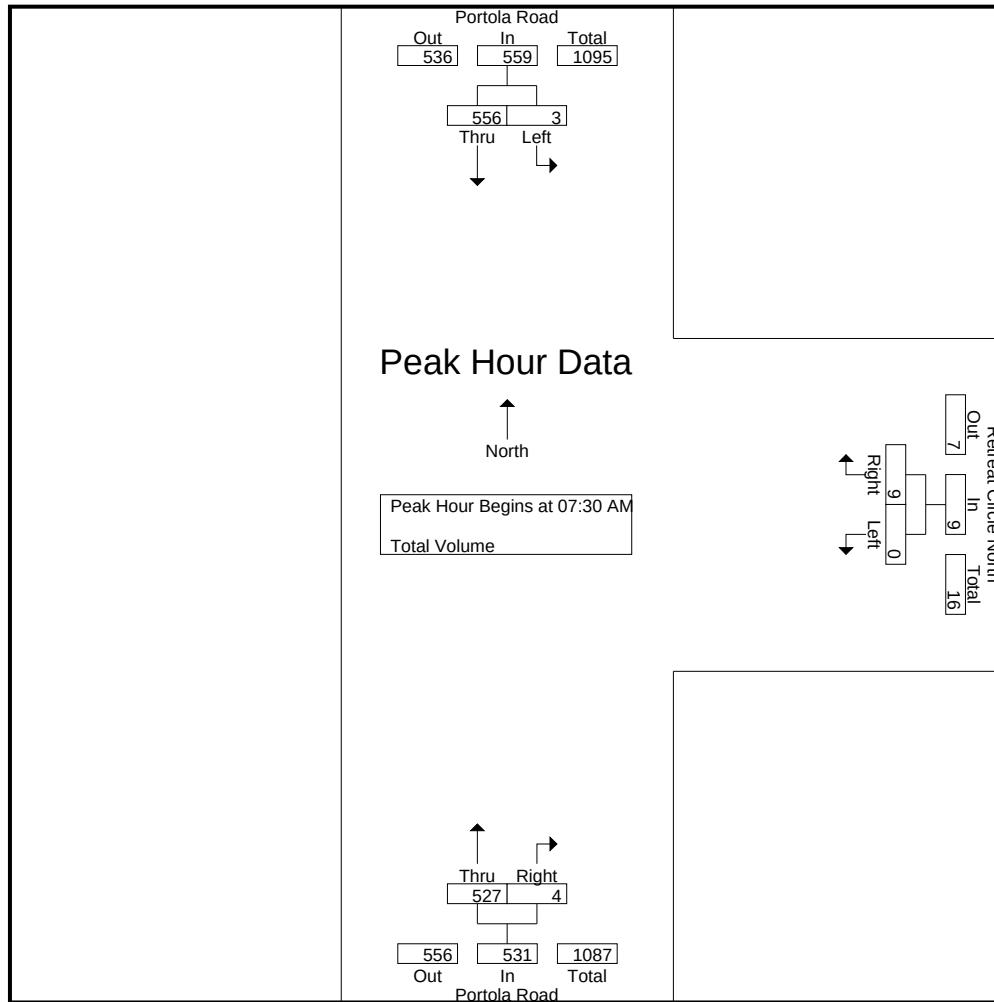
| Start Time  | Portola Road Southbound |      |            | Retreat Circle North Westbound |       |            | Portola Road Northbound |       |            | Int. Total |
|-------------|-------------------------|------|------------|--------------------------------|-------|------------|-------------------------|-------|------------|------------|
|             | Left                    | Thru | App. Total | Left                           | Right | App. Total | Thru                    | Right | App. Total |            |
| 07:00 AM    | 0                       | 72   | 72         | 0                              | 2     | 2          | 67                      | 1     | 68         | 142        |
| 07:15 AM    | 1                       | 123  | 124        | 0                              | 4     | 4          | 75                      | 0     | 75         | 203        |
| 07:30 AM    | 1                       | 155  | 156        | 0                              | 1     | 1          | 119                     | 1     | 120        | 277        |
| 07:45 AM    | 1                       | 166  | 167        | 0                              | 3     | 3          | 155                     | 1     | 156        | 326        |
| Total       | 3                       | 516  | 519        | 0                              | 10    | 10         | 416                     | 3     | 419        | 948        |
| 08:00 AM    | 0                       | 121  | 121        | 0                              | 2     | 2          | 143                     | 1     | 144        | 267        |
| 08:15 AM    | 1                       | 114  | 115        | 0                              | 3     | 3          | 110                     | 1     | 111        | 229        |
| 08:30 AM    | 1                       | 129  | 130        | 0                              | 4     | 4          | 110                     | 1     | 111        | 245        |
| 08:45 AM    | 0                       | 117  | 117        | 0                              | 2     | 2          | 116                     | 1     | 117        | 236        |
| Total       | 2                       | 481  | 483        | 0                              | 11    | 11         | 479                     | 4     | 483        | 977        |
| Grand Total | 5                       | 997  | 1002       | 0                              | 21    | 21         | 895                     | 7     | 902        | 1925       |
| Apprch %    | 0.5                     | 99.5 |            | 0                              | 100   |            | 99.2                    | 0.8   |            |            |
| Total %     | 0.3                     | 51.8 | 52.1       | 0                              | 1.1   | 1.1        | 46.5                    | 0.4   | 46.9       |            |

| Start Time   | Portola Road Southbound |            |            | Retreat Circle North Westbound |          |            | Portola Road Northbound |       |            | Int. Total |
|--------------|-------------------------|------------|------------|--------------------------------|----------|------------|-------------------------|-------|------------|------------|
|              | Left                    | Thru       | App. Total | Left                           | Right    | App. Total | Thru                    | Right | App. Total |            |
| 07:30 AM     | 1                       | 155        | 156        | 0                              | 1        | 1          | 119                     | 1     | 120        | 277        |
| 07:45 AM     | 1                       | <b>166</b> | <b>167</b> | 0                              | <b>3</b> | <b>3</b>   | <b>155</b>              | 1     | <b>156</b> | <b>326</b> |
| 08:00 AM     | 0                       | 121        | 121        | 0                              | 2        | 2          | 143                     | 1     | 144        | 267        |
| 08:15 AM     | 1                       | 114        | 115        | 0                              | 3        | 3          | 110                     | 1     | 111        | 229        |
| Total Volume | 3                       | 556        | 559        | 0                              | 9        | 9          | 527                     | 4     | 531        | 1099       |
| % App. Total | 0.5                     | 99.5       |            | 0                              | 100      |            | 99.2                    | 0.8   |            |            |
| PHF          | .750                    | .837       | .837       | .000                           | .750     | .750       | .850                    | 1.00  | .851       | .843       |

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Entire Intersection Begins at 07:30 AM

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle North  
Weather: Clear

File Name : 06\_PLD\_Port\_Ret N AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:15 AM |      |      | 07:45 AM |      |      | 07:30 AM |       |      |
|--------------|----------|------|------|----------|------|------|----------|-------|------|
| +0 mins.     | 1        | 123  | 124  | 0        | 3    | 3    | 119      | 1     | 120  |
| +15 mins.    | 1        | 155  | 156  | 0        | 2    | 2    | 155      | 1     | 156  |
| +30 mins.    | 1        | 166  | 167  | 0        | 3    | 3    | 143      | 1     | 144  |
| +45 mins.    | 0        | 121  | 121  | 0        | 4    | 4    | 110      | 1     | 111  |
| Total Volume | 3        | 565  | 568  | 0        | 12   | 12   | 527      | 4     | 531  |
| % App. Total | 0.5      | 99.5 |      | 0        | 100  |      | 99.2     | 0.8   |      |
| PHF          | .750     | .851 | .850 | .000     | .750 | .750 | .850     | 1.000 | .851 |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle North  
Weather: Clear

File Name : 06\_PLD\_Port\_Ret N PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

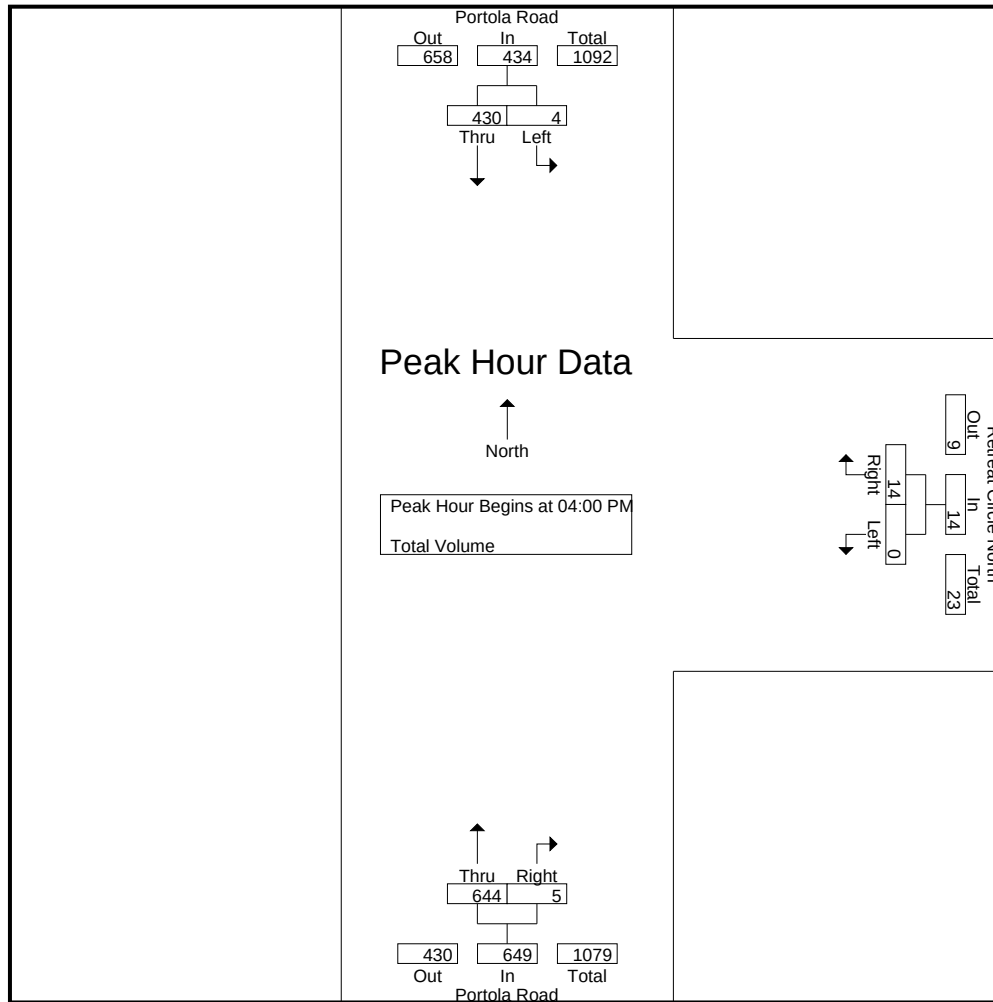
Groups Printed- Total Volume

|             | Portola Road Southbound |      |            | Retreat Circle North Westbound |       |            | Portola Road Northbound |       |            |            |
|-------------|-------------------------|------|------------|--------------------------------|-------|------------|-------------------------|-------|------------|------------|
| Start Time  | Left                    | Thru | App. Total | Left                           | Right | App. Total | Thru                    | Right | App. Total | Int. Total |
| 04:00 PM    | 1                       | 103  | 104        | 0                              | 1     | 1          | 188                     | 2     | 190        | 295        |
| 04:15 PM    | 1                       | 125  | 126        | 0                              | 4     | 4          | 137                     | 1     | 138        | 268        |
| 04:30 PM    | 1                       | 89   | 90         | 0                              | 4     | 4          | 175                     | 1     | 176        | 270        |
| 04:45 PM    | 1                       | 113  | 114        | 0                              | 5     | 5          | 144                     | 1     | 145        | 264        |
| Total       | 4                       | 430  | 434        | 0                              | 14    | 14         | 644                     | 5     | 649        | 1097       |
| 05:00 PM    | 4                       | 115  | 119        | 1                              | 2     | 3          | 165                     | 1     | 166        | 288        |
| 05:15 PM    | 2                       | 109  | 111        | 0                              | 3     | 3          | 146                     | 1     | 147        | 261        |
| 05:30 PM    | 3                       | 93   | 96         | 0                              | 8     | 8          | 161                     | 3     | 164        | 268        |
| 05:45 PM    | 2                       | 89   | 91         | 0                              | 2     | 2          | 123                     | 3     | 126        | 219        |
| Total       | 11                      | 406  | 417        | 1                              | 15    | 16         | 595                     | 8     | 603        | 1036       |
| Grand Total | 15                      | 836  | 851        | 1                              | 29    | 30         | 1239                    | 13    | 1252       | 2133       |
| Apprch %    | 1.8                     | 98.2 |            | 3.3                            | 96.7  |            | 99                      | 1     |            |            |
| Total %     | 0.7                     | 39.2 | 39.9       | 0                              | 1.4   | 1.4        | 58.1                    | 0.6   | 58.7       |            |

|                                                            | Portola Road Southbound |            |            | Retreat Circle North Westbound |          |            | Portola Road Northbound |          |            |            |
|------------------------------------------------------------|-------------------------|------------|------------|--------------------------------|----------|------------|-------------------------|----------|------------|------------|
| Start Time                                                 | Left                    | Thru       | App. Total | Left                           | Right    | App. Total | Thru                    | Right    | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                         |            |            |                                |          |            |                         |          |            |            |
| Peak Hour for Entire Intersection Begins at 04:00 PM       |                         |            |            |                                |          |            |                         |          |            |            |
| 04:00 PM                                                   | 1                       | 103        | 104        | 0                              | 1        | 1          | <b>188</b>              | <b>2</b> | <b>190</b> | <b>295</b> |
| 04:15 PM                                                   | 1                       | <b>125</b> | <b>126</b> | 0                              | 4        | 4          | 137                     | 1        | 138        | 268        |
| 04:30 PM                                                   | 1                       | 89         | 90         | 0                              | 4        | 4          | 175                     | 1        | 176        | 270        |
| 04:45 PM                                                   | 1                       | 113        | 114        | 0                              | <b>5</b> | <b>5</b>   | 144                     | 1        | 145        | 264        |
| Total Volume                                               | 4                       | 430        | 434        | 0                              | 14       | 14         | 644                     | 5        | 649        | 1097       |
| % App. Total                                               | 0.9                     | 99.1       |            | 0                              | 100      |            | 99.2                    | 0.8      |            |            |
| PHF                                                        | 1.00                    | .860       | .861       | .000                           | .700     | .700       | .856                    | .625     | .854       | .930       |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle North  
Weather: Clear

File Name : 06\_PLD\_Port\_Ret N PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:15 PM |      |      | 04:45 PM |      |      | 04:00 PM |      |      |
|--------------|----------|------|------|----------|------|------|----------|------|------|
| +0 mins.     | 1        | 125  | 126  | 0        | 5    | 5    | 188      | 2    | 190  |
| +15 mins.    | 1        | 89   | 90   | 1        | 2    | 3    | 137      | 1    | 138  |
| +30 mins.    | 1        | 113  | 114  | 0        | 3    | 3    | 175      | 1    | 176  |
| +45 mins.    | 4        | 115  | 119  | 0        | 8    | 8    | 144      | 1    | 145  |
| Total Volume | 7        | 442  | 449  | 1        | 18   | 19   | 644      | 5    | 649  |
| % App. Total | 1.6      | 98.4 |      | 5.3      | 94.7 |      | 99.2     | 0.8  |      |
| PHF          | .438     | .884 | .891 | .250     | .563 | .594 | .856     | .625 | .854 |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle South  
Weather: Clear

File Name : 07\_PLD\_Port\_Ret S AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

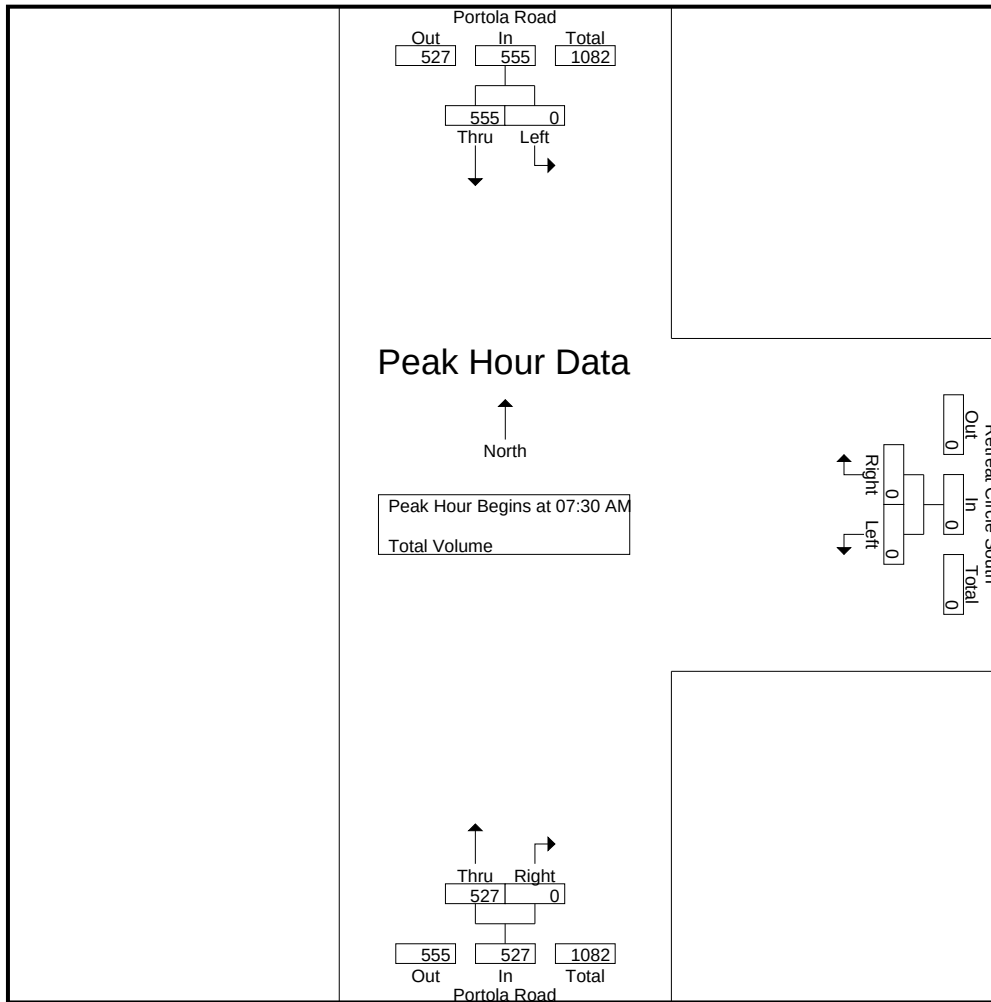
Groups Printed- Total Volume

| Start Time  | Portola Road Southbound |      |            | Retreat Circle South Westbound |       |            | Portola Road Northbound |       |            | Int. Total |
|-------------|-------------------------|------|------------|--------------------------------|-------|------------|-------------------------|-------|------------|------------|
|             | Left                    | Thru | App. Total | Left                           | Right | App. Total | Thru                    | Right | App. Total |            |
| 07:00 AM    | 0                       | 71   | 71         | 0                              | 0     | 0          | 69                      | 0     | 69         | 140        |
| 07:15 AM    | 0                       | 125  | 125        | 0                              | 0     | 0          | 77                      | 0     | 77         | 202        |
| 07:30 AM    | 0                       | 155  | 155        | 0                              | 0     | 0          | 118                     | 0     | 118        | 273        |
| 07:45 AM    | 0                       | 163  | 163        | 0                              | 0     | 0          | 153                     | 0     | 153        | 316        |
| Total       | 0                       | 514  | 514        | 0                              | 0     | 0          | 417                     | 0     | 417        | 931        |
| 08:00 AM    | 0                       | 122  | 122        | 0                              | 0     | 0          | 144                     | 0     | 144        | 266        |
| 08:15 AM    | 0                       | 115  | 115        | 0                              | 0     | 0          | 112                     | 0     | 112        | 227        |
| 08:30 AM    | 0                       | 127  | 127        | 0                              | 0     | 0          | 113                     | 0     | 113        | 240        |
| 08:45 AM    | 0                       | 118  | 118        | 0                              | 0     | 0          | 115                     | 0     | 115        | 233        |
| Total       | 0                       | 482  | 482        | 0                              | 0     | 0          | 484                     | 0     | 484        | 966        |
| Grand Total | 0                       | 996  | 996        | 0                              | 0     | 0          | 901                     | 0     | 901        | 1897       |
| Apprch %    | 0                       | 100  |            | 0                              | 0     |            | 100                     | 0     |            |            |
| Total %     | 0                       | 52.5 | 52.5       | 0                              | 0     | 0          | 47.5                    | 0     | 47.5       |            |

|                                                            | Portola Road<br>Southbound |            |            | Retreat Circle South<br>Westbound |       |            | Portola Road<br>Northbound |       |            |            |
|------------------------------------------------------------|----------------------------|------------|------------|-----------------------------------|-------|------------|----------------------------|-------|------------|------------|
| Start Time                                                 | Left                       | Thru       | App. Total | Left                              | Right | App. Total | Thru                       | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                            |            |            |                                   |       |            |                            |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:30 AM       |                            |            |            |                                   |       |            |                            |       |            |            |
| 07:30 AM                                                   | 0                          | 155        | 155        | 0                                 | 0     | 0          | 118                        | 0     | 118        | 273        |
| 07:45 AM                                                   | 0                          | <b>163</b> | <b>163</b> | 0                                 | 0     | 0          | <b>153</b>                 | 0     | <b>153</b> | <b>316</b> |
| 08:00 AM                                                   | 0                          | 122        | 122        | 0                                 | 0     | 0          | 144                        | 0     | 144        | 266        |
| 08:15 AM                                                   | 0                          | 115        | 115        | 0                                 | 0     | 0          | 112                        | 0     | 112        | 227        |
| Total Volume                                               | 0                          | 555        | 555        | 0                                 | 0     | 0          | 527                        | 0     | 527        | 1082       |
| % App. Total                                               | 0                          | 100        |            | 0                                 | 0     |            | 100                        | 0     |            |            |
| PHF                                                        | .000                       | .851       | .851       | .000                              | .000  | .000       | .861                       | .000  | .861       | .856       |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle South  
Weather: Clear

File Name : 07\_PLD\_Port\_Ret S AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:15 AM |            |            | 07:00 AM |      |      | 07:30 AM   |      |            |
|--------------|----------|------------|------------|----------|------|------|------------|------|------------|
| +0 mins.     | 0        | 125        | 125        | 0        | 0    | 0    | 118        | 0    | 118        |
| +15 mins.    | 0        | 155        | 155        | 0        | 0    | 0    | <b>153</b> | 0    | <b>153</b> |
| +30 mins.    | 0        | <b>163</b> | <b>163</b> | 0        | 0    | 0    | 144        | 0    | 144        |
| +45 mins.    | 0        | 122        | 122        | 0        | 0    | 0    | 112        | 0    | 112        |
| Total Volume | 0        | 565        | 565        | 0        | 0    | 0    | 527        | 0    | 527        |
| % App. Total | 0        | 100        |            | 0        | 0    |      | 100        | 0    |            |
| PHF          | .000     | .867       | .867       | .000     | .000 | .000 | .861       | .000 | .861       |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle South  
Weather: Clear

File Name : 07\_PLD\_Port\_Ret S PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

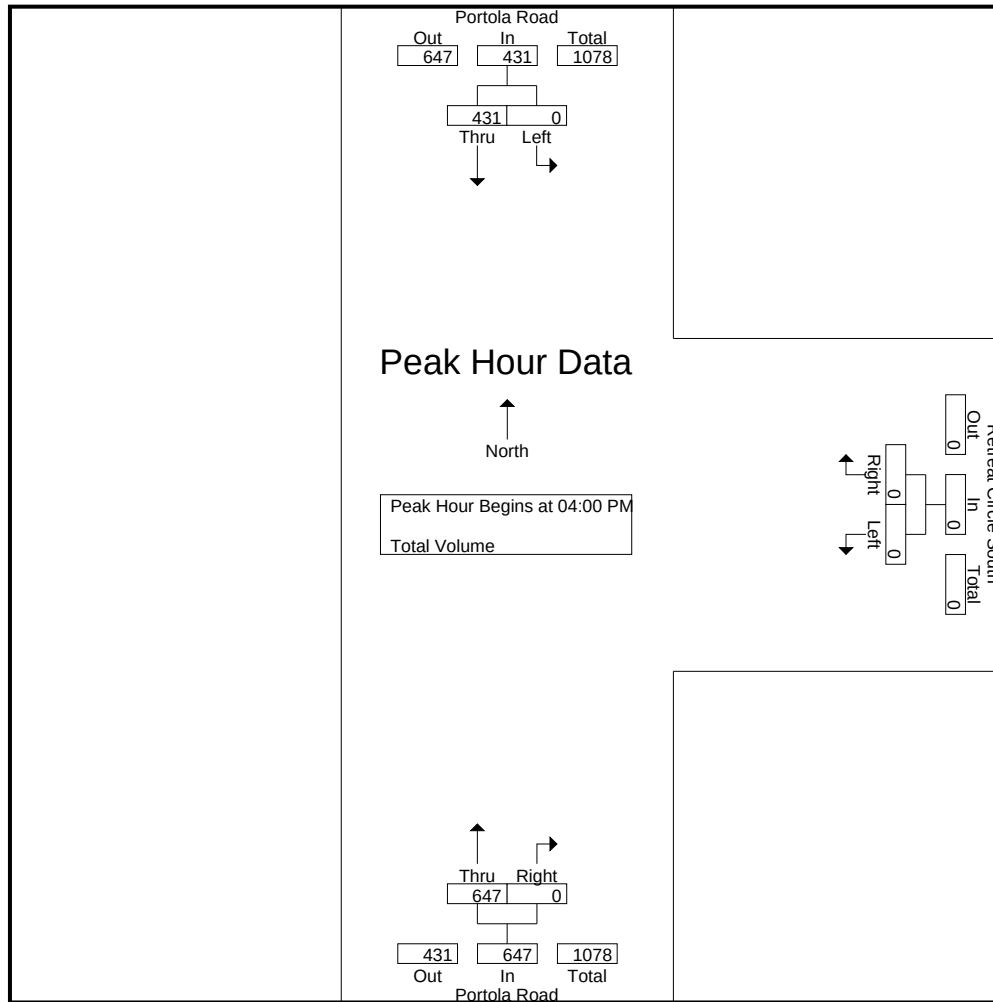
Groups Printed- Total Volume

| Start Time  | Portola Road Southbound |      |            | Retreat Circle South Westbound |       |            | Portola Road Northbound |       |            | Int. Total |
|-------------|-------------------------|------|------------|--------------------------------|-------|------------|-------------------------|-------|------------|------------|
|             | Left                    | Thru | App. Total | Left                           | Right | App. Total | Thru                    | Right | App. Total |            |
| 04:00 PM    | 0                       | 105  | 105        | 0                              | 0     | 0          | 187                     | 0     | 187        | 292        |
| 04:15 PM    | 0                       | 121  | 121        | 0                              | 0     | 0          | 139                     | 0     | 139        | 260        |
| 04:30 PM    | 0                       | 92   | 92         | 0                              | 0     | 0          | 172                     | 0     | 172        | 264        |
| 04:45 PM    | 0                       | 113  | 113        | 0                              | 0     | 0          | 149                     | 0     | 149        | 262        |
| Total       | 0                       | 431  | 431        | 0                              | 0     | 0          | 647                     | 0     | 647        | 1078       |
| 05:00 PM    | 0                       | 115  | 115        | 0                              | 0     | 0          | 163                     | 0     | 163        | 278        |
| 05:15 PM    | 0                       | 111  | 111        | 0                              | 0     | 0          | 147                     | 0     | 147        | 258        |
| 05:30 PM    | 0                       | 91   | 91         | 0                              | 0     | 0          | 165                     | 0     | 165        | 256        |
| 05:45 PM    | 0                       | 87   | 87         | 0                              | 0     | 0          | 128                     | 0     | 128        | 215        |
| Total       | 0                       | 404  | 404        | 0                              | 0     | 0          | 603                     | 0     | 603        | 1007       |
| Grand Total | 0                       | 835  | 835        | 0                              | 0     | 0          | 1250                    | 0     | 1250       | 2085       |
| Apprch %    | 0                       | 100  |            | 0                              | 0     |            | 100                     | 0     |            |            |
| Total %     | 0                       | 40   |            | 0                              | 0     |            | 60                      | 0     |            |            |

|                                                            | Portola Road<br>Southbound |      |            | Retreat Circle South<br>Westbound |       |            | Portola Road<br>Northbound |       |            |            |
|------------------------------------------------------------|----------------------------|------|------------|-----------------------------------|-------|------------|----------------------------|-------|------------|------------|
| Start Time                                                 | Left                       | Thru | App. Total | Left                              | Right | App. Total | Thru                       | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                            |      |            |                                   |       |            |                            |       |            |            |
| Peak Hour for Entire Intersection Begins at 04:00 PM       |                            |      |            |                                   |       |            |                            |       |            |            |
| 04:00 PM                                                   | 0                          | 105  | 105        | 0                                 | 0     | 0          | 187                        | 0     | 187        | 292        |
| 04:15 PM                                                   | 0                          | 121  | 121        | 0                                 | 0     | 0          | 139                        | 0     | 139        | 260        |
| 04:30 PM                                                   | 0                          | 92   | 92         | 0                                 | 0     | 0          | 172                        | 0     | 172        | 264        |
| 04:45 PM                                                   | 0                          | 113  | 113        | 0                                 | 0     | 0          | 149                        | 0     | 149        | 262        |
| Total Volume                                               | 0                          | 431  | 431        | 0                                 | 0     | 0          | 647                        | 0     | 647        | 1078       |
| % App. Total                                               | 0                          | 100  |            | 0                                 | 0     |            | 100                        | 0     |            |            |
| PHF                                                        | .000                       | .890 | .890       | .000                              | .000  | .000       | .865                       | .000  | .865       | .923       |

City of Palm Desert  
N/S: Portola Road  
E/W: Retreat Circle South  
Weather: Clear

File Name : 07\_PLD\_Port\_Ret S PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:15 PM |            |            | 04:00 PM |      |      | 04:00 PM   |      |            |
|--------------|----------|------------|------------|----------|------|------|------------|------|------------|
| +0 mins.     | 0        | <b>121</b> | <b>121</b> | 0        | 0    | 0    | <b>187</b> | 0    | <b>187</b> |
| +15 mins.    | 0        | 92         | 92         | 0        | 0    | 0    | 139        | 0    | 139        |
| +30 mins.    | 0        | 113        | 113        | 0        | 0    | 0    | 172        | 0    | 172        |
| +45 mins.    | 0        | 115        | 115        | 0        | 0    | 0    | 149        | 0    | 149        |
| Total Volume | 0        | 441        | 441        | 0        | 0    | 0    | 647        | 0    | 647        |
| % App. Total | 0        | 100        |            | 0        | 0    |      | 100        | 0    |            |
| PHF          | .000     | .911       | .911       | .000     | .000 | .000 | .865       | .000 | .865       |

City of Palm Desert  
N/S: Portola Road  
E/W: Willow Ridge  
Weather: Clear

File Name : 08\_PLD\_Port\_Willow AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

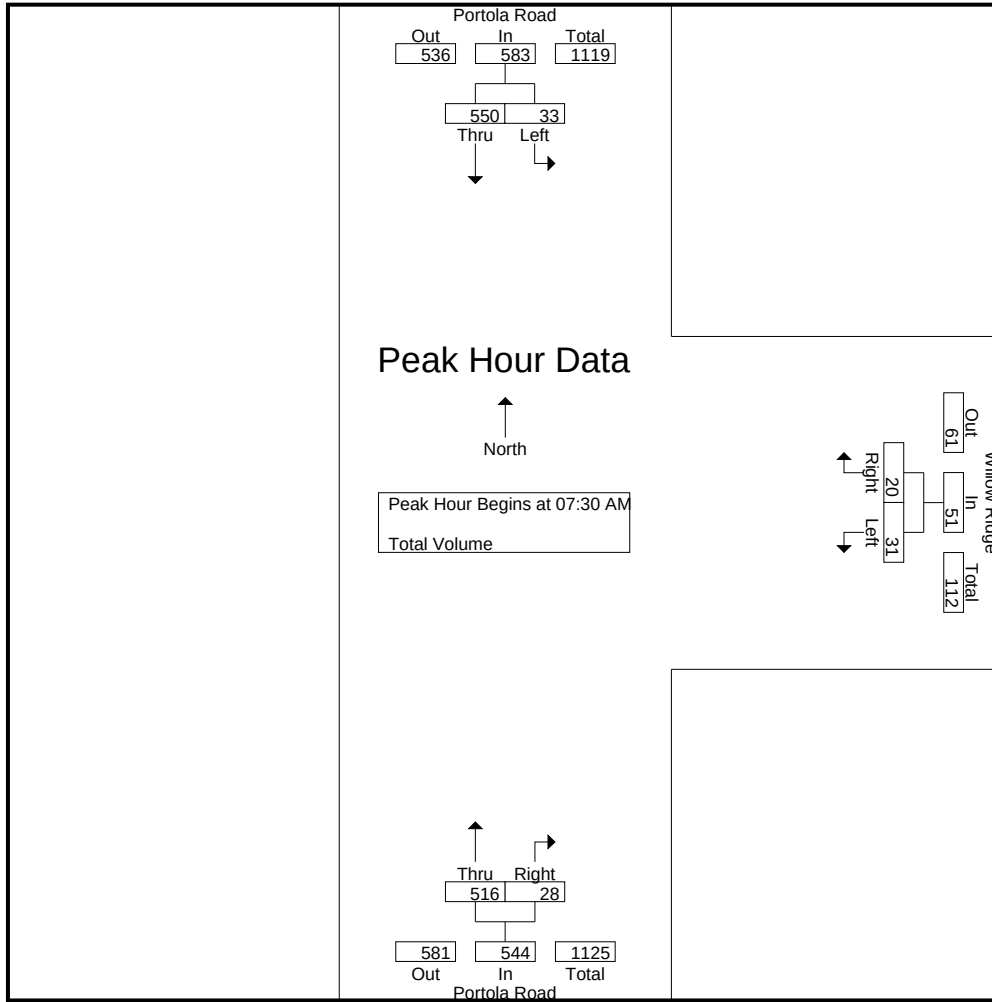
Groups Printed- Total Volume

|             | Portola Road Southbound |      |            | Willow Ridge Westbound |       |            | Portola Road Northbound |       |            |            |
|-------------|-------------------------|------|------------|------------------------|-------|------------|-------------------------|-------|------------|------------|
| Start Time  | Left                    | Thru | App. Total | Left                   | Right | App. Total | Thru                    | Right | App. Total | Int. Total |
| 07:00 AM    | 4                       | 72   | 76         | 4                      | 4     | 8          | 69                      | 5     | 74         | 158        |
| 07:15 AM    | 10                      | 108  | 118        | 7                      | 4     | 11         | 72                      | 9     | 81         | 210        |
| 07:30 AM    | 9                       | 150  | 159        | 13                     | 8     | 21         | 120                     | 9     | 129        | 309        |
| 07:45 AM    | 9                       | 170  | 179        | 3                      | 6     | 9          | 145                     | 9     | 154        | 342        |
| Total       | 32                      | 500  | 532        | 27                     | 22    | 49         | 406                     | 32    | 438        | 1019       |
| 08:00 AM    | 6                       | 125  | 131        | 7                      | 3     | 10         | 144                     | 5     | 149        | 290        |
| 08:15 AM    | 9                       | 105  | 114        | 8                      | 3     | 11         | 107                     | 5     | 112        | 237        |
| 08:30 AM    | 10                      | 115  | 125        | 7                      | 7     | 14         | 107                     | 4     | 111        | 250        |
| 08:45 AM    | 6                       | 123  | 129        | 11                     | 8     | 19         | 109                     | 6     | 115        | 263        |
| Total       | 31                      | 468  | 499        | 33                     | 21    | 54         | 467                     | 20    | 487        | 1040       |
| Grand Total | 63                      | 968  | 1031       | 60                     | 43    | 103        | 873                     | 52    | 925        | 2059       |
| Apprch %    | 6.1                     | 93.9 |            | 58.3                   | 41.7  |            | 94.4                    | 5.6   |            |            |
| Total %     | 3.1                     | 47   | 50.1       | 2.9                    | 2.1   | 5          | 42.4                    | 2.5   | 44.9       |            |

|                                                            | Portola Road Southbound |      |            | Willow Ridge Westbound |       |            | Portola Road Northbound |       |            |            |
|------------------------------------------------------------|-------------------------|------|------------|------------------------|-------|------------|-------------------------|-------|------------|------------|
| Start Time                                                 | Left                    | Thru | App. Total | Left                   | Right | App. Total | Thru                    | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                         |      |            |                        |       |            |                         |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:30 AM       |                         |      |            |                        |       |            |                         |       |            |            |
| 07:30 AM                                                   | 9                       | 150  | 159        | 13                     | 8     | 21         | 120                     | 9     | 129        | 309        |
| 07:45 AM                                                   | 9                       | 170  | 179        | 3                      | 6     | 9          | 145                     | 9     | 154        | 342        |
| 08:00 AM                                                   | 6                       | 125  | 131        | 7                      | 3     | 10         | 144                     | 5     | 149        | 290        |
| 08:15 AM                                                   | 9                       | 105  | 114        | 8                      | 3     | 11         | 107                     | 5     | 112        | 237        |
| Total Volume                                               | 33                      | 550  | 583        | 31                     | 20    | 51         | 516                     | 28    | 544        | 1178       |
| % App. Total                                               | 5.7                     | 94.3 |            | 60.8                   | 39.2  |            | 94.9                    | 5.1   |            |            |
| PHF                                                        | .917                    | .809 | .814       | .596                   | .625  | .607       | .890                    | .778  | .883       | .861       |

City of Palm Desert  
N/S: Portola Road  
E/W: Willow Ridge  
Weather: Clear

File Name : 08\_PLD\_Port\_Willow AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:15 AM  |            |            | 08:00 AM  |          |           | 07:30 AM   |          |            |
|--------------|-----------|------------|------------|-----------|----------|-----------|------------|----------|------------|
| +0 mins.     | <b>10</b> | 108        | 118        | 7         | 3        | 10        | 120        | <b>9</b> | 129        |
| +15 mins.    | 9         | 150        | 159        | 8         | 3        | 11        | <b>145</b> | 9        | <b>154</b> |
| +30 mins.    | 9         | <b>170</b> | <b>179</b> | 7         | 7        | 14        | 144        | 5        | 149        |
| +45 mins.    | 6         | 125        | 131        | <b>11</b> | <b>8</b> | <b>19</b> | 107        | 5        | 112        |
| Total Volume | 34        | 553        | 587        | 33        | 21       | 54        | 516        | 28       | 544        |
| % App. Total | 5.8       | 94.2       |            | 61.1      | 38.9     |           | 94.9       | 5.1      |            |
| PHF          | .850      | .813       | .820       | .750      | .656     | .711      | .890       | .778     | .883       |

City of Palm Desert  
N/S: Portola Road  
E/W: Willow Ridge  
Weather: Clear

File Name : 08\_PLD\_Port\_Willow PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

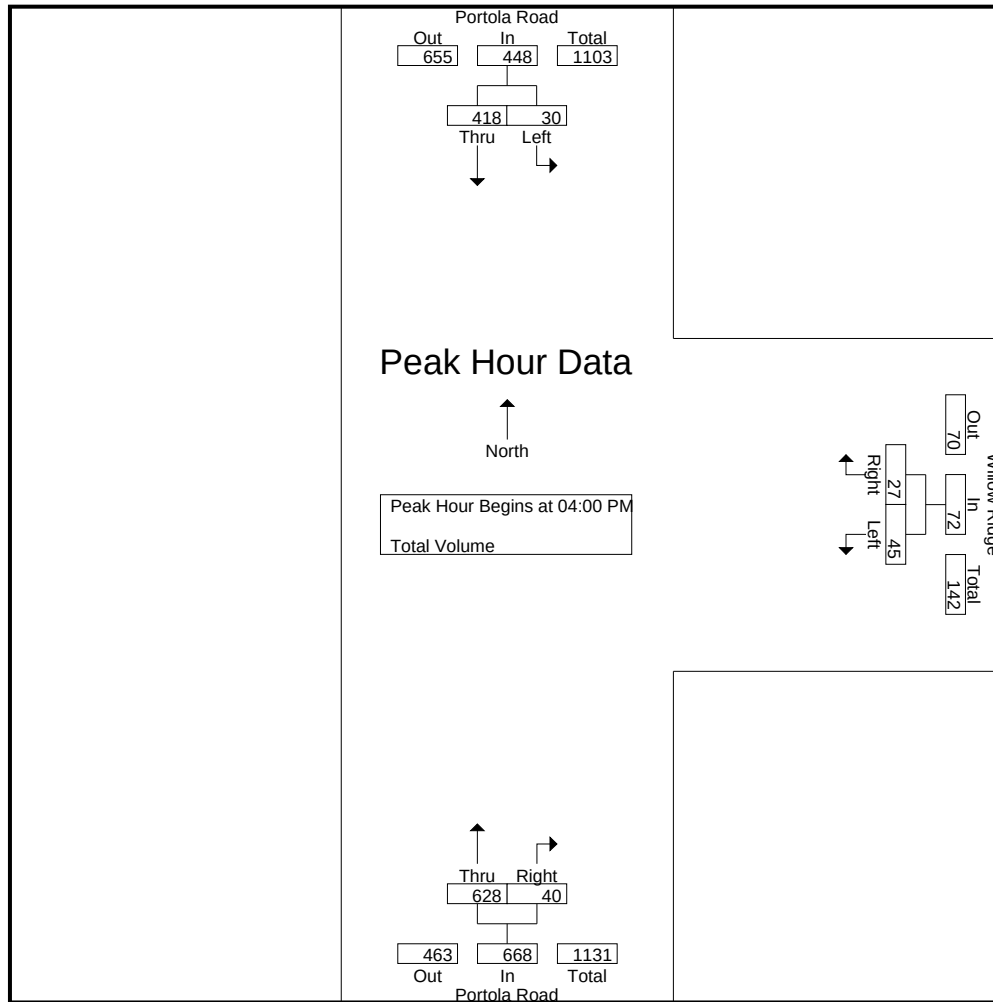
Groups Printed- Total Volume

|             | Portola Road Southbound |      |            | Willow Ridge Westbound |       |            | Portola Road Northbound |       |            |            |
|-------------|-------------------------|------|------------|------------------------|-------|------------|-------------------------|-------|------------|------------|
| Start Time  | Left                    | Thru | App. Total | Left                   | Right | App. Total | Thru                    | Right | App. Total | Int. Total |
| 04:00 PM    | 9                       | 100  | 109        | 13                     | 12    | 25         | 178                     | 9     | 187        | 321        |
| 04:15 PM    | 8                       | 116  | 124        | 10                     | 6     | 16         | 137                     | 8     | 145        | 285        |
| 04:30 PM    | 6                       | 94   | 100        | 6                      | 4     | 10         | 176                     | 11    | 187        | 297        |
| 04:45 PM    | 7                       | 108  | 115        | 16                     | 5     | 21         | 137                     | 12    | 149        | 285        |
| Total       | 30                      | 418  | 448        | 45                     | 27    | 72         | 628                     | 40    | 668        | 1188       |
| 05:00 PM    | 3                       | 117  | 120        | 10                     | 7     | 17         | 157                     | 13    | 170        | 307        |
| 05:15 PM    | 5                       | 112  | 117        | 16                     | 9     | 25         | 139                     | 9     | 148        | 290        |
| 05:30 PM    | 7                       | 79   | 86         | 9                      | 9     | 18         | 158                     | 18    | 176        | 280        |
| 05:45 PM    | 7                       | 88   | 95         | 13                     | 6     | 19         | 123                     | 4     | 127        | 241        |
| Total       | 22                      | 396  | 418        | 48                     | 31    | 79         | 577                     | 44    | 621        | 1118       |
| Grand Total | 52                      | 814  | 866        | 93                     | 58    | 151        | 1205                    | 84    | 1289       | 2306       |
| Apprch %    | 6                       | 94   |            | 61.6                   | 38.4  |            | 93.5                    | 6.5   |            |            |
| Total %     | 2.3                     | 35.3 | 37.6       | 4                      | 2.5   | 6.5        | 52.3                    | 3.6   | 55.9       |            |

|                                                            | Portola Road Southbound |      |            | Willow Ridge Westbound |       |            | Portola Road Northbound |       |            |            |
|------------------------------------------------------------|-------------------------|------|------------|------------------------|-------|------------|-------------------------|-------|------------|------------|
| Start Time                                                 | Left                    | Thru | App. Total | Left                   | Right | App. Total | Thru                    | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                         |      |            |                        |       |            |                         |       |            |            |
| Peak Hour for Entire Intersection Begins at 04:00 PM       |                         |      |            |                        |       |            |                         |       |            |            |
| 04:00 PM                                                   | 9                       | 100  | 109        | 13                     | 12    | 25         | 178                     | 9     | 187        | 321        |
| 04:15 PM                                                   | 8                       | 116  | 124        | 10                     | 6     | 16         | 137                     | 8     | 145        | 285        |
| 04:30 PM                                                   | 6                       | 94   | 100        | 6                      | 4     | 10         | 176                     | 11    | 187        | 297        |
| 04:45 PM                                                   | 7                       | 108  | 115        | 16                     | 5     | 21         | 137                     | 12    | 149        | 285        |
| Total Volume                                               | 30                      | 418  | 448        | 45                     | 27    | 72         | 628                     | 40    | 668        | 1188       |
| % App. Total                                               | 6.7                     | 93.3 |            | 62.5                   | 37.5  |            | 94                      | 6     |            |            |
| PHF                                                        | .833                    | .901 | .903       | .703                   | .563  | .720       | .882                    | .833  | .893       | .925       |

City of Palm Desert  
N/S: Portola Road  
E/W: Willow Ridge  
Weather: Clear

File Name : 08\_PLD\_Port\_Willow PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:15 PM |      |      | 04:45 PM |      |      | 04:00 PM |      |      |
|--------------|----------|------|------|----------|------|------|----------|------|------|
| +0 mins.     | 8        | 116  | 124  | 16       | 5    | 21   | 178      | 9    | 187  |
| +15 mins.    | 6        | 94   | 100  | 10       | 7    | 17   | 137      | 8    | 145  |
| +30 mins.    | 7        | 108  | 115  | 16       | 9    | 25   | 176      | 11   | 187  |
| +45 mins.    | 3        | 117  | 120  | 9        | 9    | 18   | 137      | 12   | 149  |
| Total Volume | 24       | 435  | 459  | 51       | 30   | 81   | 628      | 40   | 668  |
| % App. Total | 5.2      | 94.8 |      | 63       | 37   |      | 94       | 6    |      |
| PHF          | .750     | .929 | .925 | .797     | .833 | .810 | .882     | .833 | .893 |

City of Palm Desert  
N/S: Portola Road  
E/W: Country Club Drive  
Weather: Clear

File Name : 09\_PLD\_Port\_Country AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

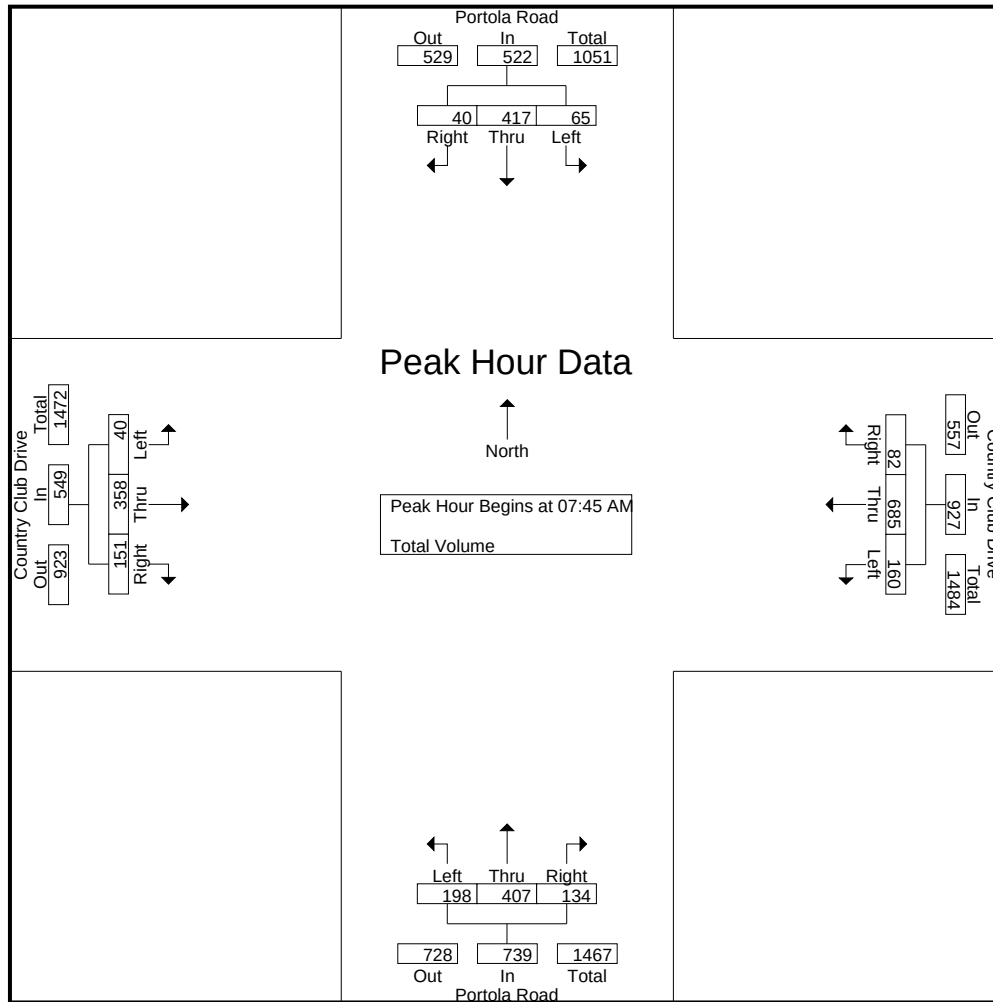
Groups Printed- Total Volume

|             | Portola Road Southbound |      |       |            | Country Club Drive Westbound |      |       |            | Portola Road Northbound |      |       |            | Country Club Drive Eastbound |      |       |            |            |
|-------------|-------------------------|------|-------|------------|------------------------------|------|-------|------------|-------------------------|------|-------|------------|------------------------------|------|-------|------------|------------|
| Start Time  | Left                    | Thru | Right | App. Total | Left                         | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                         | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 15                      | 47   | 8     | 70         | 22                           | 91   | 8     | 121        | 9                       | 53   | 19    | 81         | 2                            | 40   | 13    | 55         | 327        |
| 07:15 AM    | 17                      | 89   | 6     | 112        | 27                           | 109  | 12    | 148        | 25                      | 73   | 24    | 122        | 2                            | 77   | 34    | 113        | 495        |
| 07:30 AM    | 14                      | 122  | 6     | 142        | 40                           | 158  | 16    | 214        | 29                      | 102  | 25    | 156        | 5                            | 76   | 39    | 120        | 632        |
| 07:45 AM    | 19                      | 138  | 6     | 163        | 64                           | 190  | 25    | 279        | 63                      | 130  | 42    | 235        | 10                           | 89   | 34    | 133        | 810        |
| Total       | 65                      | 396  | 26    | 487        | 153                          | 548  | 61    | 762        | 126                     | 358  | 110   | 594        | 19                           | 282  | 120   | 421        | 2264       |
| 08:00 AM    | 18                      | 91   | 13    | 122        | 31                           | 177  | 18    | 226        | 38                      | 98   | 31    | 167        | 14                           | 91   | 31    | 136        | 651        |
| 08:15 AM    | 16                      | 85   | 9     | 110        | 33                           | 163  | 17    | 213        | 46                      | 97   | 28    | 171        | 8                            | 86   | 41    | 135        | 629        |
| 08:30 AM    | 12                      | 103  | 12    | 127        | 32                           | 155  | 22    | 209        | 51                      | 82   | 33    | 166        | 8                            | 92   | 45    | 145        | 647        |
| 08:45 AM    | 15                      | 98   | 10    | 123        | 38                           | 154  | 16    | 208        | 57                      | 87   | 33    | 177        | 8                            | 98   | 57    | 163        | 671        |
| Total       | 61                      | 377  | 44    | 482        | 134                          | 649  | 73    | 856        | 192                     | 364  | 125   | 681        | 38                           | 367  | 174   | 579        | 2598       |
| Grand Total | 126                     | 773  | 70    | 969        | 287                          | 1197 | 134   | 1618       | 318                     | 722  | 235   | 1275       | 57                           | 649  | 294   | 1000       | 4862       |
| Apprch %    | 13                      | 79.8 | 7.2   |            | 17.7                         | 74   | 8.3   |            | 24.9                    | 56.6 | 18.4  |            | 5.7                          | 64.9 | 29.4  |            |            |
| Total %     | 2.6                     | 15.9 | 1.4   | 19.9       | 5.9                          | 24.6 | 2.8   | 33.3       | 6.5                     | 14.8 | 4.8   | 26.2       | 1.2                          | 13.3 | 6     | 20.6       |            |

|                                                            | Portola Road Southbound |            |           |            | Country Club Drive Westbound |            |           |            | Portola Road Northbound |            |           |            | Country Club Drive Eastbound |           |           |            |            |
|------------------------------------------------------------|-------------------------|------------|-----------|------------|------------------------------|------------|-----------|------------|-------------------------|------------|-----------|------------|------------------------------|-----------|-----------|------------|------------|
| Start Time                                                 | Left                    | Thru       | Right     | App. Total | Left                         | Thru       | Right     | App. Total | Left                    | Thru       | Right     | App. Total | Left                         | Thru      | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                         |            |           |            |                              |            |           |            |                         |            |           |            |                              |           |           |            |            |
| Peak Hour for Entire Intersection Begins at 07:45 AM       |                         |            |           |            |                              |            |           |            |                         |            |           |            |                              |           |           |            |            |
| 07:45 AM                                                   | <b>19</b>               | <b>138</b> | 6         | <b>163</b> | <b>64</b>                    | <b>190</b> | <b>25</b> | <b>279</b> | <b>63</b>               | <b>130</b> | <b>42</b> | <b>235</b> | 10                           | 89        | 34        | 133        | <b>810</b> |
| 08:00 AM                                                   | 18                      | 91         | <b>13</b> | 122        | 31                           | 177        | 18        | 226        | 38                      | 98         | 31        | 167        | <b>14</b>                    | 91        | 31        | 136        | 651        |
| 08:15 AM                                                   | 16                      | 85         | 9         | 110        | 33                           | 163        | 17        | 213        | 46                      | 97         | 28        | 171        | 8                            | 86        | 41        | 135        | 629        |
| 08:30 AM                                                   | 12                      | 103        | 12        | 127        | 32                           | 155        | 22        | 209        | 51                      | 82         | 33        | 166        | 8                            | <b>92</b> | <b>45</b> | <b>145</b> | 647        |
| Total Volume                                               | 65                      | 417        | 40        | 522        | 160                          | 685        | 82        | 927        | 198                     | 407        | 134       | 739        | 40                           | 358       | 151       | 549        | 2737       |
| % App. Total                                               | 12.5                    | 79.9       | 7.7       |            | 17.3                         | 73.9       | 8.8       |            | 26.8                    | 55.1       | 18.1      |            | 7.3                          | 65.2      | 27.5      |            |            |
| PHF                                                        | .855                    | .755       | .769      | .801       | .625                         | .901       | .820      | .831       | .786                    | .783       | .798      | .786       | .714                         | .973      | .839      | .947       | .845       |

City of Palm Desert  
N/S: Portola Road  
E/W: Country Club Drive  
Weather: Clear

File Name : 09\_PLD\_Port\_Country AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:15 AM |      |      |      | 07:30 AM |      |      |      | 07:45 AM |      |      |      | 08:00 AM |      |      |      |
|--------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|----------|------|------|------|
| +0 mins.     | 17       | 89   | 6    | 112  | 40       | 158  | 16   | 214  | 63       | 130  | 42   | 235  | 14       | 91   | 31   | 136  |
| +15 mins.    | 14       | 122  | 6    | 142  | 64       | 190  | 25   | 279  | 38       | 98   | 31   | 167  | 8        | 86   | 41   | 135  |
| +30 mins.    | 19       | 138  | 6    | 163  | 31       | 177  | 18   | 226  | 46       | 97   | 28   | 171  | 8        | 92   | 45   | 145  |
| +45 mins.    | 18       | 91   | 13   | 122  | 33       | 163  | 17   | 213  | 51       | 82   | 33   | 166  | 8        | 98   | 57   | 163  |
| Total Volume | 68       | 440  | 31   | 539  | 168      | 688  | 76   | 932  | 198      | 407  | 134  | 739  | 38       | 367  | 174  | 579  |
| % App. Total | 12.6     | 81.6 | 5.8  |      | 18       | 73.8 | 8.2  |      | 26.8     | 55.1 | 18.1 |      | 6.6      | 63.4 | 30.1 |      |
| PHF          | .895     | .797 | .596 | .827 | .656     | .905 | .760 | .835 | .786     | .783 | .798 | .786 | .679     | .936 | .763 | .888 |

City of Palm Desert  
N/S: Portola Road  
E/W: Country Club Drive  
Weather: Clear

File Name : 09\_PLD\_Port\_Country PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

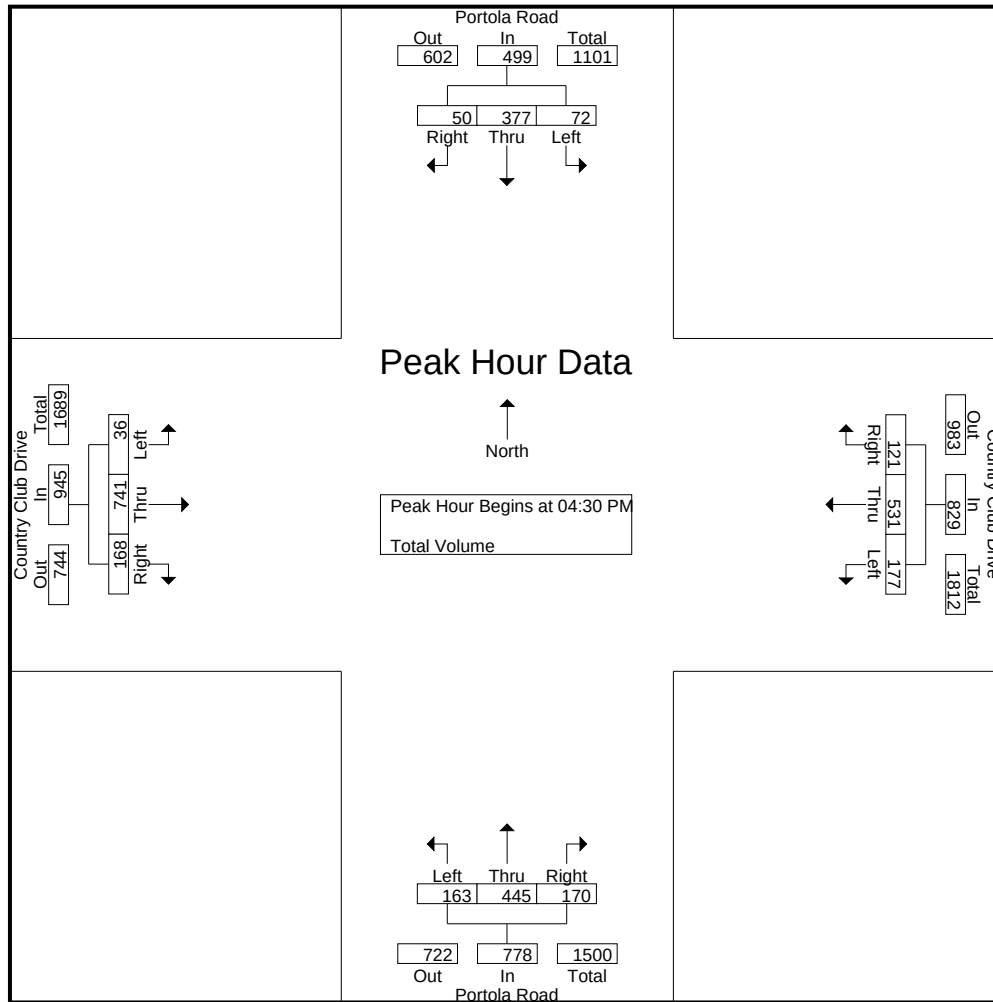
Groups Printed- Total Volume

|             | Portola Road Southbound |      |       |            | Country Club Drive Westbound |      |       |            | Portola Road Northbound |      |       |            | Country Club Drive Eastbound |      |       |            |            |
|-------------|-------------------------|------|-------|------------|------------------------------|------|-------|------------|-------------------------|------|-------|------------|------------------------------|------|-------|------------|------------|
| Start Time  | Left                    | Thru | Right | App. Total | Left                         | Thru | Right | App. Total | Left                    | Thru | Right | App. Total | Left                         | Thru | Right | App. Total | Int. Total |
| 04:00 PM    | 24                      | 87   | 10    | 121        | 25                           | 125  | 24    | 174        | 51                      | 125  | 33    | 209        | 10                           | 177  | 41    | 228        | 732        |
| 04:15 PM    | 15                      | 92   | 19    | 126        | 55                           | 126  | 22    | 203        | 31                      | 101  | 41    | 173        | 7                            | 205  | 40    | 252        | 754        |
| 04:30 PM    | 12                      | 79   | 8     | 99         | 46                           | 121  | 37    | 204        | 45                      | 122  | 48    | 215        | 7                            | 190  | 45    | 242        | 760        |
| 04:45 PM    | 18                      | 95   | 13    | 126        | 45                           | 122  | 29    | 196        | 36                      | 89   | 42    | 167        | 14                           | 189  | 44    | 247        | 736        |
| Total       | 69                      | 353  | 50    | 472        | 171                          | 494  | 112   | 777        | 163                     | 437  | 164   | 764        | 38                           | 761  | 170   | 969        | 2982       |
| 05:00 PM    | 23                      | 92   | 14    | 129        | 25                           | 146  | 31    | 202        | 44                      | 122  | 46    | 212        | 5                            | 192  | 44    | 241        | 784        |
| 05:15 PM    | 19                      | 111  | 15    | 145        | 61                           | 142  | 24    | 227        | 38                      | 112  | 34    | 184        | 10                           | 170  | 35    | 215        | 771        |
| 05:30 PM    | 11                      | 71   | 9     | 91         | 40                           | 129  | 17    | 186        | 37                      | 130  | 25    | 192        | 12                           | 173  | 37    | 222        | 691        |
| 05:45 PM    | 14                      | 80   | 6     | 100        | 46                           | 104  | 15    | 165        | 31                      | 92   | 20    | 143        | 9                            | 118  | 21    | 148        | 556        |
| Total       | 67                      | 354  | 44    | 465        | 172                          | 521  | 87    | 780        | 150                     | 456  | 125   | 731        | 36                           | 653  | 137   | 826        | 2802       |
| Grand Total | 136                     | 707  | 94    | 937        | 343                          | 1015 | 199   | 1557       | 313                     | 893  | 289   | 1495       | 74                           | 1414 | 307   | 1795       | 5784       |
| Apprch %    | 14.5                    | 75.5 | 10    |            | 22                           | 65.2 | 12.8  |            | 20.9                    | 59.7 | 19.3  |            | 4.1                          | 78.8 | 17.1  |            |            |
| Total %     | 2.4                     | 12.2 | 1.6   | 16.2       | 5.9                          | 17.5 | 3.4   | 26.9       | 5.4                     | 15.4 | 5     | 25.8       | 1.3                          | 24.4 | 5.3   | 31         |            |

|                                                            | Portola Road Southbound |            |           |            | Country Club Drive Westbound |            |           |            | Portola Road Northbound |            |           |            | Country Club Drive Eastbound |            |           |            |            |
|------------------------------------------------------------|-------------------------|------------|-----------|------------|------------------------------|------------|-----------|------------|-------------------------|------------|-----------|------------|------------------------------|------------|-----------|------------|------------|
| Start Time                                                 | Left                    | Thru       | Right     | App. Total | Left                         | Thru       | Right     | App. Total | Left                    | Thru       | Right     | App. Total | Left                         | Thru       | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                         |            |           |            |                              |            |           |            |                         |            |           |            |                              |            |           |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                         |            |           |            |                              |            |           |            |                         |            |           |            |                              |            |           |            |            |
| 04:30 PM                                                   | 12                      | 79         | 8         | 99         | 46                           | 121        | <b>37</b> | 204        | <b>45</b>               | <b>122</b> | <b>48</b> | <b>215</b> | 7                            | 190        | <b>45</b> | 242        | 760        |
| 04:45 PM                                                   | 18                      | 95         | 13        | 126        | 45                           | 122        | 29        | 196        | 36                      | 89         | 42        | 167        | <b>14</b>                    | 189        | 44        | <b>247</b> | 736        |
| 05:00 PM                                                   | <b>23</b>               | 92         | 14        | 129        | 25                           | <b>146</b> | 31        | 202        | 44                      | 122        | 46        | 212        | 5                            | <b>192</b> | 44        | 241        | <b>784</b> |
| 05:15 PM                                                   | 19                      | <b>111</b> | <b>15</b> | <b>145</b> | <b>61</b>                    | 142        | 24        | <b>227</b> | 38                      | 112        | 34        | 184        | 10                           | 170        | 35        | 215        | 771        |
| Total Volume                                               | 72                      | 377        | 50        | 499        | 177                          | 531        | 121       | 829        | 163                     | 445        | 170       | 778        | 36                           | 741        | 168       | 945        | 3051       |
| % App. Total                                               | 14.4                    | 75.6       | 10        |            | 21.4                         | 64.1       | 14.6      |            | 21                      | 57.2       | 21.9      |            | 3.8                          | 78.4       | 17.8      |            |            |
| PHF                                                        | .783                    | .849       | .833      | .860       | .725                         | .909       | .818      | .913       | .906                    | .912       | .885      | .905       | .643                         | .965       | .933      | .956       | .973       |

City of Palm Desert  
N/S: Portola Road  
E/W: Country Club Drive  
Weather: Clear

File Name : 09\_PLD\_Port\_Country PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:30 PM  |            |           |            | 04:30 PM  |            |           |            | 04:30 PM  |            |           |            | 04:15 PM  |            |           |            |
|--------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| +0 mins.     | 12        | 79         | 8         | 99         | 46        | 121        | <b>37</b> | 204        | <b>45</b> | <b>122</b> | <b>48</b> | <b>215</b> | 7         | <b>205</b> | 40        | <b>252</b> |
| +15 mins.    | 18        | 95         | 13        | 126        | 45        | 122        | 29        | 196        | 36        | 89         | 42        | 167        | 7         | 190        | <b>45</b> | 242        |
| +30 mins.    | <b>23</b> | 92         | 14        | 129        | 25        | <b>146</b> | 31        | 202        | 44        | 122        | 46        | 212        | <b>14</b> | 189        | 44        | 247        |
| +45 mins.    | 19        | <b>111</b> | <b>15</b> | <b>145</b> | <b>61</b> | 142        | 24        | <b>227</b> | 38        | 112        | 34        | 184        | 5         | 192        | 44        | 241        |
| Total Volume | 72        | 377        | 50        | 499        | 177       | 531        | 121       | 829        | 163       | 445        | 170       | 778        | 33        | 776        | 173       | 982        |
| % App. Total | 14.4      | 75.6       | 10        |            | 21.4      | 64.1       | 14.6      |            | 21        | 57.2       | 21.9      |            | 3.4       | 79         | 17.6      |            |
| PHF          | .783      | .849       | .833      | .860       | .725      | .909       | .818      | .913       | .906      | .912       | .885      | .905       | .589      | .946       | .961      | .974       |

City of Palm Desert  
N/S: Cook Street  
E/W: University Park Drive/Berger Dr W  
Weather: Clear

File Name : 11\_PLD\_Cook\_Uni AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

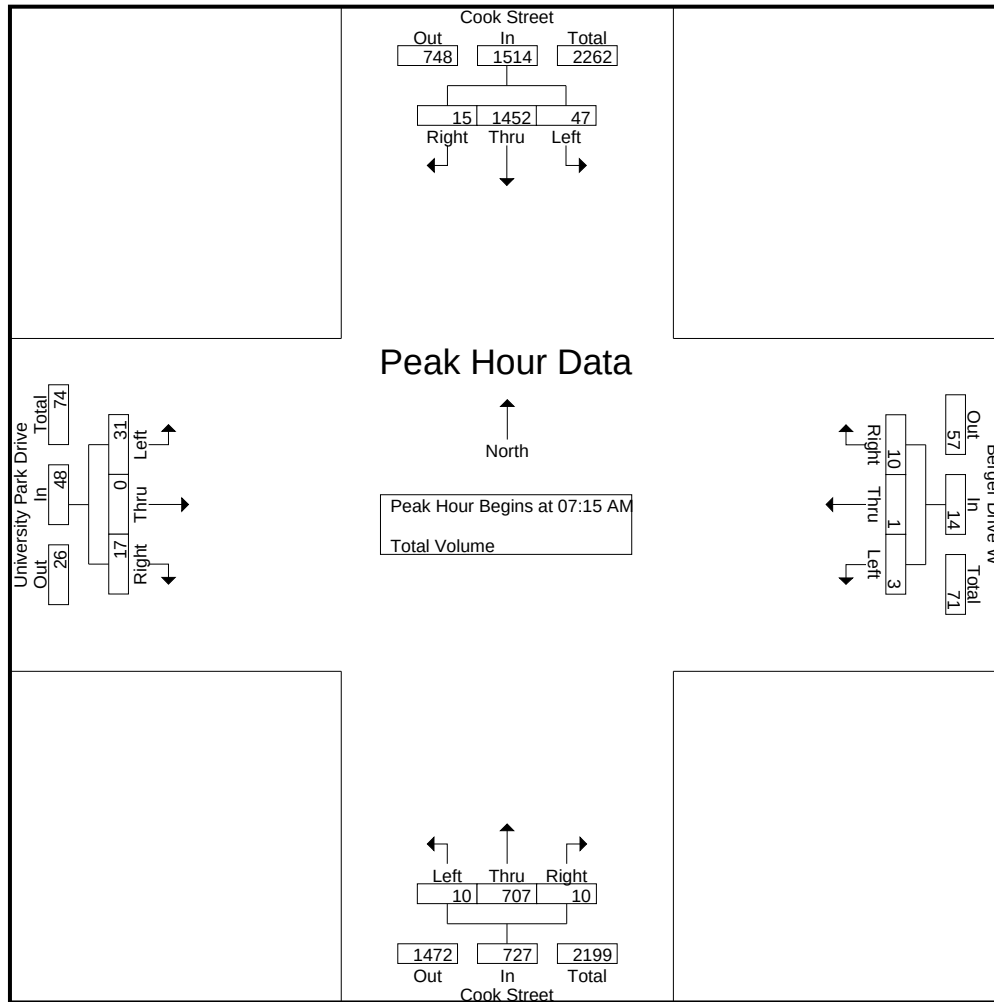
Groups Printed- Total Volume

|             | Cook Street Southbound |      |       |            | Berger Drive W Westbound |      |       |            | Cook Street Northbound |      |       |            | University Park Drive Eastbound |      |       |            |            |
|-------------|------------------------|------|-------|------------|--------------------------|------|-------|------------|------------------------|------|-------|------------|---------------------------------|------|-------|------------|------------|
| Start Time  | Left                   | Thru | Right | App. Total | Left                     | Thru | Right | App. Total | Left                   | Thru | Right | App. Total | Left                            | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 6                      | 215  | 5     | 226        | 0                        | 0    | 1     | 1          | 4                      | 110  | 2     | 116        | 5                               | 1    | 3     | 9          | 352        |
| 07:15 AM    | 5                      | 331  | 3     | 339        | 0                        | 0    | 3     | 3          | 3                      | 150  | 0     | 153        | 10                              | 0    | 7     | 17         | 512        |
| 07:30 AM    | 14                     | 373  | 1     | 388        | 0                        | 0    | 2     | 2          | 1                      | 184  | 2     | 187        | 6                               | 0    | 4     | 10         | 587        |
| 07:45 AM    | 13                     | 421  | 8     | 442        | 2                        | 1    | 3     | 6          | 3                      | 177  | 3     | 183        | 9                               | 0    | 3     | 12         | 643        |
| Total       | 38                     | 1340 | 17    | 1395       | 2                        | 1    | 9     | 12         | 11                     | 621  | 7     | 639        | 30                              | 1    | 17    | 48         | 2094       |
| 08:00 AM    | 15                     | 327  | 3     | 345        | 1                        | 0    | 2     | 3          | 3                      | 196  | 5     | 204        | 6                               | 0    | 3     | 9          | 561        |
| 08:15 AM    | 6                      | 319  | 5     | 330        | 0                        | 0    | 3     | 3          | 5                      | 161  | 1     | 167        | 4                               | 0    | 6     | 10         | 510        |
| 08:30 AM    | 19                     | 294  | 10    | 323        | 1                        | 1    | 3     | 5          | 11                     | 198  | 0     | 209        | 7                               | 0    | 0     | 7          | 544        |
| 08:45 AM    | 31                     | 342  | 4     | 377        | 1                        | 2    | 5     | 8          | 5                      | 193  | 6     | 204        | 7                               | 0    | 1     | 8          | 597        |
| Total       | 71                     | 1282 | 22    | 1375       | 3                        | 3    | 13    | 19         | 24                     | 748  | 12    | 784        | 24                              | 0    | 10    | 34         | 2212       |
| Grand Total | 109                    | 2622 | 39    | 2770       | 5                        | 4    | 22    | 31         | 35                     | 1369 | 19    | 1423       | 54                              | 1    | 27    | 82         | 4306       |
| Apprch %    | 3.9                    | 94.7 | 1.4   |            | 16.1                     | 12.9 | 71    |            | 2.5                    | 96.2 | 1.3   |            | 65.9                            | 1.2  | 32.9  |            |            |
| Total %     | 2.5                    | 60.9 | 0.9   | 64.3       | 0.1                      | 0.1  | 0.5   | 0.7        | 0.8                    | 31.8 | 0.4   | 33         | 1.3                             | 0    | 0.6   | 1.9        |            |

|                                                            | Cook Street Southbound |            |          |            | Berger Drive W Westbound |          |       |            | Cook Street Northbound |            |          |            | University Park Drive Eastbound |      |       |            |            |
|------------------------------------------------------------|------------------------|------------|----------|------------|--------------------------|----------|-------|------------|------------------------|------------|----------|------------|---------------------------------|------|-------|------------|------------|
| Start Time                                                 | Left                   | Thru       | Right    | App. Total | Left                     | Thru     | Right | App. Total | Left                   | Thru       | Right    | App. Total | Left                            | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                        |            |          |            |                          |          |       |            |                        |            |          |            |                                 |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:15 AM       |                        |            |          |            |                          |          |       |            |                        |            |          |            |                                 |      |       |            |            |
| 07:15 AM                                                   | 5                      | 331        | 3        | 339        | 0                        | 0        | 3     | 3          | 3                      | 150        | 0        | 153        | 10                              | 0    | 7     | 17         | 512        |
| 07:30 AM                                                   | 14                     | 373        | 1        | 388        | 0                        | 0        | 2     | 2          | 1                      | 184        | 2        | 187        | 6                               | 0    | 4     | 10         | 587        |
| 07:45 AM                                                   | 13                     | <b>421</b> | <b>8</b> | <b>442</b> | <b>2</b>                 | <b>1</b> | 3     | <b>6</b>   | 3                      | 177        | 3        | 183        | 9                               | 0    | 3     | 12         | <b>643</b> |
| 08:00 AM                                                   | <b>15</b>              | 327        | 3        | 345        | 1                        | 0        | 2     | 3          | 3                      | <b>196</b> | <b>5</b> | <b>204</b> | 6                               | 0    | 3     | 9          | 561        |
| Total Volume                                               | 47                     | 1452       | 15       | 1514       | 3                        | 1        | 10    | 14         | 10                     | 707        | 10       | 727        | 31                              | 0    | 17    | 48         | 2303       |
| % App. Total                                               | 3.1                    | 95.9       | 1        |            | 21.4                     | 7.1      | 71.4  |            | 1.4                    | 97.2       | 1.4      |            | 64.6                            | 0    | 35.4  |            |            |
| PHF                                                        | .783                   | .862       | .469     | .856       | .375                     | .250     | .833  | .583       | .833                   | .902       | .500     | .891       | .775                            | .000 | .607  | .706       | .895       |

City of Palm Desert  
N/S: Cook Street  
E/W: University Park Drive/Berger Dr W  
Weather: Clear

File Name : 11\_PLD\_Cook\_Uni AM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 07:15 AM |      |      |      | 08:00 AM |      |      |      | 08:00 AM |      |      |      | 07:00 AM |      |      |      |
|--------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|----------|------|------|------|
| +0 mins.     | 5        | 331  | 3    | 339  | 1        | 0    | 2    | 3    | 3        | 196  | 5    | 204  | 5        | 1    | 3    | 9    |
| +15 mins.    | 14       | 373  | 1    | 388  | 0        | 0    | 3    | 3    | 5        | 161  | 1    | 167  | 10       | 0    | 7    | 17   |
| +30 mins.    | 13       | 421  | 8    | 442  | 1        | 1    | 3    | 5    | 11       | 198  | 0    | 209  | 6        | 0    | 4    | 10   |
| +45 mins.    | 15       | 327  | 3    | 345  | 1        | 2    | 5    | 8    | 5        | 193  | 6    | 204  | 9        | 0    | 3    | 12   |
| Total Volume | 47       | 1452 | 15   | 1514 | 3        | 3    | 13   | 19   | 24       | 748  | 12   | 784  | 30       | 1    | 17   | 48   |
| % App. Total | 3.1      | 95.9 | 1    |      | 15.8     | 15.8 | 68.4 |      | 3.1      | 95.4 | 1.5  |      | 62.5     | 2.1  | 35.4 |      |
| PHF          | .783     | .862 | .469 | .856 | .750     | .375 | .650 | .594 | .545     | .944 | .500 | .938 | .750     | .250 | .607 | .706 |

City of Palm Desert  
N/S: Cook Street  
E/W: University Park Drive/Berger Dr W  
Weather: Clear

File Name : 11\_PLD\_Cook\_Uni PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 1

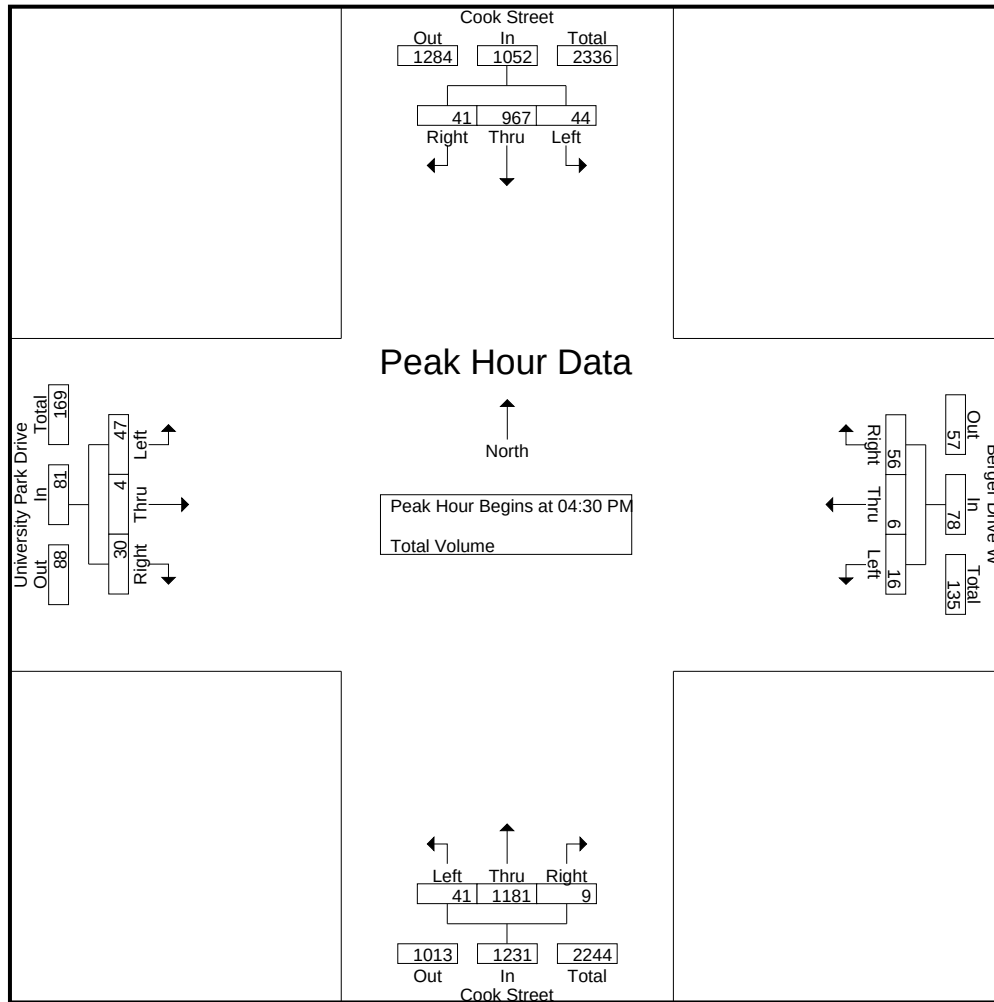
Groups Printed- Total Volume

|             | Cook Street Southbound |      |       |            | Berger Drive W Westbound |      |       |            | Cook Street Northbound |      |       |            | University Park Drive Eastbound |      |       |            |            |
|-------------|------------------------|------|-------|------------|--------------------------|------|-------|------------|------------------------|------|-------|------------|---------------------------------|------|-------|------------|------------|
| Start Time  | Left                   | Thru | Right | App. Total | Left                     | Thru | Right | App. Total | Left                   | Thru | Right | App. Total | Left                            | Thru | Right | App. Total | Int. Total |
| 04:00 PM    | 9                      | 239  | 5     | 253        | 4                        | 2    | 7     | 13         | 9                      | 297  | 3     | 309        | 5                               | 1    | 5     | 11         | 586        |
| 04:15 PM    | 11                     | 237  | 4     | 252        | 0                        | 0    | 2     | 2          | 9                      | 284  | 2     | 295        | 7                               | 0    | 6     | 13         | 562        |
| 04:30 PM    | 8                      | 245  | 12    | 265        | 2                        | 0    | 2     | 4          | 14                     | 292  | 2     | 308        | 9                               | 0    | 10    | 19         | 596        |
| 04:45 PM    | 4                      | 234  | 13    | 251        | 1                        | 1    | 5     | 7          | 6                      | 267  | 0     | 273        | 15                              | 1    | 9     | 25         | 556        |
| Total       | 32                     | 955  | 34    | 1021       | 7                        | 3    | 16    | 26         | 38                     | 1140 | 7     | 1185       | 36                              | 2    | 30    | 68         | 2300       |
| 05:00 PM    | 15                     | 268  | 6     | 289        | 4                        | 1    | 15    | 20         | 10                     | 341  | 2     | 353        | 13                              | 2    | 3     | 18         | 680        |
| 05:15 PM    | 17                     | 220  | 10    | 247        | 9                        | 4    | 34    | 47         | 11                     | 281  | 5     | 297        | 10                              | 1    | 8     | 19         | 610        |
| 05:30 PM    | 17                     | 217  | 6     | 240        | 2                        | 2    | 8     | 12         | 6                      | 261  | 5     | 272        | 9                               | 0    | 5     | 14         | 538        |
| 05:45 PM    | 6                      | 203  | 4     | 213        | 0                        | 0    | 5     | 5          | 6                      | 237  | 0     | 243        | 11                              | 1    | 3     | 15         | 476        |
| Total       | 55                     | 908  | 26    | 989        | 15                       | 7    | 62    | 84         | 33                     | 1120 | 12    | 1165       | 43                              | 4    | 19    | 66         | 2304       |
| Grand Total | 87                     | 1863 | 60    | 2010       | 22                       | 10   | 78    | 110        | 71                     | 2260 | 19    | 2350       | 79                              | 6    | 49    | 134        | 4604       |
| Apprch %    | 4.3                    | 92.7 | 3     |            | 20                       | 9.1  | 70.9  |            | 3                      | 96.2 | 0.8   |            | 59                              | 4.5  | 36.6  |            |            |
| Total %     | 1.9                    | 40.5 | 1.3   | 43.7       | 0.5                      | 0.2  | 1.7   | 2.4        | 1.5                    | 49.1 | 0.4   | 51         | 1.7                             | 0.1  | 1.1   | 2.9        |            |

|                                                            | Cook Street Southbound |      |       |            | Berger Drive W Westbound |      |       |            | Cook Street Northbound |      |       |            | University Park Drive Eastbound |      |       |            |            |
|------------------------------------------------------------|------------------------|------|-------|------------|--------------------------|------|-------|------------|------------------------|------|-------|------------|---------------------------------|------|-------|------------|------------|
| Start Time                                                 | Left                   | Thru | Right | App. Total | Left                     | Thru | Right | App. Total | Left                   | Thru | Right | App. Total | Left                            | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                        |      |       |            |                          |      |       |            |                        |      |       |            |                                 |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 04:30 PM       |                        |      |       |            |                          |      |       |            |                        |      |       |            |                                 |      |       |            |            |
| 04:30 PM                                                   | 8                      | 245  | 12    | 265        | 2                        | 0    | 2     | 4          | 14                     | 292  | 2     | 308        | 9                               | 0    | 10    | 19         | 596        |
| 04:45 PM                                                   | 4                      | 234  | 13    | 251        | 1                        | 1    | 5     | 7          | 6                      | 267  | 0     | 273        | 15                              | 1    | 9     | 25         | 556        |
| 05:00 PM                                                   | 15                     | 268  | 6     | 289        | 4                        | 1    | 15    | 20         | 10                     | 341  | 2     | 353        | 13                              | 2    | 3     | 18         | 680        |
| 05:15 PM                                                   | 17                     | 220  | 10    | 247        | 9                        | 4    | 34    | 47         | 11                     | 281  | 5     | 297        | 10                              | 1    | 8     | 19         | 610        |
| Total Volume                                               | 44                     | 967  | 41    | 1052       | 16                       | 6    | 56    | 78         | 41                     | 1181 | 9     | 1231       | 47                              | 4    | 30    | 81         | 2442       |
| % App. Total                                               | 4.2                    | 91.9 | 3.9   |            | 20.5                     | 7.7  | 71.8  |            | 3.3                    | 95.9 | 0.7   |            | 58                              | 4.9  | 37    |            |            |
| PHF                                                        | .647                   | .902 | .788  | .910       | .444                     | .375 | .412  | .415       | .732                   | .866 | .450  | .872       | .783                            | .500 | .750  | .810       | .898       |

City of Palm Desert  
N/S: Cook Street  
E/W: University Park Drive/Berger Dr W  
Weather: Clear

File Name : 11\_PLD\_Cook\_Uni PM  
Site Code : 05122144  
Start Date : 3/9/2022  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 04:15 PM |      |      |      | 04:45 PM |      |      |      | 04:30 PM |      |      |      | 04:30 PM |      |      |      |
|--------------|----------|------|------|------|----------|------|------|------|----------|------|------|------|----------|------|------|------|
| +0 mins.     | 11       | 237  | 4    | 252  | 1        | 1    | 5    | 7    | 14       | 292  | 2    | 308  | 9        | 0    | 10   | 19   |
| +15 mins.    | 8        | 245  | 12   | 265  | 4        | 1    | 15   | 20   | 6        | 267  | 0    | 273  | 15       | 1    | 9    | 25   |
| +30 mins.    | 4        | 234  | 13   | 251  | 9        | 4    | 34   | 47   | 10       | 341  | 2    | 353  | 13       | 2    | 3    | 18   |
| +45 mins.    | 15       | 268  | 6    | 289  | 2        | 2    | 8    | 12   | 11       | 281  | 5    | 297  | 10       | 1    | 8    | 19   |
| Total Volume | 38       | 984  | 35   | 1057 | 16       | 8    | 62   | 86   | 41       | 1181 | 9    | 1231 | 47       | 4    | 30   | 81   |
| % App. Total | 3.6      | 93.1 | 3.3  |      | 18.6     | 9.3  | 72.1 |      | 3.3      | 95.9 | 0.7  |      | 58       | 4.9  | 37   |      |
| PHF          | .633     | .918 | .673 | .914 | .444     | .500 | .456 | .457 | .732     | .866 | .450 | .872 | .783     | .500 | .750 | .810 |

# Counts Unlimited, Inc.

City of Palm Desert  
Frank Sinatra Drive  
W/ Portola Avenue  
24 Hour Directional Volume Count

PO Box 1178  
Corona, CA 92878  
Phone: (951) 268-6268  
email: counts@countsunlimited.com

PLDFSWPO  
Site Code: 051-22144

| Start Time     | 3/9/2022<br>Wed | Eastbound  |             | Hour Totals |           | Westbound |           | Hour Totals |           | Combined Totals |           |
|----------------|-----------------|------------|-------------|-------------|-----------|-----------|-----------|-------------|-----------|-----------------|-----------|
|                |                 | Morning    | Afternoon   | Morning     | Afternoon | Morning   | Afternoon | Morning     | Afternoon | Morning         | Afternoon |
| 12:00          |                 | 4          | 96          |             |           | 4         | 127       |             |           |                 |           |
| 12:15          |                 | 4          | 44          |             |           | 5         | 114       |             |           |                 |           |
| 12:30          |                 | 4          | 107         |             |           | 3         | 121       |             |           |                 |           |
| 12:45          |                 | 7          | 100         | 19          | 347       | 4         | 128       | 16          | 490       | 35              | 837       |
| 01:00          |                 | 7          | 120         |             |           | 0         | 130       |             |           |                 |           |
| 01:15          |                 | 2          | 126         |             |           | 5         | 109       |             |           |                 |           |
| 01:30          |                 | 3          | 139         |             |           | 1         | 141       |             |           |                 |           |
| 01:45          |                 | 1          | 139         | 13          | 524       | 2         | 139       | 8           | 519       | 21              | 1043      |
| 02:00          |                 | 2          | 127         |             |           | 1         | 124       |             |           |                 |           |
| 02:15          |                 | 2          | 124         |             |           | 0         | 146       |             |           |                 |           |
| 02:30          |                 | 3          | 175         |             |           | 2         | 127       |             |           |                 |           |
| 02:45          |                 | 7          | 176         | 14          | 602       | 1         | 122       | 4           | 519       | 18              | 1121      |
| 03:00          |                 | 1          | 178         |             |           | 4         | 128       |             |           |                 |           |
| 03:15          |                 | 3          | 141         |             |           | 0         | 127       |             |           |                 |           |
| 03:30          |                 | 1          | 168         |             |           | 2         | 123       |             |           |                 |           |
| 03:45          |                 | 2          | 172         | 7           | 659       | 5         | 137       | 11          | 515       | 18              | 1174      |
| 04:00          |                 | 2          | 143         |             |           | 5         | 153       |             |           |                 |           |
| 04:15          |                 | 4          | 168         |             |           | 4         | 142       |             |           |                 |           |
| 04:30          |                 | 9          | 179         |             |           | 16        | 127       |             |           |                 |           |
| 04:45          |                 | 11         | 133         | 26          | 623       | 21        | 107       | 46          | 529       | 72              | 1152      |
| 05:00          |                 | 6          | 196         |             |           | 14        | 108       |             |           |                 |           |
| 05:15          |                 | 11         | 167         |             |           | 31        | 135       |             |           |                 |           |
| 05:30          |                 | 12         | 146         |             |           | 40        | 128       |             |           |                 |           |
| 05:45          |                 | 14         | 129         | 43          | 638       | 47        | 106       | 132         | 477       | 175             | 1115      |
| 06:00          |                 | 26         | 101         |             |           | 55        | 69        |             |           |                 |           |
| 06:15          |                 | 30         | 73          |             |           | 71        | 93        |             |           |                 |           |
| 06:30          |                 | 46         | 80          |             |           | 95        | 80        |             |           |                 |           |
| 06:45          |                 | 44         | 53          | 146         | 307       | 162       | 73        | 383         | 315       | 529             | 622       |
| 07:00          |                 | 63         | 70          |             |           | 114       | 57        |             |           |                 |           |
| 07:15          |                 | 75         | 54          |             |           | 154       | 57        |             |           |                 |           |
| 07:30          |                 | 102        | 71          |             |           | 194       | 39        |             |           |                 |           |
| 07:45          |                 | 131        | 52          | 371         | 247       | 197       | 65        | 659         | 218       | 1030            | 465       |
| 08:00          |                 | 105        | 64          |             |           | 172       | 42        |             |           |                 |           |
| 08:15          |                 | 99         | 43          |             |           | 171       | 24        |             |           |                 |           |
| 08:30          |                 | 110        | 55          |             |           | 175       | 31        |             |           |                 |           |
| 08:45          |                 | 96         | 42          | 410         | 204       | 149       | 30        | 667         | 127       | 1077            | 331       |
| 09:00          |                 | 89         | 55          |             |           | 137       | 23        |             |           |                 |           |
| 09:15          |                 | 100        | 49          |             |           | 120       | 26        |             |           |                 |           |
| 09:30          |                 | 116        | 41          |             |           | 136       | 38        |             |           |                 |           |
| 09:45          |                 | 102        | 36          | 407         | 181       | 139       | 37        | 532         | 124       | 939             | 305       |
| 10:00          |                 | 117        | 24          |             |           | 146       | 17        |             |           |                 |           |
| 10:15          |                 | 82         | 27          |             |           | 139       | 18        |             |           |                 |           |
| 10:30          |                 | 102        | 30          |             |           | 126       | 11        |             |           |                 |           |
| 10:45          |                 | 89         | 17          | 390         | 98        | 133       | 17        | 544         | 63        | 934             | 161       |
| 11:00          |                 | 128        | 15          |             |           | 130       | 10        |             |           |                 |           |
| 11:15          |                 | 95         | 9           |             |           | 108       | 8         |             |           |                 |           |
| 11:30          |                 | 122        | 10          |             |           | 131       | 13        |             |           |                 |           |
| 11:45          |                 | 109        | 13          | 454         | 47        | 118       | 3         | 487         | 34        | 941             | 81        |
| Total          |                 | 2300       | 4477        | 2300        | 4477      | 3489      | 3930      | 3489        | 3930      | 5789            | 8407      |
| Combined Total |                 | 6777       |             | 6777        |           | 7419      |           | 7419        |           | 14196           |           |
| AM Peak        | -               | 11:00      | -           | -           | -         | 07:30     | -         | -           | -         | -               | -         |
| Vol.           | -               | 454        | -           | -           | -         | 734       | -         | -           | -         | -               | -         |
| P.H.F.         |                 | 0.887      |             |             |           | 0.931     |           |             |           |                 |           |
| PM Peak        | -               | -          | 04:15       | -           | -         | -         | 03:45     | -           | -         | -               | -         |
| Vol.           | -               | -          | 676         | -           | -         | -         | 559       | -           | -         | -               | -         |
| P.H.F.         |                 |            | 0.862       |             |           |           | 0.913     |             |           |                 |           |
| Percentage     |                 | 33.9%      | 66.1%       |             |           | 47.0%     | 53.0%     |             |           |                 |           |
| ADT/AADT       |                 | ADT 14,196 | AADT 14,196 |             |           |           |           |             |           |                 |           |

# Counts Unlimited, Inc.

City of Palm Desert  
Portila Avenue  
S/ Frank Sinatra Drive  
24 Hour Directional Volume Count

PO Box 1178  
Corona, CA 92878  
Phone: (951) 268-6268  
email: counts@countsunlimited.com

PLDPOSFS  
Site Code: 051-22144

| Start Time     | 3/9/2022 Wed | Northbound |             | Hour Totals |           | Southbound |           | Hour Totals |           | Combined Totals |           |
|----------------|--------------|------------|-------------|-------------|-----------|------------|-----------|-------------|-----------|-----------------|-----------|
|                |              | Morning    | Afternoon   | Morning     | Afternoon | Morning    | Afternoon | Morning     | Afternoon | Morning         | Afternoon |
| 12:00          |              | 6          | 140         |             |           | 4          | 97        |             |           |                 |           |
| 12:15          |              | 9          | 177         |             |           | 2          | 99        |             |           |                 |           |
| 12:30          |              | 4          | 146         |             |           | 6          | 107       |             |           |                 |           |
| 12:45          |              | 3          | 131         | 22          | 594       | 3          | 114       | 15          | 417       | 37              | 1011      |
| 01:00          |              | 1          | 134         |             |           | 1          | 119       |             |           |                 |           |
| 01:15          |              | 4          | 158         |             |           | 9          | 122       |             |           |                 |           |
| 01:30          |              | 2          | 195         |             |           | 3          | 123       |             |           |                 |           |
| 01:45          |              | 7          | 185         | 14          | 672       | 3          | 136       | 16          | 500       | 30              | 1172      |
| 02:00          |              | 1          | 199         |             |           | 1          | 120       |             |           |                 |           |
| 02:15          |              | 2          | 198         |             |           | 5          | 148       |             |           |                 |           |
| 02:30          |              | 1          | 199         |             |           | 2          | 151       |             |           |                 |           |
| 02:45          |              | 2          | 240         | 6           | 836       | 2          | 152       | 10          | 571       | 16              | 1407      |
| 03:00          |              | 3          | 243         |             |           | 1          | 108       |             |           |                 |           |
| 03:15          |              | 5          | 220         |             |           | 1          | 134       |             |           |                 |           |
| 03:30          |              | 2          | 259         |             |           | 4          | 114       |             |           |                 |           |
| 03:45          |              | 2          | 229         | 12          | 951       | 6          | 138       | 12          | 494       | 24              | 1445      |
| 04:00          |              | 5          | 271         |             |           | 7          | 112       |             |           |                 |           |
| 04:15          |              | 5          | 197         |             |           | 8          | 138       |             |           |                 |           |
| 04:30          |              | 11         | 188         |             |           | 13         | 119       |             |           |                 |           |
| 04:45          |              | 14         | 155         | 35          | 811       | 21         | 131       | 49          | 500       | 84              | 1311      |
| 05:00          |              | 11         | 194         |             |           | 9          | 118       |             |           |                 |           |
| 05:15          |              | 21         | 186         |             |           | 8          | 123       |             |           |                 |           |
| 05:30          |              | 17         | 153         |             |           | 12         | 98        |             |           |                 |           |
| 05:45          |              | 26         | 122         | 75          | 655       | 26         | 88        | 55          | 427       | 130             | 1082      |
| 06:00          |              | 35         | 100         |             |           | 31         | 71        |             |           |                 |           |
| 06:15          |              | 39         | 83          |             |           | 55         | 67        |             |           |                 |           |
| 06:30          |              | 59         | 84          |             |           | 51         | 65        |             |           |                 |           |
| 06:45          |              | 82         | 76          | 215         | 343       | 67         | 61        | 204         | 264       | 419             | 607       |
| 07:00          |              | 59         | 80          |             |           | 95         | 45        |             |           |                 |           |
| 07:15          |              | 83         | 70          |             |           | 104        | 68        |             |           |                 |           |
| 07:30          |              | 111        | 57          |             |           | 141        | 42        |             |           |                 |           |
| 07:45          |              | 126        | 55          | 379         | 262       | 186        | 38        | 526         | 193       | 905             | 455       |
| 08:00          |              | 180        | 57          |             |           | 127        | 48        |             |           |                 |           |
| 08:15          |              | 157        | 43          |             |           | 117        | 39        |             |           |                 |           |
| 08:30          |              | 149        | 41          |             |           | 124        | 27        |             |           |                 |           |
| 08:45          |              | 157        | 40          | 643         | 181       | 127        | 27        | 495         | 141       | 1138            | 322       |
| 09:00          |              | 128        | 40          |             |           | 105        | 41        |             |           |                 |           |
| 09:15          |              | 147        | 30          |             |           | 103        | 20        |             |           |                 |           |
| 09:30          |              | 108        | 39          |             |           | 92         | 25        |             |           |                 |           |
| 09:45          |              | 136        | 35          | 519         | 144       | 112        | 17        | 412         | 103       | 931             | 247       |
| 10:00          |              | 136        | 19          |             |           | 103        | 28        |             |           |                 |           |
| 10:15          |              | 170        | 19          |             |           | 99         | 19        |             |           |                 |           |
| 10:30          |              | 132        | 23          |             |           | 118        | 17        |             |           |                 |           |
| 10:45          |              | 149        | 16          | 587         | 77        | 95         | 19        | 415         | 83        | 1002            | 160       |
| 11:00          |              | 167        | 13          |             |           | 102        | 12        |             |           |                 |           |
| 11:15          |              | 149        | 11          |             |           | 103        | 11        |             |           |                 |           |
| 11:30          |              | 167        | 7           |             |           | 114        | 5         |             |           |                 |           |
| 11:45          |              | 190        | 5           | 673         | 36        | 105        | 8         | 424         | 36        | 1097            | 72        |
| Total          |              | 3180       | 5562        | 3180        | 5562      | 2633       | 3729      | 2633        | 3729      | 5813            | 9291      |
| Combined Total |              | 8742       |             | 8742        |           | 6362       |           | 6362        |           | 15104           |           |
| AM Peak        | -            | 11:00      | -           | -           | -         | 07:30      | -         | -           | -         | -               | -         |
| Vol.           | -            | 673        | -           | -           | -         | 571        | -         | -           | -         | -               | -         |
| P.H.F.         |              | 0.886      |             |             |           | 0.767      |           |             |           |                 |           |
| PM Peak        | -            | -          | 03:15       | -           | -         | -          | 02:00     | -           | -         | -               | -         |
| Vol.           | -            | -          | 979         | -           | -         | -          | 571       | -           | -         | -               | -         |
| P.H.F.         |              |            | 0.903       |             |           |            | 0.939     |             |           |                 |           |
| Percentage     |              | 36.4%      | 63.6%       |             |           | 41.4%      | 58.6%     |             |           |                 |           |
| ADT/AADT       |              | ADT 15,104 | AADT 15,104 |             |           |            |           |             |           |                 |           |

## **APPENDIX 3.2:**

### **EXISTING (2022) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

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Lanes, Volumes, Timings  
1: Monterey Av. & Frank Sinatra Dr.

Existing (2022) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 41                                                                                | 272                                                                               | 106                                                                               | 182                                                                               | 575                                                                               | 63                                                                                | 73                                                                                 | 580                                                                                 | 34                                                                                  | 51                                                                                  | 1181                                                                                | 92                                                                                  |
| Future Volume (vph)     | 41                                                                                | 272                                                                               | 106                                                                               | 182                                                                               | 575                                                                               | 63                                                                                | 73                                                                                 | 580                                                                                 | 34                                                                                  | 51                                                                                  | 1181                                                                                | 92                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 160                                                                               |                                                                                   | 150                                                                               | 140                                                                               |                                                                                   | 140                                                                               | 250                                                                                |                                                                                     | 150                                                                                 | 200                                                                                 |                                                                                     | 175                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 100                                                                               |                                                                                   |                                                                                   | 120                                                                               |                                                                                   |                                                                                   | 120                                                                                |                                                                                     |                                                                                     | 120                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1182                                                                              |                                                                                   |                                                                                   | 5371                                                                              |                                                                                   |                                                                                    | 1281                                                                                |                                                                                     |                                                                                     | 1753                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 16.1                                                                              |                                                                                   |                                                                                   | 73.2                                                                              |                                                                                   |                                                                                    | 15.9                                                                                |                                                                                     |                                                                                     | 21.7                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                               | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 46                                                                                | 302                                                                               | 118                                                                               | 202                                                                               | 639                                                                               | 70                                                                                | 81                                                                                 | 644                                                                                 | 38                                                                                  | 57                                                                                  | 1312                                                                                | 102                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 46                                                                                | 302                                                                               | 118                                                                               | 202                                                                               | 639                                                                               | 70                                                                                | 81                                                                                 | 682                                                                                 | 0                                                                                   | 57                                                                                  | 1312                                                                                | 102                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: Monterey Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
1: Monterey Av. & Frank Sinatra Dr.

Existing (2022) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (veh/h)       | 41                                                                                | 272                                                                               | 106                                                                               | 182                                                                               | 575                                                                               | 63                                                                                | 73                                                                                  | 580                                                                                 | 34                                                                                  | 51                                                                                  | 1181                                                                                | 92                                                                                  |
| Future Volume (veh/h)        | 41                                                                                | 272                                                                               | 106                                                                               | 182                                                                               | 575                                                                               | 63                                                                                | 73                                                                                  | 580                                                                                 | 34                                                                                  | 51                                                                                  | 1181                                                                                | 92                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 46                                                                                | 302                                                                               | 118                                                                               | 202                                                                               | 639                                                                               | 70                                                                                | 81                                                                                  | 644                                                                                 | 38                                                                                  | 57                                                                                  | 1312                                                                                | 102                                                                                 |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 154                                                                               | 679                                                                               | 301                                                                               | 288                                                                               | 817                                                                               | 362                                                                               | 213                                                                                 | 1929                                                                                | 113                                                                                 | 177                                                                                 | 1942                                                                                | 601                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.19                                                                              | 0.19                                                                              | 0.08                                                                              | 0.23                                                                              | 0.23                                                                              | 0.06                                                                                | 0.39                                                                                | 0.39                                                                                | 0.05                                                                                | 0.38                                                                                | 0.38                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1573                                                                              | 3456                                                                              | 3554                                                                              | 1575                                                                              | 3456                                                                                | 4932                                                                                | 289                                                                                 | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 46                                                                                | 302                                                                               | 118                                                                               | 202                                                                               | 639                                                                               | 70                                                                                | 81                                                                                  | 443                                                                                 | 239                                                                                 | 57                                                                                  | 1312                                                                                | 102                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1573                                                                              | 1728                                                                              | 1777                                                                              | 1575                                                                              | 1728                                                                                | 1702                                                                                | 1817                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 0.8                                                                               | 4.5                                                                               | 3.9                                                                               | 3.4                                                                               | 10.1                                                                              | 2.1                                                                               | 1.4                                                                                 | 5.5                                                                                 | 5.5                                                                                 | 1.0                                                                                 | 12.9                                                                                | 2.6                                                                                 |
| Cycle Q Clear(g_c), s        | 0.8                                                                               | 4.5                                                                               | 3.9                                                                               | 3.4                                                                               | 10.1                                                                              | 2.1                                                                               | 1.4                                                                                 | 5.5                                                                                 | 5.5                                                                                 | 1.0                                                                                 | 12.9                                                                                | 2.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.16                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 154                                                                               | 679                                                                               | 301                                                                               | 288                                                                               | 817                                                                               | 362                                                                               | 213                                                                                 | 1331                                                                                | 711                                                                                 | 177                                                                                 | 1942                                                                                | 601                                                                                 |
| V/C Ratio(X)                 | 0.30                                                                              | 0.44                                                                              | 0.39                                                                              | 0.70                                                                              | 0.78                                                                              | 0.19                                                                              | 0.38                                                                                | 0.33                                                                                | 0.34                                                                                | 0.32                                                                                | 0.68                                                                                | 0.17                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                                 | 1331                                                                                | 711                                                                                 | 288                                                                                 | 1942                                                                                | 601                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.8                                                                              | 21.4                                                                              | 21.2                                                                              | 26.8                                                                              | 21.7                                                                              | 18.6                                                                              | 27.0                                                                                | 12.8                                                                                | 12.8                                                                                | 27.5                                                                                | 15.5                                                                                | 12.3                                                                                |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.5                                                                               | 0.8                                                                               | 7.4                                                                               | 3.7                                                                               | 0.3                                                                               | 1.1                                                                                 | 0.7                                                                                 | 1.3                                                                                 | 1.0                                                                                 | 1.9                                                                                 | 0.6                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.3                                                                               | 1.6                                                                               | 1.3                                                                               | 1.5                                                                               | 3.9                                                                               | 0.7                                                                               | 0.5                                                                                 | 1.7                                                                                 | 1.9                                                                                 | 0.4                                                                                 | 4.1                                                                                 | 0.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 28.8                                                                              | 21.9                                                                              | 22.1                                                                              | 34.2                                                                              | 25.4                                                                              | 18.9                                                                              | 28.2                                                                                | 13.5                                                                                | 14.1                                                                                | 28.5                                                                                | 17.4                                                                                | 12.9                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | B                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 466                                                                               |                                                                                   |                                                                                   | 911                                                                               |                                                                                   |                                                                                   | 763                                                                                 |                                                                                     |                                                                                     | 1471                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 22.6                                                                              |                                                                                   |                                                                                   | 26.9                                                                              |                                                                                   |                                                                                   | 15.2                                                                                |                                                                                     |                                                                                     | 17.5                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.6                                                                               | 27.5                                                                              | 9.5                                                                               | 15.5                                                                              | 8.2                                                                               | 26.8                                                                              | 7.2                                                                                 | 17.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.0                                                                               | 7.5                                                                               | 5.4                                                                               | 6.5                                                                               | 3.4                                                                               | 14.9                                                                              | 2.8                                                                                 | 12.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.6                                                                               | 0.0                                                                               | 1.4                                                                               | 0.0                                                                               | 1.6                                                                               | 0.0                                                                                 | 1.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 20.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
3: Frank Sinatra Dr. & Shepherd Ln.

Existing (2022) AM Peak Hour

|                         |  |                                                                                    |                                                                                    |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | WBT                                                                                                                                                                 | WBR                                                                               | SBL                                                                               | SBR                                                                               |
| Lane Configurations     |  |   |   |  |                                                                                   |  |
| Traffic Volume (vph)    | 22                                                                                | 400                                                                                                                                                                 | 718                                                                                                                                                                 | 18                                                                                | 0                                                                                 | 70                                                                                |
| Future Volume (vph)     | 22                                                                                | 400                                                                                                                                                                 | 718                                                                                                                                                                 | 18                                                                                | 0                                                                                 | 70                                                                                |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Storage Length (ft)     | 140                                                                               |                                                                                                                                                                     |                                                                                                                                                                     | 50                                                                                | 150                                                                               | 150                                                                               |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 0                                                                                 |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                   |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  | 50                                                                                                                                                                  |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)      |                                                                                   | 5371                                                                                                                                                                | 693                                                                                                                                                                 |                                                                                   | 810                                                                               |                                                                                   |
| Travel Time (s)         |                                                                                   | 73.2                                                                                                                                                                | 9.5                                                                                                                                                                 |                                                                                   | 18.4                                                                              |                                                                                   |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 | 5                                                                                 |
| Peak Hour Factor        | 0.91                                                                              | 0.91                                                                                                                                                                | 0.91                                                                                                                                                                | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              |
| Adj. Flow (vph)         | 24                                                                                | 440                                                                                                                                                                 | 789                                                                                                                                                                 | 20                                                                                | 0                                                                                 | 77                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 24                                                                                | 440                                                                                                                                                                 | 789                                                                                                                                                                 | 20                                                                                | 0                                                                                 | 77                                                                                |
| Sign Control            |                                                                                   | Free                                                                                                                                                                | Free                                                                                                                                                                |                                                                                   | Stop                                                                              |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
3: Frank Sinatra Dr. & Shepherd Ln.

Existing (2022) AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.9                                                                               |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBL   | SBR                                                                               |
| Lane Configurations      |  |  |  |  |       |  |
| Traffic Vol, veh/h       | 22                                                                                | 400                                                                               | 718                                                                               | 18                                                                                | 0     | 70                                                                                |
| Future Vol, veh/h        | 22                                                                                | 400                                                                               | 718                                                                               | 18                                                                                | 0     | 70                                                                                |
| Conflicting Peds, #/hr   | 5                                                                                 | 0                                                                                 | 0                                                                                 | 5                                                                                 | 5     | 5                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop  | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -     | None                                                                              |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | 50                                                                                | -     | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Peak Hour Factor         | 91                                                                                | 91                                                                                | 91                                                                                | 91                                                                                | 91    | 91                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2     | 2                                                                                 |
| Mvmt Flow                | 24                                                                                | 440                                                                               | 789                                                                               | 20                                                                                | 0     | 77                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2                                                                            |       |                                                                                   |
| Conflicting Flow All     | 814                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | 405                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -     | 6.94                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -     | 3.32                                                                              |
| Pot Cap-1 Maneuver       | 809                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 0     | 595                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |       |                                                                                   |
| Mov Cap-1 Maneuver       | 805                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -     | 589                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB                                                                                |       |                                                                                   |
| HCM Control Delay, s     | 0.5                                                                               | 0                                                                                 |                                                                                   | 12                                                                                |       |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBLn1 |                                                                                   |
| Capacity (veh/h)         | 805                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 589   |                                                                                   |
| HCM Lane V/C Ratio       | 0.03                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | 0.131 |                                                                                   |
| HCM Control Delay (s)    | 9.6                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 12    |                                                                                   |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | B     |                                                                                   |
| HCM 95th %tile O(veh)    | 0.1                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 0.4   |                                                                                   |

Lanes, Volumes, Timings  
4: Portola Av. & Frank Sinatra Dr.

Existing (2022) AM Peak Hour

|                         |  |  |  |  |  |  |   |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 17                                                                                | 268                                                                               | 115                                                                               | 130                                                                               | 597                                                                               | 18                                                                                | 119                                                                                 | 362                                                                                 | 65                                                                                  | 33                                                                                  | 330                                                                                 | 20                                                                                  |
| Future Volume (vph)     | 17                                                                                | 268                                                                               | 115                                                                               | 130                                                                               | 597                                                                               | 18                                                                                | 119                                                                                 | 362                                                                                 | 65                                                                                  | 33                                                                                  | 330                                                                                 | 20                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 120                                                                               |                                                                                   | 230                                                                               | 140                                                                               |                                                                                   | 100                                                                               | 260                                                                                 |                                                                                     | 50                                                                                  | 180                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 120                                                                                 |                                                                                     |                                                                                     | 190                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 693                                                                               |                                                                                   |                                                                                   | 4512                                                                              |                                                                                   |                                                                                     | 510                                                                                 |                                                                                     |                                                                                     | 1159                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 9.5                                                                               |                                                                                   |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                     | 6.3                                                                                 |                                                                                     |                                                                                     | 14.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                |
| Adj. Flow (vph)         | 19                                                                                | 305                                                                               | 131                                                                               | 148                                                                               | 678                                                                               | 20                                                                                | 135                                                                                 | 411                                                                                 | 74                                                                                  | 38                                                                                  | 375                                                                                 | 23                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 19                                                                                | 305                                                                               | 131                                                                               | 148                                                                               | 678                                                                               | 20                                                                                | 135                                                                                 | 411                                                                                 | 74                                                                                  | 38                                                                                  | 398                                                                                 | 0                                                                                   |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 10.2                                                                              | 20.7                                                                              | 20.7                                                                              | 9.8                                                                                 | 20.2                                                                                | 20.2                                                                                | 9.6                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 17.0%                                                                             | 34.5%                                                                             | 34.5%                                                                             | 16.3%                                                                               | 33.7%                                                                               | 33.7%                                                                               | 16.0%                                                                               | 33.3%                                                                               |                                                                                     |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |                                                                                     |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               |                                                                                     |

Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated

Splits and Phases: 4: Portola Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.6 s                                                                                  | 20.2 s                                                                                     | 10.2 s                                                                                 | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.8 s                                                                                  | 20 s                                                                                       | 9.5 s                                                                                  | 20.7 s                                                                                   |

HCM 6th Signalized Intersection Summary  
4: Portola Av. & Frank Sinatra Dr.

Existing (2022) AM Peak Hour

|                              |  |                                                                                    |  |  |                                                                                    |  |  |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (veh/h)       | 17                                                                                | 268                                                                                                                                                                 | 115                                                                               | 130                                                                               | 597                                                                                                                                                                 | 18                                                                                | 119                                                                                 | 362                                                                                                                                                                                                                                                         | 65                                                                                  | 33                                                                                  | 330                                                                                                                                                                                                                                                         | 20                                                                                  |
| Future Volume (veh/h)        | 17                                                                                | 268                                                                                                                                                                 | 115                                                                               | 130                                                                               | 597                                                                                                                                                                 | 18                                                                                | 119                                                                                 | 362                                                                                                                                                                                                                                                         | 65                                                                                  | 33                                                                                  | 330                                                                                                                                                                                                                                                         | 20                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 19                                                                                | 305                                                                                                                                                                 | 131                                                                               | 148                                                                               | 678                                                                                                                                                                 | 20                                                                                | 135                                                                                 | 411                                                                                                                                                                                                                                                         | 74                                                                                  | 38                                                                                  | 375                                                                                                                                                                                                                                                         | 23                                                                                  |
| Peak Hour Factor             | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 40                                                                                | 596                                                                                                                                                                 | 263                                                                               | 169                                                                               | 853                                                                                                                                                                 | 378                                                                               | 157                                                                                 | 2118                                                                                                                                                                                                                                                        | 655                                                                                 | 70                                                                                  | 1799                                                                                                                                                                                                                                                        | 109                                                                                 |
| Arrive On Green              | 0.02                                                                              | 0.17                                                                                                                                                                | 0.17                                                                              | 0.09                                                                              | 0.24                                                                                                                                                                | 0.24                                                                              | 0.09                                                                                | 0.41                                                                                                                                                                                                                                                        | 0.41                                                                                | 0.04                                                                                | 0.37                                                                                                                                                                                                                                                        | 0.37                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                                                                                                                | 1571                                                                              | 1781                                                                              | 3554                                                                                                                                                                | 1575                                                                              | 1781                                                                                | 5106                                                                                                                                                                                                                                                        | 1579                                                                                | 1781                                                                                | 4921                                                                                                                                                                                                                                                        | 299                                                                                 |
| Grp Volume(v), veh/h         | 19                                                                                | 305                                                                                                                                                                 | 131                                                                               | 148                                                                               | 678                                                                                                                                                                 | 20                                                                                | 135                                                                                 | 411                                                                                                                                                                                                                                                         | 74                                                                                  | 38                                                                                  | 258                                                                                                                                                                                                                                                         | 140                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                                                                                                                | 1571                                                                              | 1781                                                                              | 1777                                                                                                                                                                | 1575                                                                              | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1579                                                                                | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1815                                                                                |
| Q Serve(g_s), s              | 0.6                                                                               | 4.7                                                                                                                                                                 | 4.5                                                                               | 4.9                                                                               | 10.8                                                                                                                                                                | 0.6                                                                               | 4.5                                                                                 | 3.1                                                                                                                                                                                                                                                         | 1.7                                                                                 | 1.3                                                                                 | 3.1                                                                                                                                                                                                                                                         | 3.2                                                                                 |
| Cycle Q Clear(g_c), s        | 0.6                                                                               | 4.7                                                                                                                                                                 | 4.5                                                                               | 4.9                                                                               | 10.8                                                                                                                                                                | 0.6                                                                               | 4.5                                                                                 | 3.1                                                                                                                                                                                                                                                         | 1.7                                                                                 | 1.3                                                                                 | 3.1                                                                                                                                                                                                                                                         | 3.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.16                                                                                |
| Lane Grp Cap(c), veh/h       | 40                                                                                | 596                                                                                                                                                                 | 263                                                                               | 169                                                                               | 853                                                                                                                                                                 | 378                                                                               | 157                                                                                 | 2118                                                                                                                                                                                                                                                        | 655                                                                                 | 70                                                                                  | 1245                                                                                                                                                                                                                                                        | 664                                                                                 |
| V/C Ratio(X)                 | 0.47                                                                              | 0.51                                                                                                                                                                | 0.50                                                                              | 0.87                                                                              | 0.79                                                                                                                                                                | 0.05                                                                              | 0.86                                                                                | 0.19                                                                                                                                                                                                                                                        | 0.11                                                                                | 0.55                                                                                | 0.21                                                                                                                                                                                                                                                        | 0.21                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 948                                                                                                                                                                 | 419                                                                               | 169                                                                               | 989                                                                                                                                                                 | 438                                                                               | 157                                                                                 | 2118                                                                                                                                                                                                                                                        | 655                                                                                 | 151                                                                                 | 1245                                                                                                                                                                                                                                                        | 664                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 0.90                                                                              | 0.90                                                                                                                                                                | 0.90                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 29.0                                                                              | 22.7                                                                                                                                                                | 22.7                                                                              | 26.8                                                                              | 21.4                                                                                                                                                                | 17.5                                                                              | 27.0                                                                                | 11.2                                                                                                                                                                                                                                                        | 10.8                                                                                | 28.3                                                                                | 13.1                                                                                                                                                                                                                                                        | 13.1                                                                                |
| Incr Delay (d2), s/veh       | 8.3                                                                               | 0.7                                                                                                                                                                 | 1.5                                                                               | 33.6                                                                              | 3.6                                                                                                                                                                 | 0.1                                                                               | 34.8                                                                                | 0.2                                                                                                                                                                                                                                                         | 0.3                                                                                 | 6.5                                                                                 | 0.4                                                                                                                                                                                                                                                         | 0.7                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.3                                                                               | 1.7                                                                                                                                                                 | 1.5                                                                               | 3.4                                                                               | 4.1                                                                                                                                                                 | 0.2                                                                               | 3.2                                                                                 | 0.9                                                                                                                                                                                                                                                         | 0.5                                                                                 | 0.6                                                                                 | 1.0                                                                                                                                                                                                                                                         | 1.1                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 37.3                                                                              | 23.4                                                                                                                                                                | 24.1                                                                              | 60.4                                                                              | 25.0                                                                                                                                                                | 17.6                                                                              | 61.8                                                                                | 11.4                                                                                                                                                                                                                                                        | 11.1                                                                                | 34.8                                                                                | 13.4                                                                                                                                                                                                                                                        | 13.8                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                   | C                                                                                 | E                                                                                 | C                                                                                                                                                                   | B                                                                                 | E                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   | C                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 455                                                                                                                                                                 |                                                                                   |                                                                                   | 846                                                                                                                                                                 |                                                                                   |                                                                                     | 620                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 436                                                                                                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 24.2                                                                                                                                                                |                                                                                   |                                                                                   | 31.0                                                                                                                                                                |                                                                                   |                                                                                     | 22.3                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     | 15.4                                                                                                                                                                                                                                                        |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                     | C                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     | B                                                                                                                                                                                                                                                           |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                   | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                   | 6                                                                                 | 7                                                                                   | 8                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 6.8                                                                               | 28.9                                                                                                                                                                | 10.2                                                                              | 14.1                                                                              | 9.8                                                                                                                                                                 | 25.9                                                                              | 5.9                                                                                 | 18.4                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 5.1                                                                               | 16.2                                                                                                                                                                | 5.7                                                                               | 16.0                                                                              | 5.3                                                                                                                                                                 | 16.0                                                                              | 5.0                                                                                 | 16.7                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.3                                                                               | 5.1                                                                                                                                                                 | 6.9                                                                               | 6.7                                                                               | 6.5                                                                                                                                                                 | 5.2                                                                               | 2.6                                                                                 | 12.8                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 1.9                                                                                                                                                                 | 0.0                                                                               | 1.5                                                                               | 0.0                                                                                                                                                                 | 1.5                                                                               | 0.0                                                                                 | 1.5                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                     | 24.5                                                                              |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                     | C                                                                                 |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

Lanes, Volumes, Timings  
5: Cook St. & Frank Sinatra Dr.

Existing (2022) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (vph)    | 154                                                                               | 115                                                                               | 118                                                                               | 57                                                                                | 233                                                                               | 47                                                                                | 100                                                                                 | 570                                                                                 | 49                                                                                  | 41                                                                                  | 1046                                                                                | 385                                                                                 |
| Future Volume (vph)     | 154                                                                               | 115                                                                               | 118                                                                               | 57                                                                                | 233                                                                               | 47                                                                                | 100                                                                                 | 570                                                                                 | 49                                                                                  | 41                                                                                  | 1046                                                                                | 385                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                   | 135                                                                               | 135                                                                               |                                                                                   | 260                                                                               | 140                                                                                 |                                                                                     | 0                                                                                   | 210                                                                                 |                                                                                     | 220                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                   |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 210                                                                               |                                                                                   |                                                                                   | 110                                                                               |                                                                                   |                                                                                   | 110                                                                                 |                                                                                     |                                                                                     | 140                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 4512                                                                              |                                                                                   |                                                                                   | 1444                                                                              |                                                                                   |                                                                                     | 671                                                                                 |                                                                                     |                                                                                     | 1610                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                   | 19.7                                                                              |                                                                                   |                                                                                     | 8.3                                                                                 |                                                                                     |                                                                                     | 20.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Adj. Flow (vph)         | 169                                                                               | 126                                                                               | 130                                                                               | 63                                                                                | 256                                                                               | 52                                                                                | 110                                                                                 | 626                                                                                 | 54                                                                                  | 45                                                                                  | 1149                                                                                | 423                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 169                                                                               | 126                                                                               | 130                                                                               | 63                                                                                | 256                                                                               | 52                                                                                | 110                                                                                 | 680                                                                                 | 0                                                                                   | 45                                                                                  | 1149                                                                                | 423                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 5: Cook St. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
5: Cook St. & Frank Sinatra Dr.

Existing (2022) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 154                                                                               | 115                                                                               | 118                                                                               | 57                                                                                | 233                                                                               | 47                                                                                | 100                                                                                 | 570                                                                                 | 49                                                                                  | 41                                                                                  | 1046                                                                                | 385                                                                                 |
| Future Volume (veh/h)        | 154                                                                               | 115                                                                               | 118                                                                               | 57                                                                                | 233                                                                               | 47                                                                                | 100                                                                                 | 570                                                                                 | 49                                                                                  | 41                                                                                  | 1046                                                                                | 385                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 169                                                                               | 126                                                                               | 130                                                                               | 63                                                                                | 256                                                                               | 52                                                                                | 110                                                                                 | 626                                                                                 | 54                                                                                  | 45                                                                                  | 1149                                                                                | 423                                                                                 |
| Peak Hour Factor             | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 271                                                                               | 550                                                                               | 243                                                                               | 187                                                                               | 464                                                                               | 205                                                                               | 242                                                                                 | 1535                                                                                | 132                                                                                 | 152                                                                                 | 2235                                                                                | 691                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.15                                                                              | 0.15                                                                              | 0.05                                                                              | 0.13                                                                              | 0.13                                                                              | 0.07                                                                                | 0.46                                                                                | 0.46                                                                                | 0.09                                                                                | 0.88                                                                                | 0.88                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1570                                                                              | 3456                                                                              | 3554                                                                              | 1567                                                                              | 3456                                                                                | 3310                                                                                | 285                                                                                 | 3456                                                                                | 5106                                                                                | 1580                                                                                |
| Grp Volume(v), veh/h         | 169                                                                               | 126                                                                               | 130                                                                               | 63                                                                                | 256                                                                               | 52                                                                                | 110                                                                                 | 336                                                                                 | 344                                                                                 | 45                                                                                  | 1149                                                                                | 423                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1570                                                                              | 1728                                                                              | 1777                                                                              | 1567                                                                              | 1728                                                                                | 1777                                                                                | 1818                                                                                | 1728                                                                                | 1702                                                                                | 1580                                                                                |
| Q Serve(g_s), s              | 2.8                                                                               | 1.9                                                                               | 4.6                                                                               | 1.1                                                                               | 4.0                                                                               | 1.8                                                                               | 1.8                                                                                 | 7.5                                                                                 | 7.5                                                                                 | 0.7                                                                                 | 3.1                                                                                 | 4.3                                                                                 |
| Cycle Q Clear(g_c), s        | 2.8                                                                               | 1.9                                                                               | 4.6                                                                               | 1.1                                                                               | 4.0                                                                               | 1.8                                                                               | 1.8                                                                                 | 7.5                                                                                 | 7.5                                                                                 | 0.7                                                                                 | 3.1                                                                                 | 4.3                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.16                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 271                                                                               | 550                                                                               | 243                                                                               | 187                                                                               | 464                                                                               | 205                                                                               | 242                                                                                 | 824                                                                                 | 843                                                                                 | 152                                                                                 | 2235                                                                                | 691                                                                                 |
| V/C Ratio(X)                 | 0.62                                                                              | 0.23                                                                              | 0.54                                                                              | 0.34                                                                              | 0.55                                                                              | 0.25                                                                              | 0.45                                                                                | 0.41                                                                                | 0.41                                                                                | 0.30                                                                                | 0.51                                                                                | 0.61                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                               | 948                                                                               | 418                                                                               | 288                                                                                 | 824                                                                                 | 843                                                                                 | 288                                                                                 | 2235                                                                                | 691                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Uniform Delay (d), s/veh     | 26.8                                                                              | 22.2                                                                              | 23.4                                                                              | 27.3                                                                              | 24.4                                                                              | 23.5                                                                              | 26.8                                                                                | 10.6                                                                                | 10.6                                                                                | 26.5                                                                                | 2.3                                                                                 | 2.4                                                                                 |
| Incr Delay (d2), s/veh       | 3.5                                                                               | 0.2                                                                               | 1.7                                                                               | 1.1                                                                               | 1.0                                                                               | 0.6                                                                               | 1.3                                                                                 | 1.5                                                                                 | 1.5                                                                                 | 1.0                                                                                 | 0.8                                                                                 | 3.8                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.2                                                                               | 0.7                                                                               | 1.6                                                                               | 0.4                                                                               | 1.5                                                                               | 0.6                                                                               | 0.7                                                                                 | 2.4                                                                                 | 2.4                                                                                 | 0.3                                                                                 | 0.6                                                                                 | 1.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 30.3                                                                              | 22.4                                                                              | 25.1                                                                              | 28.4                                                                              | 25.5                                                                              | 24.1                                                                              | 28.1                                                                                | 12.1                                                                                | 12.1                                                                                | 27.5                                                                                | 3.1                                                                                 | 6.1                                                                                 |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 425                                                                               |                                                                                   |                                                                                   | 371                                                                               |                                                                                   |                                                                                     | 790                                                                                 |                                                                                     |                                                                                     | 1617                                                                                |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 26.4                                                                              |                                                                                   |                                                                                   | 25.8                                                                              |                                                                                   |                                                                                     | 14.3                                                                                |                                                                                     |                                                                                     | 4.6                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.1                                                                               | 31.8                                                                              | 7.8                                                                               | 13.3                                                                              | 8.7                                                                               | 30.3                                                                              | 9.2                                                                                 | 11.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.7                                                                               | 9.5                                                                               | 3.1                                                                               | 6.6                                                                               | 3.8                                                                               | 6.3                                                                               | 4.8                                                                                 | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 0.7                                                                               | 0.0                                                                               | 6.1                                                                               | 0.0                                                                                 | 1.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 12.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
6: Portola Av. & Retreat Circ. (N)

Existing (2022) AM Peak Hour

|                         |  |  |                                                                                                                                                                      |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |    |  |  |   |
| Traffic Volume (vph)    | 0                                                                                 | 9                                                                                 | 537                                                                                                                                                                                                                                                   | 4                                                                                 | 3                                                                                 | 572                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 9                                                                                 | 537                                                                                                                                                                                                                                                   | 4                                                                                 | 3                                                                                 | 572                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 217                                                                               |                                                                                   | 282                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 254                                                                                                                                                                 |
| Travel Time (s)         | 4.9                                                                               |                                                                                   | 3.5                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 3.1                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.84                                                                              | 0.84                                                                              | 0.84                                                                                                                                                                                                                                                  | 0.84                                                                              | 0.84                                                                              | 0.84                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 11                                                                                | 639                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 681                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 11                                                                                | 639                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 681                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
6: Portola Av. & Retreat Circ. (N)

Existing (2022) AM Peak Hour

| Intersection             |        |          |      |        |      |      |
|--------------------------|--------|----------|------|--------|------|------|
| Int Delay, s/veh         | 0.1    |          |      |        |      |      |
| Movement                 | WBL    | WBR      | NBT  | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗        | ↗↗↗  | ↗      | ↗    | ↗↗   |
| Traffic Vol, veh/h       | 0      | 9        | 537  | 4      | 3    | 572  |
| Future Vol, veh/h        | 0      | 9        | 537  | 4      | 3    | 572  |
| Conflicting Peds, #/hr   | 5      | 5        | 0    | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free | Free   | Free | Free |
| RT Channelized           | -      | None     | -    | None   | -    | None |
| Storage Length           | -      | -        | -    | 150    | 150  | -    |
| Veh in Median Storage, # | 0      | -        | 0    | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0    | -      | -    | 0    |
| Peak Hour Factor         | 84     | 84       | 84   | 84     | 84   | 84   |
| Heavy Vehicles, %        | 2      | 2        | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 11       | 639  | 5      | 4    | 681  |
| Major/Minor              | Minor1 | Major1   |      | Major2 |      |      |
| Conflicting Flow All     | -      | 330      | 0    | 0      | 649  | 0    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -    | -      | 5.34 | -    |
| Critical Hdwy Stg 1      | -      | -        | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -    | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -    | -      | 3.12 | -    |
| Pot Cap-1 Maneuver       | 0      | 568      | -    | -      | 576  | -    |
| Stage 1                  | 0      | -        | -    | -      | -    | -    |
| Stage 2                  | 0      | -        | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -        | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 563      | -    | -      | 573  | -    |
| Mov Cap-2 Maneuver       | -      | -        | -    | -      | -    | -    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Approach                 | WB     | NB       |      | SB     |      |      |
| HCM Control Delay, s     | 11.5   | 0        |      | 0.1    |      |      |
| HCM LOS                  | B      |          |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |      | SBL    | SBT  |      |
| Capacity (veh/h)         | -      | - 563    |      | 573    | -    |      |
| HCM Lane V/C Ratio       | -      | - 0.019  |      | 0.006  | -    |      |
| HCM Control Delay (s)    | -      | - 11.5   |      | 11.3   | -    |      |
| HCM Lane LOS             | -      | - B      |      | B      | -    |      |
| HCM 95th %tile Q(veh)    | -      | - 0.1    |      | 0      | -    |      |

Lanes, Volumes, Timings  
7: Portola Av. & Retreat Circ. (S)

Existing (2022) AM Peak Hour

|                         |  |  |                                                                                                                                                                                                                                                        |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                                                                                                     | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |     |                                                                                   |                                                                                   |   |
| Traffic Volume (vph)    | 0                                                                                 | 1                                                                                 | 540                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 572                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 1                                                                                 | 540                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 572                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                                                                                                    | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                                                                                                         | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 243                                                                               |                                                                                   | 194                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 417                                                                                                                                                                 |
| Travel Time (s)         | 5.5                                                                               |                                                                                   | 2.4                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 5.2                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                                                                                                                                                                                    | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 1                                                                                 | 628                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 665                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 1                                                                                 | 629                                                                                                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 665                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
7: Portola Av. & Retreat Circ. (S)

Existing (2022) AM Peak Hour

| Intersection             |        |          |         |        |      |      |
|--------------------------|--------|----------|---------|--------|------|------|
| Int Delay, s/veh         | 0      |          |         |        |      |      |
| Movement                 | WBL    | WBR      | NBT     | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗ ↘ ↘ ↘  | ↗ ↘ ↘ ↘ |        |      | ↗ ↘  |
| Traffic Vol, veh/h       | 0      | 1        | 540     | 1      | 0    | 572  |
| Future Vol, veh/h        | 0      | 1        | 540     | 1      | 0    | 572  |
| Conflicting Peds, #/hr   | 5      | 5        | 0       | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free    | Free   | Free | Free |
| RT Channelized           | -      | None     | -       | None   | -    | None |
| Storage Length           | -      | -        | -       | -      | -    | -    |
| Veh in Median Storage, # | 0      | -        | 0       | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0       | -      | -    | 0    |
| Peak Hour Factor         | 86     | 86       | 86      | 86     | 86   | 86   |
| Heavy Vehicles, %        | 2      | 2        | 2       | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 1        | 628     | 1      | 0    | 665  |
| Major/Minor              | Minor1 | Major1   |         | Major2 |      |      |
| Conflicting Flow All     | -      | 325      | 0       | 0      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -       | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -        | -       | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -       | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -       | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 572      | -       | -      | 0    | -    |
| Stage 1                  | 0      | -        | -       | -      | 0    | -    |
| Stage 2                  | 0      | -        | -       | -      | 0    | -    |
| Platoon blocked, %       | -      | -        | -       | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 567      | -       | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -        | -       | -      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Approach                 | WB     | NB       |         | SB     |      |      |
| HCM Control Delay, s     | 11.4   | 0        |         | 0      |      |      |
| HCM LOS                  | B      |          |         |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |         | SBT    |      |      |
| Capacity (veh/h)         | -      | 567      |         | -      |      |      |
| HCM Lane V/C Ratio       | -      | 0.002    |         | -      |      |      |
| HCM Control Delay (s)    | -      | 11.4     |         | -      |      |      |
| HCM Lane LOS             | -      | B        |         | -      |      |      |
| HCM 95th %tile Q(veh)    | -      | 0        |         | -      |      |      |

Lanes, Volumes, Timings  
8: Portola Av. & Willow Ridge

Existing (2022) AM Peak Hour

|                         |  |  |                                                                                    |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                 | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |  |  |   |  |  |   |
| Traffic Volume (vph)    | 31                                                                                | 20                                                                                | 516                                                                                                                                                                 | 28                                                                                | 33                                                                                | 550                                                                                                                                                                 |
| Future Volume (vph)     | 31                                                                                | 20                                                                                | 516                                                                                                                                                                 | 28                                                                                | 33                                                                                | 550                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 0                                                                                 | 50                                                                                |                                                                                                                                                                     | 150                                                                               | 100                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                     |                                                                                   | 60                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                  |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 309                                                                               |                                                                                   | 2578                                                                                                                                                                |                                                                                   |                                                                                   | 801                                                                                                                                                                 |
| Travel Time (s)         | 7.0                                                                               |                                                                                   | 32.0                                                                                                                                                                |                                                                                   |                                                                                   | 9.9                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                |
| Adj. Flow (vph)         | 36                                                                                | 23                                                                                | 600                                                                                                                                                                 | 33                                                                                | 38                                                                                | 640                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 36                                                                                | 23                                                                                | 600                                                                                                                                                                 | 33                                                                                | 38                                                                                | 640                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
8: Portola Av. & Willow Ridge

Existing (2022) AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.9                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 31                                                                                | 20                                                                                | 516                                                                               | 28                                                                                | 33                                                                                | 550                                                                               |
| Future Vol, veh/h        | 31                                                                                | 20                                                                                | 516                                                                               | 28                                                                                | 33                                                                                | 550                                                                               |
| Conflicting Peds, #/hr   | 5                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 50                                                                                | -                                                                                 | 150                                                                               | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 36                                                                                | 23                                                                                | 600                                                                               | 33                                                                                | 38                                                                                | 640                                                                               |
| Major/Minor              | Minor1                                                                            | Major1                                                                            | Major2                                                                            |                                                                                   |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1006                                                                              | 310                                                                               | 0                                                                                 | 0                                                                                 | 638                                                                               | 0                                                                                 |
| Stage 1                  | 605                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 401                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| 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       | 238                                                                               | 686                                                                               | -                                                                                 | -                                                                                 | 942                                                                               | -                                                                                 |
| Stage 1                  | 508                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 645                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 226                                                                               | 679                                                                               | -                                                                                 | -                                                                                 | 938                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver       | 355                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 505                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 615                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB                                                                                | SB                                                                                |                                                                                   |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 14                                                                                | 0                                                                                 | 0.5                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT                                                                               |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | - 355 679                                                                         | 938                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | - 0.102 0.034                                                                     | 0.041                                                                             | -                                                                                 |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | - 16.3 10.5                                                                       | 9                                                                                 | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane LOS             | -                                                                                 | - C B                                                                             | A                                                                                 | -                                                                                 |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | - 0.3 0.1                                                                         | 0.1                                                                               | -                                                                                 |                                                                                   |                                                                                   |

Lanes, Volumes, Timings  
9: Portola Av. & Country Club Dr.

Existing (2022) AM Peak Hour

|                         |  |  |  |  |  |  |   |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 40                                                                                | 358                                                                               | 151                                                                               | 160                                                                               | 685                                                                               | 82                                                                                | 198                                                                                 | 407                                                                                 | 134                                                                                 | 65                                                                                  | 417                                                                                 | 40                                                                                  |
| Future Volume (vph)     | 40                                                                                | 358                                                                               | 151                                                                               | 160                                                                               | 685                                                                               | 82                                                                                | 198                                                                                 | 407                                                                                 | 134                                                                                 | 65                                                                                  | 417                                                                                 | 40                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 200                                                                               |                                                                                   | 105                                                                               | 180                                                                               |                                                                                   | 80                                                                                | 160                                                                                 |                                                                                     | 135                                                                                 | 200                                                                                 |                                                                                     | 50                                                                                  |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 100                                                                                 |                                                                                     |                                                                                     | 60                                                                                  |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1030                                                                              |                                                                                   |                                                                                   | 784                                                                               |                                                                                   |                                                                                     | 945                                                                                 |                                                                                     |                                                                                     | 2578                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   | 10.7                                                                              |                                                                                   |                                                                                     | 11.7                                                                                |                                                                                     |                                                                                     | 32.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                |
| Adj. Flow (vph)         | 47                                                                                | 421                                                                               | 178                                                                               | 188                                                                               | 806                                                                               | 96                                                                                | 233                                                                                 | 479                                                                                 | 158                                                                                 | 76                                                                                  | 491                                                                                 | 47                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 47                                                                                | 421                                                                               | 178                                                                               | 188                                                                               | 806                                                                               | 96                                                                                | 233                                                                                 | 479                                                                                 | 158                                                                                 | 76                                                                                  | 491                                                                                 | 47                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 14.0                                                                              | 29.0                                                                              | 29.0                                                                              | 27.0                                                                              | 42.0                                                                              | 42.0                                                                              | 32.0                                                                                | 47.0                                                                                | 47.0                                                                                | 17.0                                                                                | 32.0                                                                                | 32.0                                                                                |
| Total Split (%)         | 11.7%                                                                             | 24.2%                                                                             | 24.2%                                                                             | 22.5%                                                                             | 35.0%                                                                             | 35.0%                                                                             | 26.7%                                                                               | 39.2%                                                                               | 39.2%                                                                               | 14.2%                                                                               | 26.7%                                                                               | 26.7%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 120

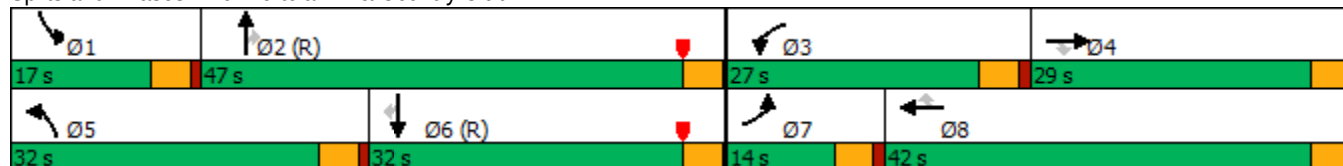
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 9: Portola Av. & Country Club Dr.



HCM 6th Signalized Intersection Summary  
9: Portola Av. & Country Club Dr.

Existing (2022) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |    |  |  |  |  |
| Traffic Volume (veh/h)       | 40                                                                                | 358                                                                               | 151                                                                               | 160                                                                               | 685                                                                               | 82                                                                                | 198                                                                                | 407                                                                                 | 134                                                                                 | 65                                                                                  | 417                                                                                 | 40                                                                                  |
| Future Volume (veh/h)        | 40                                                                                | 358                                                                               | 151                                                                               | 160                                                                               | 685                                                                               | 82                                                                                | 198                                                                                | 407                                                                                 | 134                                                                                 | 65                                                                                  | 417                                                                                 | 40                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                               | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 47                                                                                | 421                                                                               | 178                                                                               | 188                                                                               | 806                                                                               | 96                                                                                | 233                                                                                | 479                                                                                 | 158                                                                                 | 76                                                                                  | 491                                                                                 | 47                                                                                  |
| Peak Hour Factor             | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                               | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 61                                                                                | 624                                                                               | 276                                                                               | 218                                                                               | 937                                                                               | 416                                                                               | 264                                                                                | 1798                                                                                | 800                                                                                 | 97                                                                                  | 1465                                                                                | 651                                                                                 |
| Arrive On Green              | 0.03                                                                              | 0.18                                                                              | 0.18                                                                              | 0.12                                                                              | 0.26                                                                              | 0.26                                                                              | 0.15                                                                               | 0.51                                                                                | 0.51                                                                                | 0.05                                                                                | 0.41                                                                                | 0.41                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1572                                                                              | 1781                                                                              | 3554                                                                              | 1576                                                                              | 1781                                                                               | 3554                                                                                | 1580                                                                                | 1781                                                                                | 3554                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 47                                                                                | 421                                                                               | 178                                                                               | 188                                                                               | 806                                                                               | 96                                                                                | 233                                                                                | 479                                                                                 | 158                                                                                 | 76                                                                                  | 491                                                                                 | 47                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1572                                                                              | 1781                                                                              | 1777                                                                              | 1576                                                                              | 1781                                                                               | 1777                                                                                | 1580                                                                                | 1781                                                                                | 1777                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 3.1                                                                               | 13.3                                                                              | 12.6                                                                              | 12.4                                                                              | 25.9                                                                              | 5.7                                                                               | 15.4                                                                               | 9.2                                                                                 | 6.6                                                                                 | 5.1                                                                                 | 11.3                                                                                | 2.2                                                                                 |
| Cycle Q Clear(g_c), s        | 3.1                                                                               | 13.3                                                                              | 12.6                                                                              | 12.4                                                                              | 25.9                                                                              | 5.7                                                                               | 15.4                                                                               | 9.2                                                                                 | 6.6                                                                                 | 5.1                                                                                 | 11.3                                                                                | 2.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 61                                                                                | 624                                                                               | 276                                                                               | 218                                                                               | 937                                                                               | 416                                                                               | 264                                                                                | 1798                                                                                | 800                                                                                 | 97                                                                                  | 1465                                                                                | 651                                                                                 |
| V/C Ratio(X)                 | 0.78                                                                              | 0.68                                                                              | 0.65                                                                              | 0.86                                                                              | 0.86                                                                              | 0.23                                                                              | 0.88                                                                               | 0.27                                                                                | 0.20                                                                                | 0.78                                                                                | 0.34                                                                                | 0.07                                                                                |
| Avail Cap(c_a), veh/h        | 141                                                                               | 740                                                                               | 327                                                                               | 334                                                                               | 1125                                                                              | 499                                                                               | 408                                                                                | 1798                                                                                | 800                                                                                 | 186                                                                                 | 1465                                                                                | 651                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 57.5                                                                              | 46.3                                                                              | 46.0                                                                              | 51.7                                                                              | 42.1                                                                              | 34.6                                                                              | 50.1                                                                               | 16.9                                                                                | 16.3                                                                                | 56.0                                                                                | 24.1                                                                                | 21.4                                                                                |
| Incr Delay (d2), s/veh       | 18.7                                                                              | 1.9                                                                               | 3.3                                                                               | 13.4                                                                              | 6.0                                                                               | 0.3                                                                               | 13.3                                                                               | 0.4                                                                                 | 0.6                                                                                 | 12.7                                                                                | 0.6                                                                                 | 0.2                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.7                                                                               | 5.8                                                                               | 5.0                                                                               | 6.2                                                                               | 11.6                                                                              | 2.2                                                                               | 7.5                                                                                | 3.5                                                                                 | 2.3                                                                                 | 2.5                                                                                 | 4.6                                                                                 | 0.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 76.2                                                                              | 48.2                                                                              | 49.3                                                                              | 65.1                                                                              | 48.0                                                                              | 34.9                                                                              | 63.4                                                                               | 17.3                                                                                | 16.8                                                                                | 68.7                                                                                | 24.7                                                                                | 21.6                                                                                |
| LnGrp LOS                    | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | D                                                                                 | C                                                                                 | E                                                                                  | B                                                                                   | B                                                                                   | E                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 646                                                                               |                                                                                   |                                                                                   | 1090                                                                              |                                                                                   |                                                                                   | 870                                                                                |                                                                                     |                                                                                     | 614                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 50.5                                                                              |                                                                                   |                                                                                   | 49.8                                                                              |                                                                                   |                                                                                   | 29.5                                                                               |                                                                                     |                                                                                     | 29.9                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                  |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                  | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 11.0                                                                              | 64.7                                                                              | 19.2                                                                              | 25.1                                                                              | 22.3                                                                              | 53.5                                                                              | 8.6                                                                                | 35.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 12.5                                                                              | 43.0                                                                              | 22.5                                                                              | 25.0                                                                              | 27.5                                                                              | 28.0                                                                              | 9.5                                                                                | 38.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 7.1                                                                               | 11.2                                                                              | 14.4                                                                              | 15.3                                                                              | 17.4                                                                              | 13.3                                                                              | 5.1                                                                                | 27.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 3.4                                                                               | 0.3                                                                               | 2.1                                                                               | 0.4                                                                               | 2.5                                                                               | 0.0                                                                                | 3.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 40.7                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
11: Cook St. & University Park Dr./Berger Dr.

Existing (2022) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (vph)    | 31                                                                                | 0                                                                                 | 17                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 751                                                                                 | 10                                                                                  | 47                                                                                  | 1452                                                                                | 15                                                                                  |
| Future Volume (vph)     | 31                                                                                | 0                                                                                 | 17                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 751                                                                                 | 10                                                                                  | 47                                                                                  | 1452                                                                                | 15                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 180                                                                               |                                                                                   | 180                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 140                                                                                 |                                                                                     | 140                                                                                 | 225                                                                                 |                                                                                     | 295                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 160                                                                                 |                                                                                     |                                                                                     | 165                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 460                                                                               |                                                                                   |                                                                                     | 1610                                                                                |                                                                                     |                                                                                     | 602                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 10.2                                                                              |                                                                                   |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                     | 20.0                                                                                |                                                                                     |                                                                                     | 7.5                                                                                 |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 34                                                                                | 0                                                                                 | 19                                                                                | 3                                                                                 | 1                                                                                 | 11                                                                                | 11                                                                                  | 834                                                                                 | 11                                                                                  | 52                                                                                  | 1613                                                                                | 17                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 34                                                                                | 0                                                                                 | 19                                                                                | 3                                                                                 | 1                                                                                 | 11                                                                                | 11                                                                                  | 834                                                                                 | 11                                                                                  | 52                                                                                  | 1613                                                                                | 17                                                                                  |
| Turn Type               | Prot                                                                              |                                                                                   | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 11: Cook St. & University Park Dr./Berger Dr.

|                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |
| Ø1                                                                                  | Ø2 (R)                                                                              | Ø3                                                                                  | Ø4                                                                                    |
| 9.5 s                                                                               | 21 s                                                                                | 9.5 s                                                                               | 20 s                                                                                  |
|  |  |  |  |
| Ø5                                                                                  | Ø6 (R)                                                                              | Ø7                                                                                  | Ø8                                                                                    |
| 9.5 s                                                                               | 21 s                                                                                | 9.5 s                                                                               | 20 s                                                                                  |

# HCM 6th Signalized Intersection Summary 11: Cook St. & University Park Dr./Berger Dr.

Existing (2022) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 31                                                                                | 0                                                                                 | 17                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 751                                                                                 | 10                                                                                  | 47                                                                                  | 1452                                                                                | 15                                                                                  |
| Future Volume (veh/h)        | 31                                                                                | 0                                                                                 | 17                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 751                                                                                 | 10                                                                                  | 47                                                                                  | 1452                                                                                | 15                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 34                                                                                | 0                                                                                 | 19                                                                                | 3                                                                                 | 1                                                                                 | 0                                                                                 | 11                                                                                  | 834                                                                                 | 0                                                                                   | 52                                                                                  | 1613                                                                                | 17                                                                                  |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 64                                                                                | 137                                                                               | 114                                                                               | 7                                                                                 | 77                                                                                |                                                                                   | 25                                                                                  | 3018                                                                                |                                                                                     | 167                                                                                 | 3194                                                                                | 987                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.00                                                                              | 0.07                                                                              | 0.00                                                                              | 0.04                                                                              | 0.00                                                                              | 0.03                                                                                | 1.00                                                                                | 0.00                                                                                | 0.05                                                                                | 0.63                                                                                | 0.63                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 1870                                                                              | 1553                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 5106                                                                                | 1585                                                                                | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 34                                                                                | 0                                                                                 | 19                                                                                | 3                                                                                 | 1                                                                                 | 0                                                                                 | 11                                                                                  | 834                                                                                 | 0                                                                                   | 52                                                                                  | 1613                                                                                | 17                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1870                                                                              | 1553                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 1702                                                                                | 1585                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 1.1                                                                               | 0.0                                                                               | 0.7                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 10.4                                                                                | 0.2                                                                                 |
| Cycle Q Clear(g_c), s        | 1.1                                                                               | 0.0                                                                               | 0.7                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 10.4                                                                                | 0.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 64                                                                                | 137                                                                               | 114                                                                               | 7                                                                                 | 77                                                                                |                                                                                   | 25                                                                                  | 3018                                                                                |                                                                                     | 167                                                                                 | 3194                                                                                | 987                                                                                 |
| V/C Ratio(X)                 | 0.53                                                                              | 0.00                                                                              | 0.17                                                                              | 0.41                                                                              | 0.01                                                                              |                                                                                   | 0.44                                                                                | 0.28                                                                                |                                                                                     | 0.31                                                                                | 0.51                                                                                | 0.02                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 499                                                                               | 414                                                                               | 148                                                                               | 499                                                                               |                                                                                   | 148                                                                                 | 3018                                                                                |                                                                                     | 288                                                                                 | 3194                                                                                | 987                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.92                                                                                | 0.92                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 28.4                                                                              | 0.0                                                                               | 26.1                                                                              | 29.8                                                                              | 27.6                                                                              | 0.0                                                                               | 28.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 27.6                                                                                | 6.2                                                                                 | 4.3                                                                                 |
| Incr Delay (d2), s/veh       | 6.6                                                                               | 0.0                                                                               | 0.7                                                                               | 33.7                                                                              | 0.1                                                                               | 0.0                                                                               | 10.9                                                                                | 0.2                                                                                 | 0.0                                                                                 | 1.1                                                                                 | 0.6                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.6                                                                               | 0.0                                                                               | 0.3                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 1.9                                                                                 | 0.1                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 35.0                                                                              | 0.0                                                                               | 26.8                                                                              | 63.5                                                                              | 27.7                                                                              | 0.0                                                                               | 39.9                                                                                | 0.2                                                                                 | 0.0                                                                                 | 28.6                                                                                | 6.7                                                                                 | 4.3                                                                                 |
| LnGrp LOS                    | D                                                                                 | A                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 |                                                                                   | D                                                                                   | A                                                                                   |                                                                                     | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 53                                                                                |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 845                                                                                 |                                                                                     |                                                                                     | 1682                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 32.1                                                                              |                                                                                   |                                                                                   | 54.5                                                                              |                                                                                   |                                                                                   | 0.7                                                                                 |                                                                                     |                                                                                     | 7.4                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.4                                                                               | 39.5                                                                              | 4.7                                                                               | 8.4                                                                               | 5.3                                                                               | 41.5                                                                              | 6.7                                                                                 | 6.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.9                                                                               | 2.0                                                                               | 2.1                                                                               | 2.7                                                                               | 2.4                                                                               | 12.4                                                                              | 3.1                                                                                 | 2.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 4.4                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.5                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## Intersection Summary

HCM 6th Ctrl Delay 5.8

HCM 6th LOS A

## Notes

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

Lanes, Volumes, Timings  
1: Monterey Av. & Frank Sinatra Dr.

Existing (2022) PM Peak Hour

|                         |                                                                                    |                                                                                    |  |                                                                                    |                                                                                    |  |                                                                                      |                                                                                                                                                                          |  |                                                                                      |                                                                                                                                                                          |  |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                                                                                                 | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                                                                                                                 | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                                                                                                     | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations     |   |   |  |   |   |  |   |    |                                                                                     |   |    |  |
| Traffic Volume (vph)    | 121                                                                                                                                                                 | 566                                                                                                                                                                 | 124                                                                               | 140                                                                                                                                                                 | 349                                                                                                                                                                 | 68                                                                                | 117                                                                                                                                                                     | 1219                                                                                                                                                                                                                                                        | 126                                                                                 | 89                                                                                                                                                                      | 990                                                                                                                                                                                                                                                         | 61                                                                                  |
| Future Volume (vph)     | 121                                                                                                                                                                 | 566                                                                                                                                                                 | 124                                                                               | 140                                                                                                                                                                 | 349                                                                                                                                                                 | 68                                                                                | 117                                                                                                                                                                     | 1219                                                                                                                                                                                                                                                        | 126                                                                                 | 89                                                                                                                                                                      | 990                                                                                                                                                                                                                                                         | 61                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                                                                                                    | 1900                                                                                                                                                                                                                                                        | 1900                                                                                | 1900                                                                                                                                                                    | 1900                                                                                                                                                                                                                                                        | 1900                                                                                |
| Storage Length (ft)     | 160                                                                                                                                                                 |                                                                                                                                                                     | 150                                                                               | 140                                                                                                                                                                 |                                                                                                                                                                     | 140                                                                               | 250                                                                                                                                                                     |                                                                                                                                                                                                                                                             | 150                                                                                 | 200                                                                                                                                                                     |                                                                                                                                                                                                                                                             | 175                                                                                 |
| Storage Lanes           | 2                                                                                                                                                                   |                                                                                                                                                                     | 1                                                                                 | 2                                                                                                                                                                   |                                                                                                                                                                     | 1                                                                                 | 2                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 0                                                                                   | 2                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 1                                                                                   |
| Taper Length (ft)       | 100                                                                                                                                                                 |                                                                                                                                                                     |                                                                                   | 120                                                                                                                                                                 |                                                                                                                                                                     |                                                                                   | 120                                                                                                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     | 120                                                                                                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Right Turn on Red       |                                                                                                                                                                     |                                                                                                                                                                     | Yes                                                                               |                                                                                                                                                                     |                                                                                                                                                                     | Yes                                                                               |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | Yes                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | Yes                                                                                 |
| Link Speed (mph)        |                                                                                                                                                                     | 50                                                                                                                                                                  |                                                                                   |                                                                                                                                                                     | 50                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 55                                                                                                                                                                                                                                                          |                                                                                     |                                                                                                                                                                         | 55                                                                                                                                                                                                                                                          |                                                                                     |
| Link Distance (ft)      |                                                                                                                                                                     | 1182                                                                                                                                                                |                                                                                   |                                                                                                                                                                     | 5371                                                                                                                                                                |                                                                                   |                                                                                                                                                                         | 1281                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                         | 1753                                                                                                                                                                                                                                                        |                                                                                     |
| Travel Time (s)         |                                                                                                                                                                     | 16.1                                                                                                                                                                |                                                                                   |                                                                                                                                                                     | 73.2                                                                                                                                                                |                                                                                   |                                                                                                                                                                         | 15.9                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                         | 21.7                                                                                                                                                                                                                                                        |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                                                                                                   |                                                                                                                                                                     | 5                                                                                 | 5                                                                                                                                                                   |                                                                                                                                                                     | 5                                                                                 | 5                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 5                                                                                   | 5                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 5                                                                                   |
| Peak Hour Factor        | 0.95                                                                                                                                                                | 0.95                                                                                                                                                                | 0.95                                                                              | 0.95                                                                                                                                                                | 0.95                                                                                                                                                                | 0.95                                                                              | 0.95                                                                                                                                                                    | 0.95                                                                                                                                                                                                                                                        | 0.95                                                                                | 0.95                                                                                                                                                                    | 0.95                                                                                                                                                                                                                                                        | 0.95                                                                                |
| Adj. Flow (vph)         | 127                                                                                                                                                                 | 596                                                                                                                                                                 | 131                                                                               | 147                                                                                                                                                                 | 367                                                                                                                                                                 | 72                                                                                | 123                                                                                                                                                                     | 1283                                                                                                                                                                                                                                                        | 133                                                                                 | 94                                                                                                                                                                      | 1042                                                                                                                                                                                                                                                        | 64                                                                                  |
| Shared Lane Traffic (%) |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |
| Lane Group Flow (vph)   | 127                                                                                                                                                                 | 596                                                                                                                                                                 | 131                                                                               | 147                                                                                                                                                                 | 367                                                                                                                                                                 | 72                                                                                | 123                                                                                                                                                                     | 1416                                                                                                                                                                                                                                                        | 0                                                                                   | 94                                                                                                                                                                      | 1042                                                                                                                                                                                                                                                        | 64                                                                                  |
| Turn Type               | Prot                                                                                                                                                                | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                                                                                                | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                                                                                                    | NA                                                                                                                                                                                                                                                          |                                                                                     | Prot                                                                                                                                                                    | NA                                                                                                                                                                                                                                                          | Perm                                                                                |
| Protected Phases        | 7                                                                                                                                                                   | 4                                                                                                                                                                   |                                                                                   | 3                                                                                                                                                                   | 8                                                                                                                                                                   |                                                                                   | 5                                                                                                                                                                       | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                                                                                                       | 6                                                                                                                                                                                                                                                           |                                                                                     |
| Permitted Phases        |                                                                                                                                                                     |                                                                                                                                                                     | 4                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 8                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | 6                                                                                   |
| Detector Phase          | 7                                                                                                                                                                   | 4                                                                                                                                                                   | 4                                                                                 | 3                                                                                                                                                                   | 8                                                                                                                                                                   | 8                                                                                 | 5                                                                                                                                                                       | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                                                                                                       | 6                                                                                                                                                                                                                                                           | 6                                                                                   |
| Switch Phase            |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         |                                                                                     | 5.0                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                     | 20.0                                                                                                                                                                                                                                                        |                                                                                     | 9.5                                                                                                                                                                     | 20.0                                                                                                                                                                                                                                                        | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                     | 21.0                                                                                                                                                                                                                                                        |                                                                                     | 9.5                                                                                                                                                                     | 21.0                                                                                                                                                                                                                                                        | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                                                                                                               | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                                                                                                               | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                                                                                                                   | 35.0%                                                                                                                                                                                                                                                       |                                                                                     | 15.8%                                                                                                                                                                   | 35.0%                                                                                                                                                                                                                                                       | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                                                                                                                 | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                                                                                                     | 3.5                                                                                                                                                                                                                                                         |                                                                                     | 3.5                                                                                                                                                                     | 3.5                                                                                                                                                                                                                                                         | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                                                                                                                 | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                                                                                                 | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                         |                                                                                     | 1.0                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                         | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                                                                                                                 | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                                                                                                         |                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         |                                                                                     | 4.5                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                                                                                                                | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                                                                                                | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                                                                                                         |                                                                                     | Lead                                                                                                                                                                    | Lag                                                                                                                                                                                                                                                         | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                                                                                                                 | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                         |                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                         | Yes                                                                                 |
| Recall Mode             | None                                                                                                                                                                | None                                                                                                                                                                | None                                                                              | None                                                                                                                                                                | None                                                                                                                                                                | None                                                                              | None                                                                                                                                                                    | C-Max                                                                                                                                                                                                                                                       |                                                                                     | None                                                                                                                                                                    | C-Max                                                                                                                                                                                                                                                       | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: Monterey Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
1: Monterey Av. & Frank Sinatra Dr.

Existing (2022) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (veh/h)       | 121                                                                               | 566                                                                               | 124                                                                               | 140                                                                               | 349                                                                               | 68                                                                                | 117                                                                                 | 1219                                                                                | 126                                                                                 | 89                                                                                  | 990                                                                                 | 61                                                                                  |
| Future Volume (veh/h)        | 121                                                                               | 566                                                                               | 124                                                                               | 140                                                                               | 349                                                                               | 68                                                                                | 117                                                                                 | 1219                                                                                | 126                                                                                 | 89                                                                                  | 990                                                                                 | 61                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 127                                                                               | 596                                                                               | 131                                                                               | 147                                                                               | 367                                                                               | 72                                                                                | 123                                                                                 | 1283                                                                                | 133                                                                                 | 94                                                                                  | 1042                                                                                | 64                                                                                  |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 253                                                                               | 789                                                                               | 349                                                                               | 263                                                                               | 799                                                                               | 354                                                                               | 251                                                                                 | 1657                                                                                | 172                                                                                 | 228                                                                                 | 1767                                                                                | 546                                                                                 |
| Arrive On Green              | 0.07                                                                              | 0.22                                                                              | 0.22                                                                              | 0.08                                                                              | 0.22                                                                              | 0.22                                                                              | 0.07                                                                                | 0.35                                                                                | 0.35                                                                                | 0.07                                                                                | 0.35                                                                                | 0.35                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1574                                                                              | 3456                                                                              | 3554                                                                              | 1574                                                                              | 3456                                                                                | 4697                                                                                | 487                                                                                 | 3456                                                                                | 5106                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 127                                                                               | 596                                                                               | 131                                                                               | 147                                                                               | 367                                                                               | 72                                                                                | 123                                                                                 | 930                                                                                 | 486                                                                                 | 94                                                                                  | 1042                                                                                | 64                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1574                                                                              | 1728                                                                              | 1777                                                                              | 1574                                                                              | 1728                                                                                | 1702                                                                                | 1780                                                                                | 1728                                                                                | 1702                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 2.1                                                                               | 9.4                                                                               | 4.2                                                                               | 2.5                                                                               | 5.4                                                                               | 2.2                                                                               | 2.1                                                                                 | 14.6                                                                                | 14.6                                                                                | 1.6                                                                                 | 10.1                                                                                | 1.7                                                                                 |
| Cycle Q Clear(g_c), s        | 2.1                                                                               | 9.4                                                                               | 4.2                                                                               | 2.5                                                                               | 5.4                                                                               | 2.2                                                                               | 2.1                                                                                 | 14.6                                                                                | 14.6                                                                                | 1.6                                                                                 | 10.1                                                                                | 1.7                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.27                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 253                                                                               | 789                                                                               | 349                                                                               | 263                                                                               | 799                                                                               | 354                                                                               | 251                                                                                 | 1200                                                                                | 628                                                                                 | 228                                                                                 | 1767                                                                                | 546                                                                                 |
| V/C Ratio(X)                 | 0.50                                                                              | 0.76                                                                              | 0.37                                                                              | 0.56                                                                              | 0.46                                                                              | 0.20                                                                              | 0.49                                                                                | 0.77                                                                                | 0.77                                                                                | 0.41                                                                                | 0.59                                                                                | 0.12                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                                 | 1200                                                                                | 628                                                                                 | 288                                                                                 | 1767                                                                                | 546                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 26.7                                                                              | 21.8                                                                              | 19.8                                                                              | 26.7                                                                              | 20.1                                                                              | 18.9                                                                              | 26.8                                                                                | 17.3                                                                                | 17.3                                                                                | 26.9                                                                                | 16.1                                                                                | 13.4                                                                                |
| Incr Delay (d2), s/veh       | 1.5                                                                               | 2.9                                                                               | 0.7                                                                               | 2.0                                                                               | 0.4                                                                               | 0.3                                                                               | 1.5                                                                                 | 4.9                                                                                 | 9.0                                                                                 | 1.2                                                                                 | 1.5                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.8                                                                               | 3.6                                                                               | 1.4                                                                               | 1.0                                                                               | 1.9                                                                               | 0.7                                                                               | 0.8                                                                                 | 5.2                                                                                 | 6.1                                                                                 | 0.6                                                                                 | 3.2                                                                                 | 0.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 28.3                                                                              | 24.7                                                                              | 20.5                                                                              | 28.7                                                                              | 20.5                                                                              | 19.2                                                                              | 28.2                                                                                | 22.2                                                                                | 26.3                                                                                | 28.1                                                                                | 17.6                                                                                | 13.8                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | B                                                                                 | C                                                                                   | C                                                                                   | C                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 854                                                                               |                                                                                   |                                                                                   | 586                                                                               |                                                                                   |                                                                                   | 1539                                                                                |                                                                                     |                                                                                     | 1200                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 24.6                                                                              |                                                                                   |                                                                                   | 22.4                                                                              |                                                                                   |                                                                                   | 24.0                                                                                |                                                                                     |                                                                                     | 18.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.5                                                                               | 25.2                                                                              | 9.1                                                                               | 17.3                                                                              | 8.9                                                                               | 24.8                                                                              | 8.9                                                                                 | 17.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.6                                                                               | 16.6                                                                              | 4.5                                                                               | 11.4                                                                              | 4.1                                                                               | 12.1                                                                              | 4.1                                                                                 | 7.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.3                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 2.7                                                                               | 0.0                                                                                 | 1.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 22.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
3: Frank Sinatra Dr. & Shepherd Ln.

Existing (2022) PM Peak Hour

|                             |  |                                                                                    |                                                                                    |  |  |  |
|-----------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group                  | EBL                                                                               | EBT                                                                                                                                                                 | WBT                                                                                                                                                                 | WBR                                                                               | SBL                                                                               | SBR                                                                               |
| Lane Configurations         |  |   |   |  |                                                                                   |  |
| Traffic Volume (vph)        | 40                                                                                | 667                                                                                                                                                                 | 484                                                                                                                                                                 | 41                                                                                | 0                                                                                 | 45                                                                                |
| Future Volume (vph)         | 40                                                                                | 667                                                                                                                                                                 | 484                                                                                                                                                                 | 41                                                                                | 0                                                                                 | 45                                                                                |
| Ideal Flow (vphpl)          | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Storage Length (ft)         | 140                                                                               |                                                                                                                                                                     |                                                                                                                                                                     | 50                                                                                | 150                                                                               | 150                                                                               |
| Storage Lanes               | 1                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 0                                                                                 |
| Taper Length (ft)           | 120                                                                               |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                   |
| Link Speed (mph)            |                                                                                   | 50                                                                                                                                                                  | 50                                                                                                                                                                  |                                                                                   | 30                                                                                |                                                                                   |
| Link Distance (ft)          |                                                                                   | 5371                                                                                                                                                                | 693                                                                                                                                                                 |                                                                                   | 810                                                                               |                                                                                   |
| Travel Time (s)             |                                                                                   | 73.2                                                                                                                                                                | 9.5                                                                                                                                                                 |                                                                                   | 18.4                                                                              |                                                                                   |
| Confl. Peds. (#/hr)         | 5                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 | 5                                                                                 |
| Peak Hour Factor            | 0.92                                                                              | 0.92                                                                                                                                                                | 0.92                                                                                                                                                                | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Adj. Flow (vph)             | 43                                                                                | 725                                                                                                                                                                 | 526                                                                                                                                                                 | 45                                                                                | 0                                                                                 | 49                                                                                |
| Shared Lane Traffic (%)     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)       | 43                                                                                | 725                                                                                                                                                                 | 526                                                                                                                                                                 | 45                                                                                | 0                                                                                 | 49                                                                                |
| Sign Control                |                                                                                   | Free                                                                                                                                                                | Free                                                                                                                                                                |                                                                                   | Stop                                                                              |                                                                                   |
| <b>Intersection Summary</b> |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |
| Area Type:                  | Other                                                                             |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |
| Control Type:               | Unsignalized                                                                      |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
3: Frank Sinatra Dr. & Shepherd Ln.

Existing (2022) PM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.6                                                                               |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBL   | SBR                                                                               |
| Lane Configurations      |  |  |  |  |       |  |
| Traffic Vol, veh/h       | 40                                                                                | 667                                                                               | 484                                                                               | 41                                                                                | 0     | 45                                                                                |
| Future Vol, veh/h        | 40                                                                                | 667                                                                               | 484                                                                               | 41                                                                                | 0     | 45                                                                                |
| Conflicting Peds, #/hr   | 5                                                                                 | 0                                                                                 | 0                                                                                 | 5                                                                                 | 5     | 5                                                                                 |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Stop  | Stop                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -     | None                                                                              |
| Storage Length           | 140                                                                               | -                                                                                 | -                                                                                 | 50                                                                                | -     | -                                                                                 |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                | 92    | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2     | 2                                                                                 |
| Mvmt Flow                | 43                                                                                | 725                                                                               | 526                                                                               | 45                                                                                | 0     | 49                                                                                |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2                                                                            |       |                                                                                   |
| Conflicting Flow All     | 576                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | 273                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -     | 6.94                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -     | 3.32                                                                              |
| Pot Cap-1 Maneuver       | 993                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | 0     | 725                                                                               |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | 0     | -                                                                                 |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |       |                                                                                   |
| Mov Cap-1 Maneuver       | 988                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -     | 718                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                 |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB                                                                                |       |                                                                                   |
| HCM Control Delay, s     | 0.5                                                                               | 0                                                                                 |                                                                                   | 10.4                                                                              |       |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
|                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                   |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR                                                                               | SBLn1 |                                                                                   |
| Capacity (veh/h)         | 988                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -     | 718                                                                               |
| HCM Lane V/C Ratio       | 0.044                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -     | 0.068                                                                             |
| HCM Control Delay (s)    | 8.8                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -     | 10.4                                                                              |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | B                                                                                 |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -     | 0.2                                                                               |

Lanes, Volumes, Timings  
4: Portola Av. & Frank Sinatra Dr.

Existing (2022) PM Peak Hour

|                         |  |  |  |  |  |  |   |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 12                                                                                | 573                                                                               | 82                                                                                | 90                                                                                | 354                                                                               | 13                                                                                | 143                                                                                 | 415                                                                                 | 100                                                                                 | 67                                                                                  | 280                                                                                 | 28                                                                                  |
| Future Volume (vph)     | 12                                                                                | 573                                                                               | 82                                                                                | 90                                                                                | 354                                                                               | 13                                                                                | 143                                                                                 | 415                                                                                 | 100                                                                                 | 67                                                                                  | 280                                                                                 | 28                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 120                                                                               |                                                                                   | 230                                                                               | 140                                                                               |                                                                                   | 100                                                                               | 260                                                                                 |                                                                                     | 50                                                                                  | 180                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 120                                                                                 |                                                                                     |                                                                                     | 190                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 693                                                                               |                                                                                   |                                                                                   | 4512                                                                              |                                                                                   |                                                                                     | 510                                                                                 |                                                                                     |                                                                                     | 1159                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 9.5                                                                               |                                                                                   |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                     | 6.3                                                                                 |                                                                                     |                                                                                     | 14.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Adj. Flow (vph)         | 13                                                                                | 610                                                                               | 87                                                                                | 96                                                                                | 377                                                                               | 14                                                                                | 152                                                                                 | 441                                                                                 | 106                                                                                 | 71                                                                                  | 298                                                                                 | 30                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 13                                                                                | 610                                                                               | 87                                                                                | 96                                                                                | 377                                                                               | 14                                                                                | 152                                                                                 | 441                                                                                 | 106                                                                                 | 71                                                                                  | 328                                                                                 | 0                                                                                   |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 10.4                                                                                | 20.9                                                                                | 20.9                                                                                | 9.6                                                                                 | 20.1                                                                                |                                                                                     |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 17.3%                                                                               | 34.8%                                                                               | 34.8%                                                                               | 16.0%                                                                               | 33.5%                                                                               |                                                                                     |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |                                                                                     |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 4: Portola Av. & Frank Sinatra Dr.

|                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |
| Ø1                                                                                  | Ø2 (R)                                                                              | Ø3                                                                                  | Ø4                                                                                    |
| 9.6 s                                                                               | 20.9 s                                                                              | 9.5 s                                                                               | 20 s                                                                                  |
|  |  |  |  |
| Ø5                                                                                  | Ø6 (R)                                                                              | Ø7                                                                                  | Ø8                                                                                    |
| 10.4 s                                                                              | 20.1 s                                                                              | 9.5 s                                                                               | 20 s                                                                                  |

# HCM 6th Signalized Intersection Summary 4: Portola Av. & Frank Sinatra Dr.

Existing (2022) PM Peak Hour

|                              |  |                                                                                    |  |  |                                                                                    |  |  |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (veh/h)       | 12                                                                                | 573                                                                                                                                                                 | 82                                                                                | 90                                                                                | 354                                                                                                                                                                 | 13                                                                                | 143                                                                                 | 415                                                                                                                                                                                                                                                         | 100                                                                                 | 67                                                                                  | 280                                                                                                                                                                                                                                                         | 28                                                                                  |
| Future Volume (veh/h)        | 12                                                                                | 573                                                                                                                                                                 | 82                                                                                | 90                                                                                | 354                                                                                                                                                                 | 13                                                                                | 143                                                                                 | 415                                                                                                                                                                                                                                                         | 100                                                                                 | 67                                                                                  | 280                                                                                                                                                                                                                                                         | 28                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                                                                                                     |                                                                                   | No                                                                                |                                                                                                                                                                     |                                                                                   | No                                                                                  |                                                                                                                                                                                                                                                             |                                                                                     | No                                                                                  |                                                                                                                                                                                                                                                             |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 13                                                                                | 610                                                                                                                                                                 | 87                                                                                | 96                                                                                | 377                                                                                                                                                                 | 14                                                                                | 152                                                                                 | 441                                                                                                                                                                                                                                                         | 106                                                                                 | 71                                                                                  | 298                                                                                                                                                                                                                                                         | 30                                                                                  |
| Peak Hour Factor             | 0.94                                                                              | 0.94                                                                                                                                                                | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                                                                                                | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                                                                                                                                                                                        | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                                                                                                                                                                                        | 0.94                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 29                                                                                | 796                                                                                                                                                                 | 353                                                                               | 123                                                                               | 983                                                                                                                                                                 | 436                                                                               | 175                                                                                 | 1868                                                                                                                                                                                                                                                        | 578                                                                                 | 103                                                                                 | 1536                                                                                                                                                                                                                                                        | 152                                                                                 |
| Arrive On Green              | 0.02                                                                              | 0.22                                                                                                                                                                | 0.22                                                                              | 0.07                                                                              | 0.28                                                                                                                                                                | 0.28                                                                              | 0.10                                                                                | 0.37                                                                                                                                                                                                                                                        | 0.37                                                                                | 0.06                                                                                | 0.33                                                                                                                                                                                                                                                        | 0.33                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                                                                                                                | 1574                                                                              | 1781                                                                              | 3554                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 5106                                                                                                                                                                                                                                                        | 1579                                                                                | 1781                                                                                | 4722                                                                                                                                                                                                                                                        | 466                                                                                 |
| Grp Volume(v), veh/h         | 13                                                                                | 610                                                                                                                                                                 | 87                                                                                | 96                                                                                | 377                                                                                                                                                                 | 14                                                                                | 152                                                                                 | 441                                                                                                                                                                                                                                                         | 106                                                                                 | 71                                                                                  | 213                                                                                                                                                                                                                                                         | 115                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                                                                                                                | 1574                                                                              | 1781                                                                              | 1777                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1579                                                                                | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1784                                                                                |
| Q Serve(g_s), s              | 0.4                                                                               | 9.6                                                                                                                                                                 | 2.7                                                                               | 3.2                                                                               | 5.2                                                                                                                                                                 | 0.4                                                                               | 5.0                                                                                 | 3.6                                                                                                                                                                                                                                                         | 2.7                                                                                 | 2.3                                                                                 | 2.7                                                                                                                                                                                                                                                         | 2.8                                                                                 |
| Cycle Q Clear(g_c), s        | 0.4                                                                               | 9.6                                                                                                                                                                 | 2.7                                                                               | 3.2                                                                               | 5.2                                                                                                                                                                 | 0.4                                                                               | 5.0                                                                                 | 3.6                                                                                                                                                                                                                                                         | 2.7                                                                                 | 2.3                                                                                 | 2.7                                                                                                                                                                                                                                                         | 2.8                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.26                                                                                |
| Lane Grp Cap(c), veh/h       | 29                                                                                | 796                                                                                                                                                                 | 353                                                                               | 123                                                                               | 983                                                                                                                                                                 | 436                                                                               | 175                                                                                 | 1868                                                                                                                                                                                                                                                        | 578                                                                                 | 103                                                                                 | 1108                                                                                                                                                                                                                                                        | 580                                                                                 |
| V/C Ratio(X)                 | 0.45                                                                              | 0.77                                                                                                                                                                | 0.25                                                                              | 0.78                                                                              | 0.38                                                                                                                                                                | 0.03                                                                              | 0.87                                                                                | 0.24                                                                                                                                                                                                                                                        | 0.18                                                                                | 0.69                                                                                | 0.19                                                                                                                                                                                                                                                        | 0.20                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 948                                                                                                                                                                 | 420                                                                               | 148                                                                               | 983                                                                                                                                                                 | 436                                                                               | 175                                                                                 | 1868                                                                                                                                                                                                                                                        | 578                                                                                 | 151                                                                                 | 1108                                                                                                                                                                                                                                                        | 580                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 0.96                                                                              | 0.96                                                                                                                                                                | 0.96                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 29.2                                                                              | 21.8                                                                                                                                                                | 19.1                                                                              | 27.5                                                                              | 17.6                                                                                                                                                                | 15.8                                                                              | 26.7                                                                                | 13.2                                                                                                                                                                                                                                                        | 12.9                                                                                | 27.7                                                                                | 14.6                                                                                                                                                                                                                                                        | 14.6                                                                                |
| Incr Delay (d2), s/veh       | 10.5                                                                              | 3.2                                                                                                                                                                 | 0.4                                                                               | 18.9                                                                              | 0.2                                                                                                                                                                 | 0.0                                                                               | 34.0                                                                                | 0.3                                                                                                                                                                                                                                                         | 0.7                                                                                 | 7.9                                                                                 | 0.4                                                                                                                                                                                                                                                         | 0.8                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.3                                                                               | 3.7                                                                                                                                                                 | 0.9                                                                               | 1.8                                                                               | 1.8                                                                                                                                                                 | 0.1                                                                               | 3.5                                                                                 | 1.1                                                                                                                                                                                                                                                         | 0.9                                                                                 | 1.1                                                                                 | 0.9                                                                                                                                                                                                                                                         | 1.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 39.8                                                                              | 25.0                                                                                                                                                                | 19.5                                                                              | 46.4                                                                              | 17.8                                                                                                                                                                | 15.9                                                                              | 60.7                                                                                | 13.5                                                                                                                                                                                                                                                        | 13.6                                                                                | 35.7                                                                                | 15.0                                                                                                                                                                                                                                                        | 15.4                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                   | B                                                                                 | D                                                                                 | B                                                                                                                                                                   | B                                                                                 | E                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   | D                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   |
| Approach Vol, veh/h          | 710                                                                               |                                                                                                                                                                     |                                                                                   | 487                                                                               |                                                                                                                                                                     |                                                                                   | 699                                                                                 |                                                                                                                                                                                                                                                             |                                                                                     | 399                                                                                 |                                                                                                                                                                                                                                                             |                                                                                     |
| Approach Delay, s/veh        | 24.6                                                                              |                                                                                                                                                                     |                                                                                   | 23.4                                                                              |                                                                                                                                                                     |                                                                                   | 23.8                                                                                |                                                                                                                                                                                                                                                             |                                                                                     | 18.8                                                                                |                                                                                                                                                                                                                                                             |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                                                                                                     |                                                                                   | C                                                                                 |                                                                                                                                                                     |                                                                                   | C                                                                                   |                                                                                                                                                                                                                                                             |                                                                                     | B                                                                                   |                                                                                                                                                                                                                                                             |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                   | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                   | 6                                                                                 | 7                                                                                   | 8                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.0                                                                               | 26.0                                                                                                                                                                | 8.6                                                                               | 17.4                                                                              | 10.4                                                                                                                                                                | 23.5                                                                              | 5.5                                                                                 | 20.6                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 5.1                                                                               | 16.9                                                                                                                                                                | 5.0                                                                               | 16.0                                                                              | 5.9                                                                                                                                                                 | 16.1                                                                              | 5.0                                                                                 | 16.0                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.3                                                                               | 5.6                                                                                                                                                                 | 5.2                                                                               | 11.6                                                                              | 7.0                                                                                                                                                                 | 4.8                                                                               | 2.4                                                                                 | 7.2                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.2                                                                                                                                                                 | 0.0                                                                               | 1.6                                                                               | 0.0                                                                                                                                                                 | 1.2                                                                               | 0.0                                                                                 | 1.4                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           | 23.1                                                                              |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

Lanes, Volumes, Timings  
5: Cook St. & Frank Sinatra Dr.

Existing (2022) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 332                                                                               | 257                                                                               | 136                                                                               | 42                                                                                | 163                                                                               | 39                                                                                | 119                                                                                | 882                                                                                 | 74                                                                                  | 75                                                                                  | 755                                                                                 | 183                                                                                 |
| Future Volume (vph)     | 332                                                                               | 257                                                                               | 136                                                                               | 42                                                                                | 163                                                                               | 39                                                                                | 119                                                                                | 882                                                                                 | 74                                                                                  | 75                                                                                  | 755                                                                                 | 183                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                   | 135                                                                               | 135                                                                               |                                                                                   | 260                                                                               | 140                                                                                |                                                                                     | 0                                                                                   | 210                                                                                 |                                                                                     | 220                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 210                                                                               |                                                                                   |                                                                                   | 110                                                                               |                                                                                   |                                                                                   | 110                                                                                |                                                                                     |                                                                                     | 140                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 4512                                                                              |                                                                                   |                                                                                   | 1444                                                                              |                                                                                   |                                                                                    | 671                                                                                 |                                                                                     |                                                                                     | 1610                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                   | 19.7                                                                              |                                                                                   |                                                                                    | 8.3                                                                                 |                                                                                     |                                                                                     | 20.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Adj. Flow (vph)         | 361                                                                               | 279                                                                               | 148                                                                               | 46                                                                                | 177                                                                               | 42                                                                                | 129                                                                                | 959                                                                                 | 80                                                                                  | 82                                                                                  | 821                                                                                 | 199                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 361                                                                               | 279                                                                               | 148                                                                               | 46                                                                                | 177                                                                               | 42                                                                                | 129                                                                                | 1039                                                                                | 0                                                                                   | 82                                                                                  | 821                                                                                 | 199                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 10.0                                                                              | 20.5                                                                              | 20.5                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.5                                                                                |                                                                                     | 9.5                                                                                 | 20.5                                                                                | 20.5                                                                                |
| Total Split (%)         | 16.7%                                                                             | 34.2%                                                                             | 34.2%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 34.2%                                                                               |                                                                                     | 15.8%                                                                               | 34.2%                                                                               | 34.2%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 5: Cook St. & Frank Sinatra Dr.

|                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |
| Ø1                                                                                  | Ø2 (R)                                                                              | Ø3                                                                                  | Ø4                                                                                    |
| 9.5 s                                                                               | 20.5 s                                                                              | 9.5 s                                                                               | 20.5 s                                                                                |
|  |  |  |  |
| Ø5                                                                                  | Ø6 (R)                                                                              | Ø7                                                                                  | Ø8                                                                                    |
| 9.5 s                                                                               | 20.5 s                                                                              | 10 s                                                                                | 20 s                                                                                  |

HCM 6th Signalized Intersection Summary  
5: Cook St. & Frank Sinatra Dr.

Existing (2022) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (veh/h)       | 332                                                                               | 257                                                                               | 136                                                                               | 42                                                                                | 163                                                                               | 39                                                                                | 119                                                                                 | 882                                                                                 | 74                                                                                  | 75                                                                                  | 755                                                                                 | 183                                                                                 |
| Future Volume (veh/h)        | 332                                                                               | 257                                                                               | 136                                                                               | 42                                                                                | 163                                                                               | 39                                                                                | 119                                                                                 | 882                                                                                 | 74                                                                                  | 75                                                                                  | 755                                                                                 | 183                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 361                                                                               | 279                                                                               | 148                                                                               | 46                                                                                | 177                                                                               | 42                                                                                | 129                                                                                 | 959                                                                                 | 80                                                                                  | 82                                                                                  | 821                                                                                 | 199                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 317                                                                               | 548                                                                               | 242                                                                               | 154                                                                               | 381                                                                               | 168                                                                               | 254                                                                                 | 1513                                                                                | 126                                                                                 | 215                                                                                 | 2268                                                                                | 702                                                                                 |
| Arrive On Green              | 0.09                                                                              | 0.15                                                                              | 0.15                                                                              | 0.04                                                                              | 0.11                                                                              | 0.11                                                                              | 0.07                                                                                | 0.46                                                                                | 0.46                                                                                | 0.12                                                                                | 0.89                                                                                | 0.89                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1570                                                                              | 3456                                                                              | 3554                                                                              | 1563                                                                              | 3456                                                                                | 3319                                                                                | 277                                                                                 | 3456                                                                                | 5106                                                                                | 1580                                                                                |
| Grp Volume(v), veh/h         | 361                                                                               | 279                                                                               | 148                                                                               | 46                                                                                | 177                                                                               | 42                                                                                | 129                                                                                 | 513                                                                                 | 526                                                                                 | 82                                                                                  | 821                                                                                 | 199                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1570                                                                              | 1728                                                                              | 1777                                                                              | 1563                                                                              | 1728                                                                                | 1777                                                                                | 1819                                                                                | 1728                                                                                | 1702                                                                                | 1580                                                                                |
| Q Serve(g_s), s              | 5.5                                                                               | 4.3                                                                               | 5.3                                                                               | 0.8                                                                               | 2.8                                                                               | 1.5                                                                               | 2.2                                                                                 | 13.3                                                                                | 13.3                                                                                | 1.3                                                                                 | 1.6                                                                                 | 1.1                                                                                 |
| Cycle Q Clear(g_c), s        | 5.5                                                                               | 4.3                                                                               | 5.3                                                                               | 0.8                                                                               | 2.8                                                                               | 1.5                                                                               | 2.2                                                                                 | 13.3                                                                                | 13.3                                                                                | 1.3                                                                                 | 1.6                                                                                 | 1.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.15                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 317                                                                               | 548                                                                               | 242                                                                               | 154                                                                               | 381                                                                               | 168                                                                               | 254                                                                                 | 810                                                                                 | 829                                                                                 | 215                                                                                 | 2268                                                                                | 702                                                                                 |
| V/C Ratio(X)                 | 1.14                                                                              | 0.51                                                                              | 0.61                                                                              | 0.30                                                                              | 0.46                                                                              | 0.25                                                                              | 0.51                                                                                | 0.63                                                                                | 0.63                                                                                | 0.38                                                                                | 0.36                                                                                | 0.28                                                                                |
| Avail Cap(c_a), veh/h        | 317                                                                               | 977                                                                               | 432                                                                               | 288                                                                               | 948                                                                               | 417                                                                               | 288                                                                                 | 810                                                                                 | 829                                                                                 | 288                                                                                 | 2268                                                                                | 702                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 0.76                                                                              | 0.76                                                                              | 0.76                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.96                                                                                | 0.96                                                                                | 0.96                                                                                |
| Uniform Delay (d), s/veh     | 27.2                                                                              | 23.3                                                                              | 23.7                                                                              | 27.8                                                                              | 25.2                                                                              | 24.6                                                                              | 26.7                                                                                | 12.5                                                                                | 12.5                                                                                | 25.2                                                                                | 2.0                                                                                 | 1.9                                                                                 |
| Incr Delay (d2), s/veh       | 88.0                                                                              | 0.6                                                                               | 1.9                                                                               | 1.1                                                                               | 0.9                                                                               | 0.8                                                                               | 1.6                                                                                 | 3.8                                                                                 | 3.7                                                                                 | 1.1                                                                                 | 0.4                                                                                 | 1.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 5.8                                                                               | 1.6                                                                               | 1.8                                                                               | 0.3                                                                               | 1.1                                                                               | 0.5                                                                               | 0.8                                                                                 | 4.5                                                                                 | 4.6                                                                                 | 0.5                                                                                 | 0.4                                                                                 | 0.4                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 115.2                                                                             | 23.8                                                                              | 25.6                                                                              | 28.8                                                                              | 26.0                                                                              | 25.3                                                                              | 28.3                                                                                | 16.3                                                                                | 16.2                                                                                | 26.3                                                                                | 2.4                                                                                 | 2.9                                                                                 |
| LnGrp LOS                    | F                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 788                                                                               |                                                                                   |                                                                                   | 265                                                                               |                                                                                   |                                                                                     | 1168                                                                                |                                                                                     |                                                                                     | 1102                                                                                |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 66.0                                                                              |                                                                                   |                                                                                   | 26.4                                                                              |                                                                                   |                                                                                     | 17.6                                                                                |                                                                                     |                                                                                     | 4.3                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | B                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.2                                                                               | 31.3                                                                              | 7.2                                                                               | 13.3                                                                              | 8.9                                                                               | 30.6                                                                              | 10.0                                                                                | 10.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 16.5                                                                              | 5.0                                                                               | 16.5                                                                              | 5.0                                                                               | 16.5                                                                              | 5.5                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.3                                                                               | 15.3                                                                              | 2.8                                                                               | 7.3                                                                               | 4.2                                                                               | 3.6                                                                               | 7.5                                                                                 | 4.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.7                                                                               | 0.0                                                                               | 1.4                                                                               | 0.0                                                                               | 4.6                                                                               | 0.0                                                                                 | 0.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 25.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
6: Portola Av. & Retreat Circ. (N)

Existing (2022) PM Peak Hour

|                             |  |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group                  | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations         |                                                                                   |  |    |  |  |   |
| Traffic Volume (vph)        | 0                                                                                 | 14                                                                                | 644                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 448                                                                                                                                                                 |
| Future Volume (vph)         | 0                                                                                 | 14                                                                                | 644                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 448                                                                                                                                                                 |
| Ideal Flow (vphpl)          | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)         | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes               | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)           | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)            | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)          | 217                                                                               |                                                                                   | 282                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 254                                                                                                                                                                 |
| Travel Time (s)             | 4.9                                                                               |                                                                                   | 3.5                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 3.1                                                                                                                                                                 |
| Confl. Peds. (#/hr)         | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor            | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                                                                                                  | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                |
| Adj. Flow (vph)             | 0                                                                                 | 15                                                                                | 692                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 482                                                                                                                                                                 |
| Shared Lane Traffic (%)     |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)       | 0                                                                                 | 15                                                                                | 692                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 482                                                                                                                                                                 |
| Sign Control                | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| <b>Intersection Summary</b> |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:                  | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:               | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |        |          |      |        |      |      |
|--------------------------|--------|----------|------|--------|------|------|
| Int Delay, s/veh         | 0.2    |          |      |        |      |      |
| Movement                 | WBL    | WBR      | NBT  | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗        | ↗↗↗  | ↗      | ↗    | ↗↗   |
| Traffic Vol, veh/h       | 0      | 14       | 644  | 5      | 4    | 448  |
| Future Vol, veh/h        | 0      | 14       | 644  | 5      | 4    | 448  |
| Conflicting Peds, #/hr   | 5      | 5        | 0    | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free | Free   | Free | Free |
| RT Channelized           | -      | None     | -    | None   | -    | None |
| Storage Length           | -      | -        | -    | 150    | 150  | -    |
| Veh in Median Storage, # | 0      | -        | 0    | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0    | -      | -    | 0    |
| Peak Hour Factor         | 93     | 93       | 93   | 93     | 93   | 93   |
| Heavy Vehicles, %        | 2      | 2        | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 15       | 692  | 5      | 4    | 482  |
| Major/Minor              | Minor1 | Major1   |      | Major2 |      |      |
| Conflicting Flow All     | -      | 356      | 0    | 0      | 702  | 0    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -    | -      | 5.34 | -    |
| Critical Hdwy Stg 1      | -      | -        | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -    | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -    | -      | 3.12 | -    |
| Pot Cap-1 Maneuver       | 0      | 547      | -    | -      | 544  | -    |
| Stage 1                  | 0      | -        | -    | -      | -    | -    |
| Stage 2                  | 0      | -        | -    | -      | -    | -    |
| Platoon blocked, %       | -      | -        | -    | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 542      | -    | -      | 541  | -    |
| Mov Cap-2 Maneuver       | -      | -        | -    | -      | -    | -    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Approach                 | WB     | NB       |      | SB     |      |      |
| HCM Control Delay, s     | 11.8   | 0        |      | 0.1    |      |      |
| HCM LOS                  | B      |          |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |      | SBL    | SBT  |      |
| Capacity (veh/h)         | -      | 542      |      | 541    | -    |      |
| HCM Lane V/C Ratio       | -      | 0.028    |      | 0.008  | -    |      |
| HCM Control Delay (s)    | -      | 11.8     |      | 11.7   | -    |      |
| HCM Lane LOS             | -      | B        |      | B      | -    |      |
| HCM 95th %tile Q(veh)    | -      | 0.1      |      | 0      | -    |      |

Lanes, Volumes, Timings  
7: Portola Av. & Retreat Circ. (S)

Existing (2022) PM Peak Hour

|                         |  |  |                                                                                                                                                                                                                                                        |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                                                                                                     | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |     |                                                                                   |                                                                                   |   |
| Traffic Volume (vph)    | 0                                                                                 | 1                                                                                 | 648                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 448                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 1                                                                                 | 648                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 448                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                                                                                                    | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                                                                                                         | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 243                                                                               |                                                                                   | 194                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 417                                                                                                                                                                 |
| Travel Time (s)         | 5.5                                                                               |                                                                                   | 2.4                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 5.2                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                                                                                                    | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 1                                                                                 | 704                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 487                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 1                                                                                 | 705                                                                                                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 487                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
7: Portola Av. & Retreat Circ. (S)

Existing (2022) PM Peak Hour

| Intersection             |        |          |         |        |      |      |
|--------------------------|--------|----------|---------|--------|------|------|
| Int Delay, s/veh         | 0      |          |         |        |      |      |
| Movement                 | WBL    | WBR      | NBT     | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗ ↘ ↘ ↘  | ↗ ↘ ↘ ↘ |        |      | ↗ ↘  |
| Traffic Vol, veh/h       | 0      | 1        | 648     | 1      | 0    | 448  |
| Future Vol, veh/h        | 0      | 1        | 648     | 1      | 0    | 448  |
| Conflicting Peds, #/hr   | 5      | 5        | 0       | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free    | Free   | Free | Free |
| RT Channelized           | -      | None     | -       | None   | -    | None |
| Storage Length           | -      | -        | -       | -      | -    | -    |
| Veh in Median Storage, # | 0      | -        | 0       | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0       | -      | -    | 0    |
| Peak Hour Factor         | 92     | 92       | 92      | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2        | 2       | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 1        | 704     | 1      | 0    | 487  |
| Major/Minor              | Minor1 | Major1   |         | Major2 |      |      |
| Conflicting Flow All     | -      | 363      | 0       | 0      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -       | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -        | -       | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -       | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -       | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 541      | -       | -      | 0    | -    |
| Stage 1                  | 0      | -        | -       | -      | 0    | -    |
| Stage 2                  | 0      | -        | -       | -      | 0    | -    |
| Platoon blocked, %       | -      | -        | -       | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 536      | -       | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -        | -       | -      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Approach                 | WB     | NB       |         | SB     |      |      |
| HCM Control Delay, s     | 11.7   | 0        |         | 0      |      |      |
| HCM LOS                  | B      |          |         |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |         | SBT    |      |      |
| Capacity (veh/h)         | -      | 536      |         | -      |      |      |
| HCM Lane V/C Ratio       | -      | 0.002    |         | -      |      |      |
| HCM Control Delay (s)    | -      | 11.7     |         | -      |      |      |
| HCM Lane LOS             | -      | B        |         | -      |      |      |
| HCM 95th %tile Q(veh)    | -      | 0        |         | -      |      |      |

Lanes, Volumes, Timings  
8: Portola Av. & Willow Ridge

Existing (2022) PM Peak Hour

|                             |  |  |                                                                                    |  |  |                                                                                    |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group                  | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                 | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations         |  |  |   |  |  |   |
| Traffic Volume (vph)        | 45                                                                                | 27                                                                                | 628                                                                                                                                                                 | 40                                                                                | 30                                                                                | 418                                                                                                                                                                 |
| Future Volume (vph)         | 45                                                                                | 27                                                                                | 628                                                                                                                                                                 | 40                                                                                | 30                                                                                | 418                                                                                                                                                                 |
| Ideal Flow (vphpl)          | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)         | 0                                                                                 | 50                                                                                |                                                                                                                                                                     | 150                                                                               | 100                                                                               |                                                                                                                                                                     |
| Storage Lanes               | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)           | 90                                                                                |                                                                                   |                                                                                                                                                                     |                                                                                   | 60                                                                                |                                                                                                                                                                     |
| Link Speed (mph)            | 30                                                                                |                                                                                   | 55                                                                                                                                                                  |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)          | 309                                                                               |                                                                                   | 2578                                                                                                                                                                |                                                                                   |                                                                                   | 801                                                                                                                                                                 |
| Travel Time (s)             | 7.0                                                                               |                                                                                   | 32.0                                                                                                                                                                |                                                                                   |                                                                                   | 9.9                                                                                                                                                                 |
| Confl. Peds. (#/hr)         | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor            | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                |
| Adj. Flow (vph)             | 48                                                                                | 29                                                                                | 675                                                                                                                                                                 | 43                                                                                | 32                                                                                | 449                                                                                                                                                                 |
| Shared Lane Traffic (%)     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)       | 48                                                                                | 29                                                                                | 675                                                                                                                                                                 | 43                                                                                | 32                                                                                | 449                                                                                                                                                                 |
| Sign Control                | Stop                                                                              |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| <b>Intersection Summary</b> |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:                  | Other                                                                             |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:               | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
8: Portola Av. & Willow Ridge

Existing (2022) PM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 45                                                                                | 27                                                                                | 628                                                                               | 40                                                                                | 30                                                                                | 418                                                                               |
| Future Vol, veh/h        | 45                                                                                | 27                                                                                | 628                                                                               | 40                                                                                | 30                                                                                | 418                                                                               |
| Conflicting Peds, #/hr   | 5                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 50                                                                                | -                                                                                 | 150                                                                               | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 48                                                                                | 29                                                                                | 675                                                                               | 43                                                                                | 32                                                                                | 449                                                                               |
| Major/Minor              | Minor1                                                                            | Major1                                                                            | Major2                                                                            |                                                                                   |                                                                                   |                                                                                   |
| Conflicting Flow All     | 974                                                                               | 348                                                                               | 0                                                                                 | 0                                                                                 | 723                                                                               | 0                                                                                 |
| Stage 1                  | 680                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 294                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| 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       | 249                                                                               | 648                                                                               | -                                                                                 | -                                                                                 | 875                                                                               | -                                                                                 |
| Stage 1                  | 465                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 730                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 237                                                                               | 642                                                                               | -                                                                                 | -                                                                                 | 871                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver       | 355                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 463                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 699                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB                                                                                | SB                                                                                |                                                                                   |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 14.5                                                                              | 0                                                                                 | 0.6                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT                                                                               |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | - 355 642                                                                         | 871                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | - 0.136 0.045                                                                     | 0.037                                                                             | -                                                                                 |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | - 16.7 10.9                                                                       | 9.3                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane LOS             | -                                                                                 | - C B                                                                             | A                                                                                 | -                                                                                 |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | - 0.5 0.1                                                                         | 0.1                                                                               | -                                                                                 |                                                                                   |                                                                                   |

Lanes, Volumes, Timings  
9: Portola Av. & Country Club Dr.

Existing (2022) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 36                                                                                | 741                                                                               | 168                                                                               | 177                                                                               | 531                                                                               | 121                                                                               | 163                                                                                 | 445                                                                                 | 170                                                                                 | 72                                                                                  | 377                                                                                 | 50                                                                                  |
| Future Volume (vph)     | 36                                                                                | 741                                                                               | 168                                                                               | 177                                                                               | 531                                                                               | 121                                                                               | 163                                                                                 | 445                                                                                 | 170                                                                                 | 72                                                                                  | 377                                                                                 | 50                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 200                                                                               |                                                                                   | 105                                                                               | 180                                                                               |                                                                                   | 80                                                                                | 160                                                                                 |                                                                                     | 135                                                                                 | 200                                                                                 |                                                                                     | 50                                                                                  |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 100                                                                                 |                                                                                     |                                                                                     | 60                                                                                  |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1030                                                                              |                                                                                   |                                                                                   | 784                                                                               |                                                                                   |                                                                                     | 945                                                                                 |                                                                                     |                                                                                     | 2578                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   | 10.7                                                                              |                                                                                   |                                                                                     | 11.7                                                                                |                                                                                     |                                                                                     | 32.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Adj. Flow (vph)         | 37                                                                                | 764                                                                               | 173                                                                               | 182                                                                               | 547                                                                               | 125                                                                               | 168                                                                                 | 459                                                                                 | 175                                                                                 | 74                                                                                  | 389                                                                                 | 52                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 37                                                                                | 764                                                                               | 173                                                                               | 182                                                                               | 547                                                                               | 125                                                                               | 168                                                                                 | 459                                                                                 | 175                                                                                 | 74                                                                                  | 389                                                                                 | 52                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 11.3                                                                              | 41.0                                                                              | 41.0                                                                              | 27.0                                                                              | 56.7                                                                              | 56.7                                                                              | 26.0                                                                                | 36.9                                                                                | 36.9                                                                                | 15.1                                                                                | 26.0                                                                                | 26.0                                                                                |
| Total Split (%)         | 9.4%                                                                              | 34.2%                                                                             | 34.2%                                                                             | 22.5%                                                                             | 47.3%                                                                             | 47.3%                                                                             | 21.7%                                                                               | 30.8%                                                                               | 30.8%                                                                               | 12.6%                                                                               | 21.7%                                                                               | 21.7%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 120

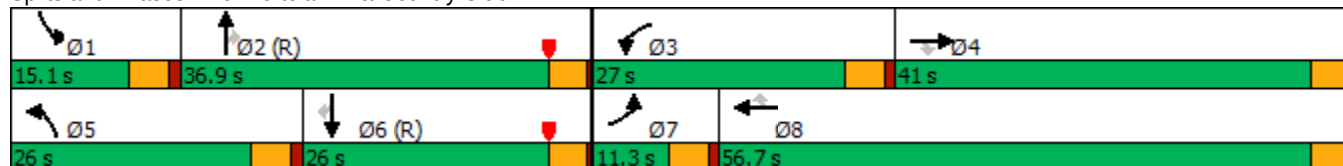
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 9: Portola Av. & Country Club Dr.



HCM 6th Signalized Intersection Summary  
9: Portola Av. & Country Club Dr.

Existing (2022) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 36                                                                                | 741                                                                               | 168                                                                               | 177                                                                               | 531                                                                               | 121                                                                               | 163                                                                                 | 445                                                                                 | 170                                                                                 | 72                                                                                  | 377                                                                                 | 50                                                                                  |
| Future Volume (veh/h)        | 36                                                                                | 741                                                                               | 168                                                                               | 177                                                                               | 531                                                                               | 121                                                                               | 163                                                                                 | 445                                                                                 | 170                                                                                 | 72                                                                                  | 377                                                                                 | 50                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 37                                                                                | 764                                                                               | 173                                                                               | 182                                                                               | 547                                                                               | 125                                                                               | 168                                                                                 | 459                                                                                 | 175                                                                                 | 74                                                                                  | 389                                                                                 | 52                                                                                  |
| Peak Hour Factor             | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 53                                                                                | 899                                                                               | 399                                                                               | 212                                                                               | 1217                                                                              | 541                                                                               | 198                                                                                 | 1539                                                                                | 684                                                                                 | 95                                                                                  | 1334                                                                                | 593                                                                                 |
| Arrive On Green              | 0.03                                                                              | 0.25                                                                              | 0.25                                                                              | 0.12                                                                              | 0.34                                                                              | 0.34                                                                              | 0.11                                                                                | 0.43                                                                                | 0.43                                                                                | 0.05                                                                                | 0.38                                                                                | 0.38                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1576                                                                              | 1781                                                                              | 3554                                                                              | 1578                                                                              | 1781                                                                                | 3554                                                                                | 1580                                                                                | 1781                                                                                | 3554                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 37                                                                                | 764                                                                               | 173                                                                               | 182                                                                               | 547                                                                               | 125                                                                               | 168                                                                                 | 459                                                                                 | 175                                                                                 | 74                                                                                  | 389                                                                                 | 52                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1576                                                                              | 1781                                                                              | 1777                                                                              | 1578                                                                              | 1781                                                                                | 1777                                                                                | 1580                                                                                | 1781                                                                                | 1777                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 2.5                                                                               | 24.5                                                                              | 11.1                                                                              | 12.0                                                                              | 14.4                                                                              | 6.8                                                                               | 11.1                                                                                | 10.1                                                                                | 8.5                                                                                 | 4.9                                                                                 | 9.2                                                                                 | 2.6                                                                                 |
| Cycle Q Clear(g_c), s        | 2.5                                                                               | 24.5                                                                              | 11.1                                                                              | 12.0                                                                              | 14.4                                                                              | 6.8                                                                               | 11.1                                                                                | 10.1                                                                                | 8.5                                                                                 | 4.9                                                                                 | 9.2                                                                                 | 2.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 53                                                                                | 899                                                                               | 399                                                                               | 212                                                                               | 1217                                                                              | 541                                                                               | 198                                                                                 | 1539                                                                                | 684                                                                                 | 95                                                                                  | 1334                                                                                | 593                                                                                 |
| V/C Ratio(X)                 | 0.70                                                                              | 0.85                                                                              | 0.43                                                                              | 0.86                                                                              | 0.45                                                                              | 0.23                                                                              | 0.85                                                                                | 0.30                                                                                | 0.26                                                                                | 0.78                                                                                | 0.29                                                                                | 0.09                                                                                |
| Avail Cap(c_a), veh/h        | 101                                                                               | 1096                                                                              | 486                                                                               | 334                                                                               | 1561                                                                              | 693                                                                               | 319                                                                                 | 1539                                                                                | 684                                                                                 | 157                                                                                 | 1334                                                                                | 593                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 57.7                                                                              | 42.6                                                                              | 37.6                                                                              | 51.9                                                                              | 30.7                                                                              | 28.2                                                                              | 52.4                                                                                | 22.1                                                                                | 21.7                                                                                | 56.1                                                                                | 26.3                                                                                | 24.2                                                                                |
| Incr Delay (d2), s/veh       | 15.7                                                                              | 5.5                                                                               | 0.7                                                                               | 12.4                                                                              | 0.3                                                                               | 0.2                                                                               | 11.4                                                                                | 0.5                                                                                 | 0.9                                                                                 | 13.1                                                                                | 0.6                                                                                 | 0.3                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.3                                                                               | 11.0                                                                              | 4.2                                                                               | 5.9                                                                               | 5.9                                                                               | 2.5                                                                               | 5.4                                                                                 | 4.0                                                                                 | 3.1                                                                                 | 2.5                                                                                 | 3.8                                                                                 | 1.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 73.4                                                                              | 48.1                                                                              | 38.3                                                                              | 64.2                                                                              | 30.9                                                                              | 28.4                                                                              | 63.8                                                                                | 22.6                                                                                | 22.6                                                                                | 69.2                                                                                | 26.8                                                                                | 24.5                                                                                |
| LnGrp LOS                    | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | E                                                                                   | C                                                                                   | C                                                                                   | E                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 974                                                                               |                                                                                   |                                                                                   | 854                                                                               |                                                                                   |                                                                                   | 802                                                                                 |                                                                                     |                                                                                     | 515                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 47.4                                                                              |                                                                                   |                                                                                   | 37.6                                                                              |                                                                                   |                                                                                   | 31.2                                                                                |                                                                                     |                                                                                     | 32.7                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 10.9                                                                              | 56.0                                                                              | 18.8                                                                              | 34.4                                                                              | 17.8                                                                              | 49.0                                                                              | 8.0                                                                                 | 45.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.6                                                                              | 32.9                                                                              | 22.5                                                                              | 37.0                                                                              | 21.5                                                                              | 22.0                                                                              | 6.8                                                                                 | 52.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 6.9                                                                               | 12.1                                                                              | 14.0                                                                              | 26.5                                                                              | 13.1                                                                              | 11.2                                                                              | 4.5                                                                                 | 16.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 3.1                                                                               | 0.3                                                                               | 3.8                                                                               | 0.2                                                                               | 1.7                                                                               | 0.0                                                                                 | 3.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 38.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
11: Cook St. & University Park Dr./Berger Dr.

Existing (2022) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 47                                                                                | 4                                                                                 | 30                                                                                | 16                                                                                | 6                                                                                 | 56                                                                                | 41                                                                                  | 1203                                                                                | 9                                                                                   | 44                                                                                  | 967                                                                                 | 41                                                                                  |
| Future Volume (vph)     | 47                                                                                | 4                                                                                 | 30                                                                                | 16                                                                                | 6                                                                                 | 56                                                                                | 41                                                                                  | 1203                                                                                | 9                                                                                   | 44                                                                                  | 967                                                                                 | 41                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 180                                                                               |                                                                                   | 180                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 140                                                                                 |                                                                                     | 140                                                                                 | 225                                                                                 |                                                                                     | 295                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 160                                                                                 |                                                                                     |                                                                                     | 165                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 460                                                                               |                                                                                   |                                                                                     | 1610                                                                                |                                                                                     |                                                                                     | 602                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 10.2                                                                              |                                                                                   |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                     | 20.0                                                                                |                                                                                     |                                                                                     | 7.5                                                                                 |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 52                                                                                | 4                                                                                 | 33                                                                                | 18                                                                                | 7                                                                                 | 62                                                                                | 46                                                                                  | 1337                                                                                | 10                                                                                  | 49                                                                                  | 1074                                                                                | 46                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 52                                                                                | 4                                                                                 | 33                                                                                | 18                                                                                | 7                                                                                 | 62                                                                                | 46                                                                                  | 1337                                                                                | 10                                                                                  | 49                                                                                  | 1074                                                                                | 46                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 11: Cook St. & University Park Dr./Berger Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 11: Cook St. & University Park Dr./Berger Dr.

Existing (2022) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 47                                                                                | 4                                                                                 | 30                                                                                | 16                                                                                | 6                                                                                 | 56                                                                                | 41                                                                                  | 1203                                                                                | 9                                                                                   | 44                                                                                  | 967                                                                                 | 41                                                                                  |
| Future Volume (veh/h)        | 47                                                                                | 4                                                                                 | 30                                                                                | 16                                                                                | 6                                                                                 | 56                                                                                | 41                                                                                  | 1203                                                                                | 9                                                                                   | 44                                                                                  | 967                                                                                 | 41                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 52                                                                                | 4                                                                                 | 33                                                                                | 18                                                                                | 7                                                                                 | 0                                                                                 | 46                                                                                  | 1337                                                                                | 0                                                                                   | 49                                                                                  | 1074                                                                                | 46                                                                                  |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 86                                                                                | 164                                                                               | 137                                                                               | 38                                                                                | 114                                                                               |                                                                                   | 79                                                                                  | 2863                                                                                |                                                                                     | 161                                                                                 | 2873                                                                                | 888                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.09                                                                              | 0.09                                                                              | 0.02                                                                              | 0.06                                                                              | 0.00                                                                              | 0.09                                                                                | 1.00                                                                                | 0.00                                                                                | 0.05                                                                                | 0.56                                                                                | 0.56                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 1870                                                                              | 1558                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 5106                                                                                | 1585                                                                                | 3456                                                                                | 5106                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 52                                                                                | 4                                                                                 | 33                                                                                | 18                                                                                | 7                                                                                 | 0                                                                                 | 46                                                                                  | 1337                                                                                | 0                                                                                   | 49                                                                                  | 1074                                                                                | 46                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1870                                                                              | 1558                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 1702                                                                                | 1585                                                                                | 1728                                                                                | 1702                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 1.7                                                                               | 0.1                                                                               | 1.2                                                                               | 0.6                                                                               | 0.2                                                                               | 0.0                                                                               | 1.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 7.0                                                                                 | 0.8                                                                                 |
| Cycle Q Clear(g_c), s        | 1.7                                                                               | 0.1                                                                               | 1.2                                                                               | 0.6                                                                               | 0.2                                                                               | 0.0                                                                               | 1.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.8                                                                                 | 7.0                                                                                 | 0.8                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 86                                                                                | 164                                                                               | 137                                                                               | 38                                                                                | 114                                                                               |                                                                                   | 79                                                                                  | 2863                                                                                |                                                                                     | 161                                                                                 | 2873                                                                                | 888                                                                                 |
| V/C Ratio(X)                 | 0.60                                                                              | 0.02                                                                              | 0.24                                                                              | 0.47                                                                              | 0.06                                                                              |                                                                                   | 0.58                                                                                | 0.47                                                                                |                                                                                     | 0.30                                                                                | 0.37                                                                                | 0.05                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 499                                                                               | 415                                                                               | 148                                                                               | 499                                                                               |                                                                                   | 148                                                                                 | 2863                                                                                |                                                                                     | 288                                                                                 | 2873                                                                                | 888                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.51                                                                                | 0.51                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 28.0                                                                              | 25.0                                                                              | 25.5                                                                              | 29.0                                                                              | 26.5                                                                              | 0.0                                                                               | 26.8                                                                                | 0.0                                                                                 | 0.0                                                                                 | 27.7                                                                                | 7.3                                                                                 | 5.9                                                                                 |
| Incr Delay (d2), s/veh       | 6.7                                                                               | 0.1                                                                               | 0.9                                                                               | 8.6                                                                               | 0.2                                                                               | 0.0                                                                               | 3.4                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 1.1                                                                                 | 0.4                                                                                 | 0.1                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.9                                                                               | 0.1                                                                               | 0.4                                                                               | 0.3                                                                               | 0.1                                                                               | 0.0                                                                               | 0.6                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 1.6                                                                                 | 0.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 34.6                                                                              | 25.1                                                                              | 26.4                                                                              | 37.6                                                                              | 26.8                                                                              | 0.0                                                                               | 30.1                                                                                | 0.3                                                                                 | 0.0                                                                                 | 28.7                                                                                | 7.6                                                                                 | 6.0                                                                                 |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 |                                                                                   | C                                                                                   | A                                                                                   |                                                                                     | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 89                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | 1383                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 31.2                                                                              |                                                                                   |                                                                                   | 34.6                                                                              |                                                                                   |                                                                                   | 1.3                                                                                 |                                                                                     |                                                                                     | 8.5                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.3                                                                               | 37.6                                                                              | 5.8                                                                               | 9.3                                                                               | 7.2                                                                               | 37.8                                                                              | 7.4                                                                                 | 7.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.8                                                                               | 2.0                                                                               | 2.6                                                                               | 3.2                                                                               | 3.5                                                                               | 9.0                                                                               | 3.7                                                                                 | 2.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 7.3                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 4.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

### Intersection Summary

HCM 6th Ctrl Delay 5.7  
 HCM 6th LOS A

### Notes

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

### **APPENDIX 3.3:**

### **TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS**

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### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2022) AM PEAK HOUR WARRANTS**

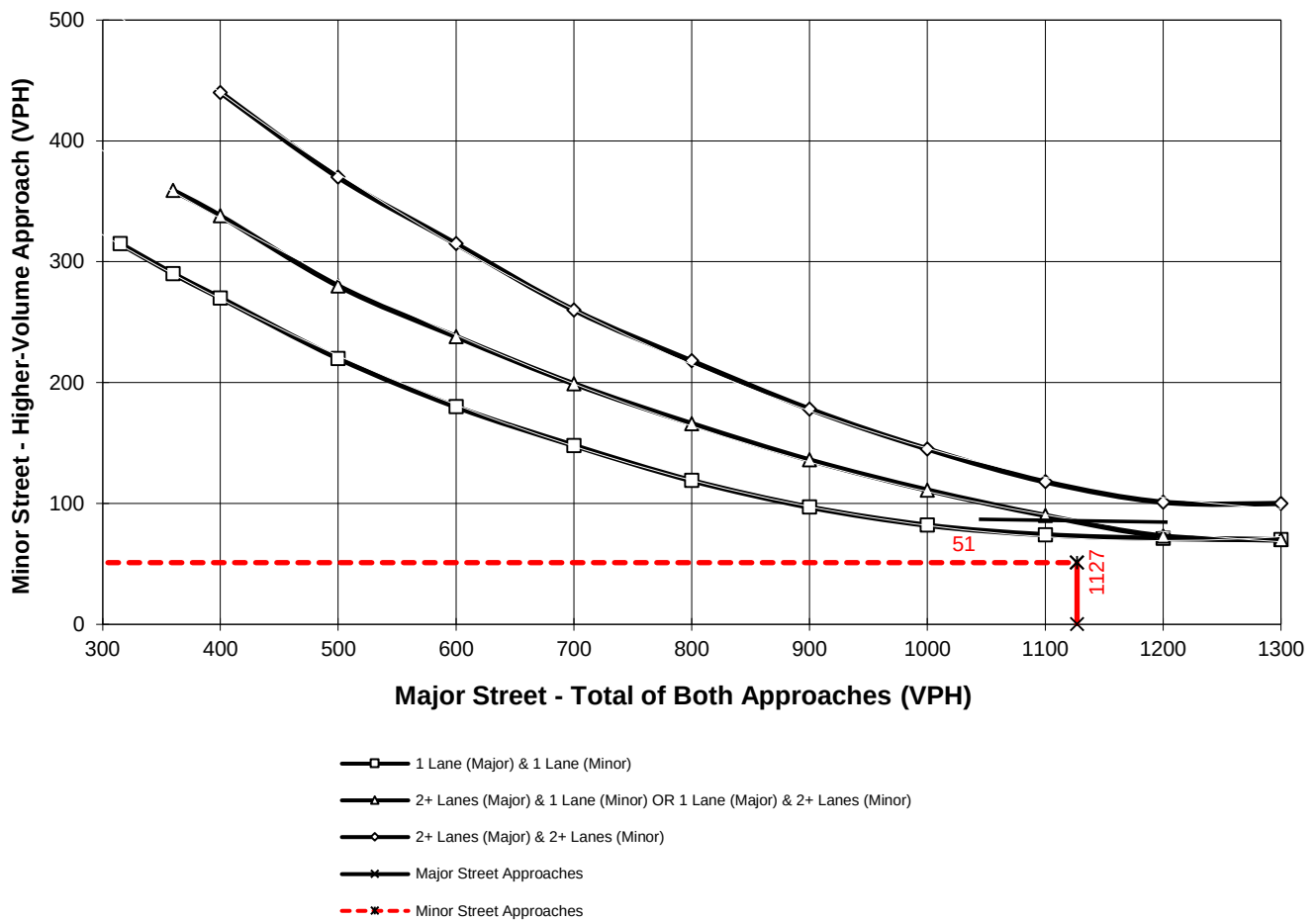
Major Street Name = **Portola Av.**

Total of Both Approaches (VPH) = **1,127**  
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Willow Ridge**

High Volume Approach (VPH) = **51**  
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes  
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2022) PM PEAK HOUR WARRANTS**

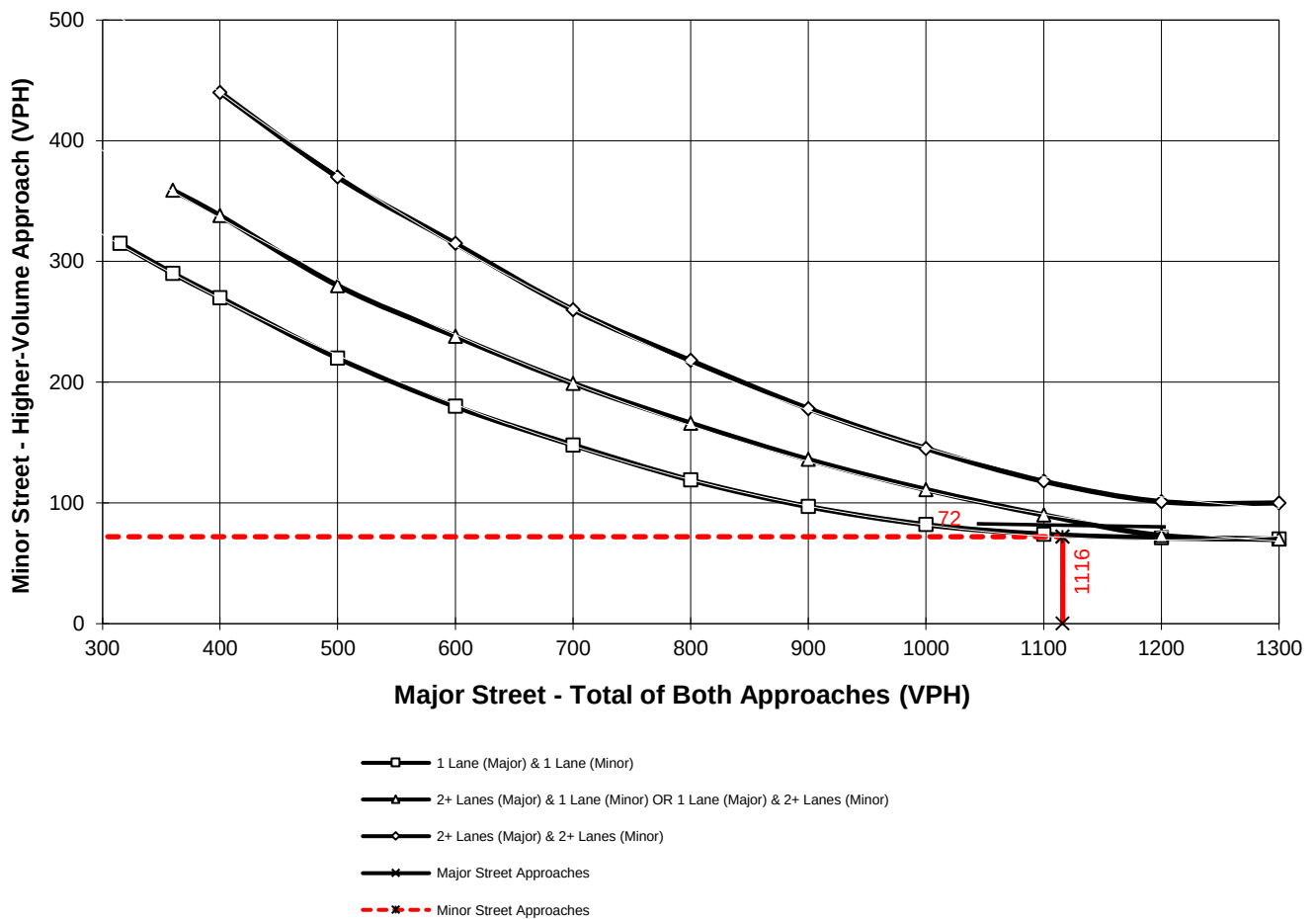
Major Street Name = **Portola Av.**

Total of Both Approaches (VPH) = **1,116**  
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Willow Ridge**

High Volume Approach (VPH) = **72**  
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes  
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP PM PEAK HOUR WARRANTS**

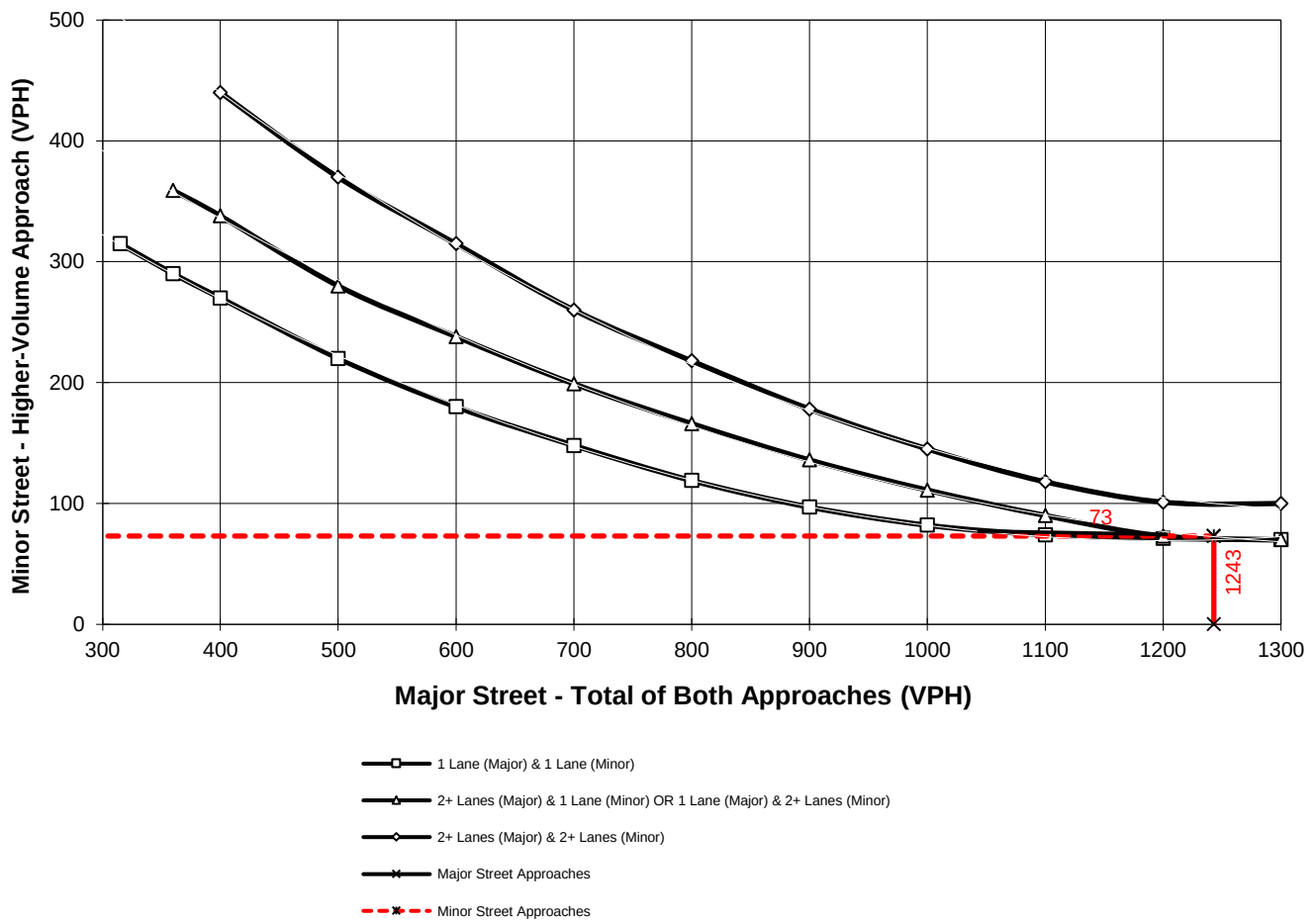
Major Street Name = **Portola Av.**

Total of Both Approaches (VPH) = **1,243**  
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Willow Ridge**

High Volume Approach (VPH) = **73**  
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes  
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP AM PEAK HOUR WARRANTS**

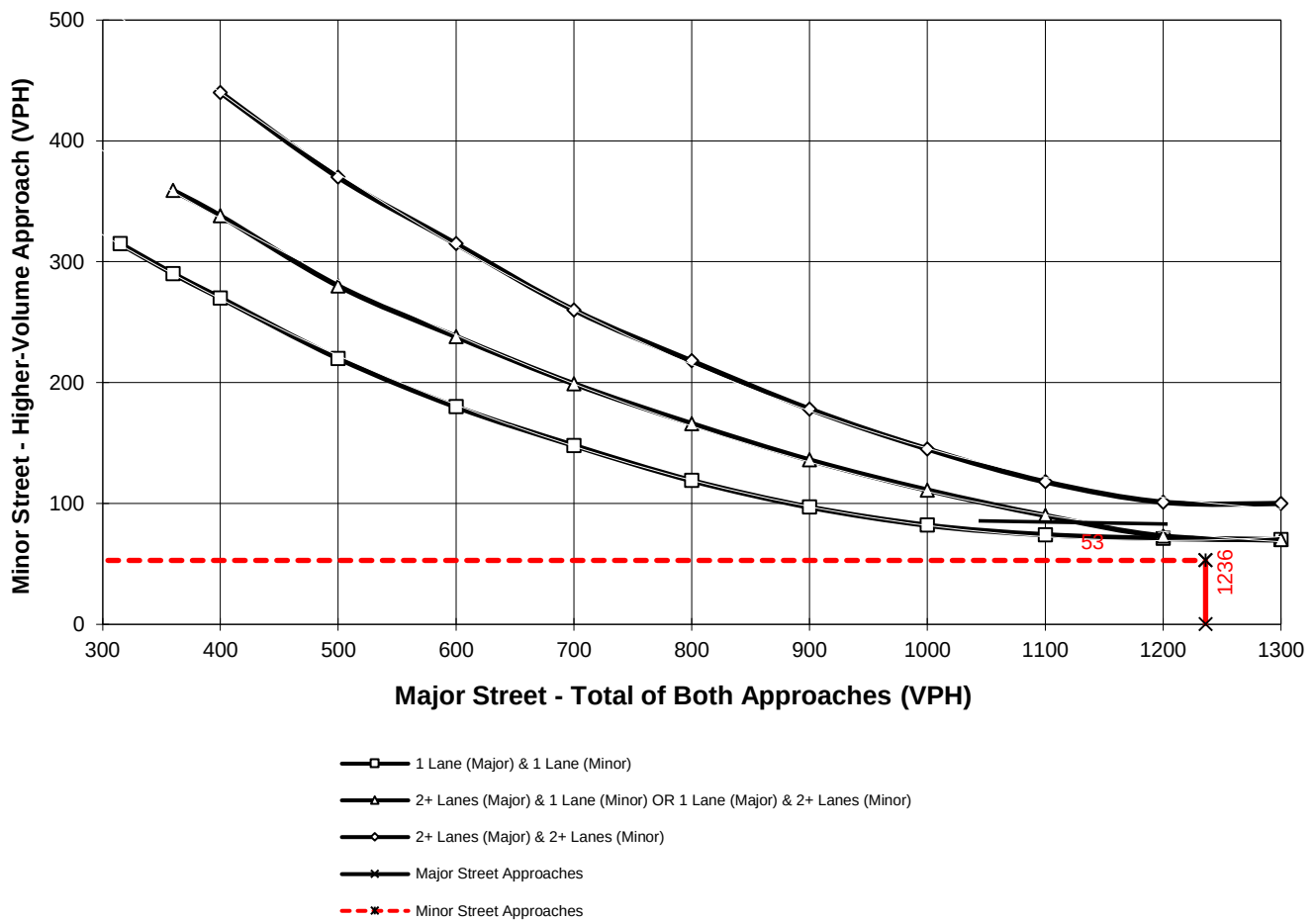
Major Street Name = **Portola Av.**

Total of Both Approaches (VPH) = **1,236**  
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Willow Ridge**

High Volume Approach (VPH) = **53**  
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes  
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC AM PEAK HOUR WARRANTS**

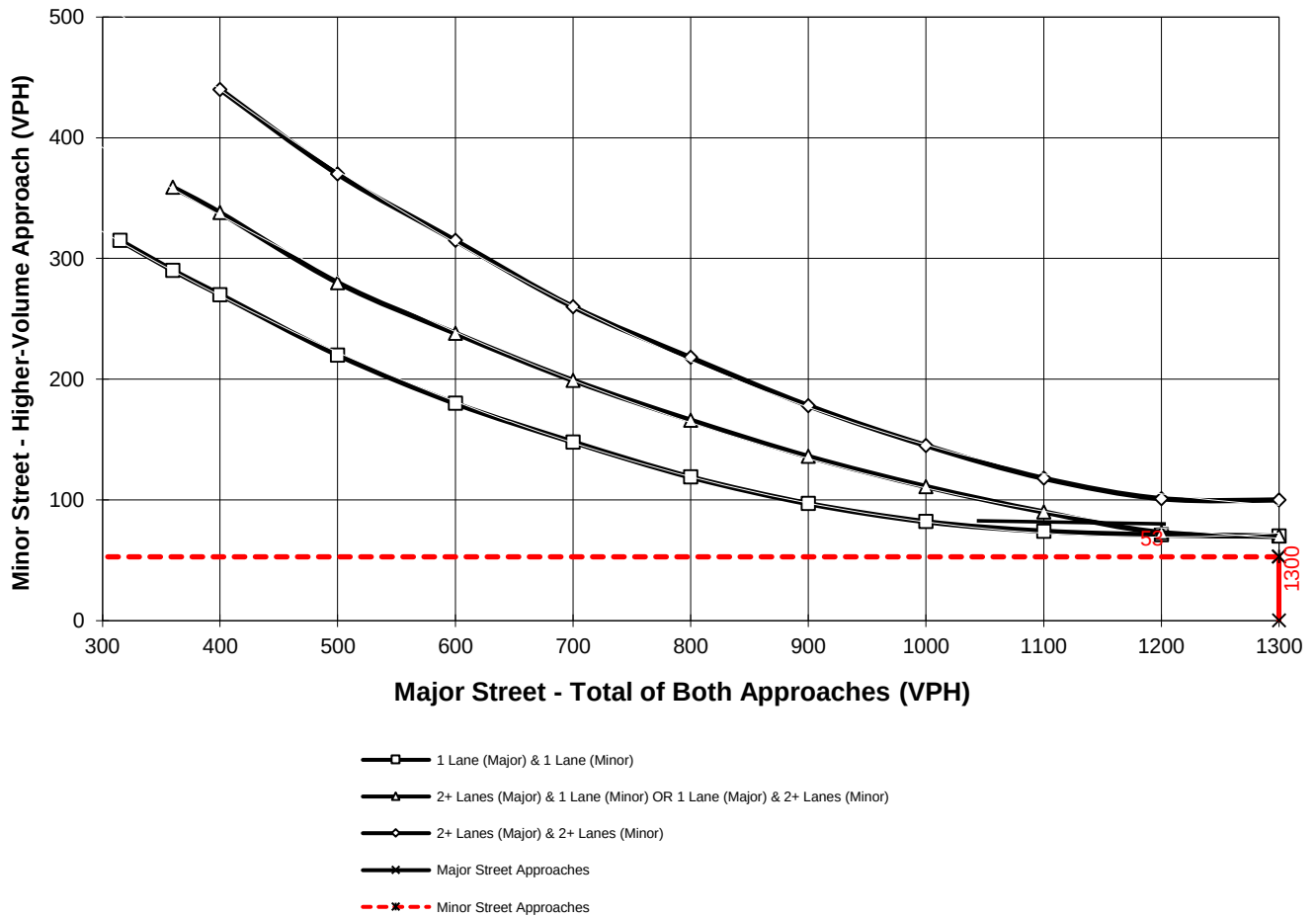
Major Street Name = **Portola Av.**

Total of Both Approaches (VPH) = **1,495**  
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Willow Ridge**

High Volume Approach (VPH) = **53**  
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes  
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

### Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC PM PEAK HOUR WARRANTS**

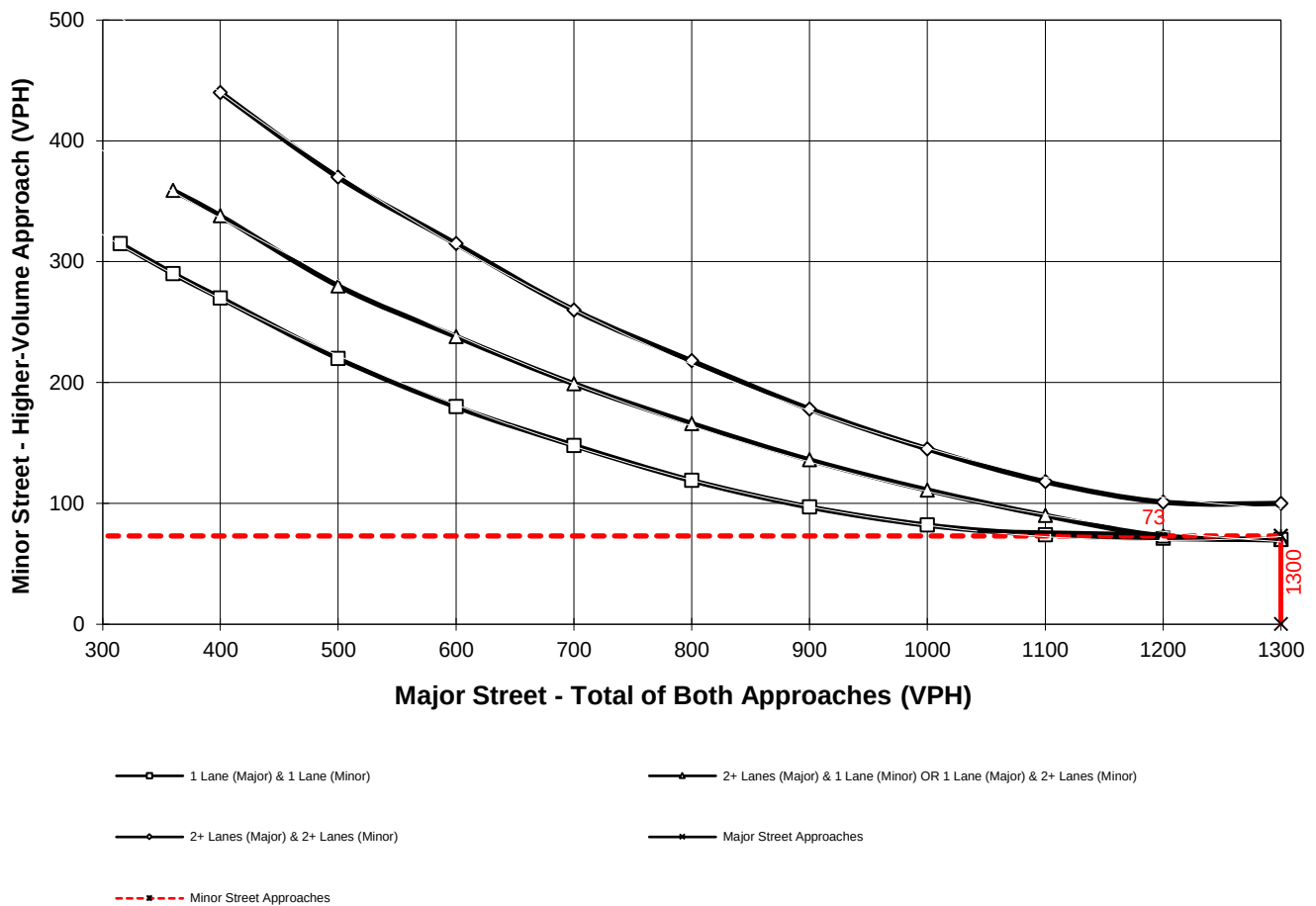
Major Street Name = **Portola Av.**

Total of Both Approaches (VPH) = **1,656**  
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Willow Ridge**

High Volume Approach (VPH) = **73**  
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**



\*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes  
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #8

## **APPENDIX 5.1:**

### **EAP (2024) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

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Lanes, Volumes, Timings  
1: Monterey Av. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 43                                                                                | 289                                                                               | 110                                                                               | 189                                                                               | 616                                                                               | 78                                                                                | 76                                                                                 | 603                                                                                 | 35                                                                                  | 57                                                                                  | 1229                                                                                | 96                                                                                  |
| Future Volume (vph)     | 43                                                                                | 289                                                                               | 110                                                                               | 189                                                                               | 616                                                                               | 78                                                                                | 76                                                                                 | 603                                                                                 | 35                                                                                  | 57                                                                                  | 1229                                                                                | 96                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 160                                                                               |                                                                                   | 150                                                                               | 140                                                                               |                                                                                   | 140                                                                               | 250                                                                                |                                                                                     | 150                                                                                 | 200                                                                                 |                                                                                     | 175                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 100                                                                               |                                                                                   |                                                                                   | 120                                                                               |                                                                                   |                                                                                   | 120                                                                                |                                                                                     |                                                                                     | 120                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1182                                                                              |                                                                                   |                                                                                   | 5371                                                                              |                                                                                   |                                                                                    | 1281                                                                                |                                                                                     |                                                                                     | 1753                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 16.1                                                                              |                                                                                   |                                                                                   | 73.2                                                                              |                                                                                   |                                                                                    | 15.9                                                                                |                                                                                     |                                                                                     | 21.7                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                               | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 48                                                                                | 321                                                                               | 122                                                                               | 210                                                                               | 684                                                                               | 87                                                                                | 84                                                                                 | 670                                                                                 | 39                                                                                  | 63                                                                                  | 1366                                                                                | 107                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 48                                                                                | 321                                                                               | 122                                                                               | 210                                                                               | 684                                                                               | 87                                                                                | 84                                                                                 | 709                                                                                 | 0                                                                                   | 63                                                                                  | 1366                                                                                | 107                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: Monterey Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 1: Monterey Av. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 43                                                                                | 289                                                                               | 110                                                                               | 189                                                                               | 616                                                                               | 78                                                                                | 76                                                                                  | 603                                                                                 | 35                                                                                  | 57                                                                                  | 1229                                                                                | 96                                                                                  |
| Future Volume (veh/h)        | 43                                                                                | 289                                                                               | 110                                                                               | 189                                                                               | 616                                                                               | 78                                                                                | 76                                                                                  | 603                                                                                 | 35                                                                                  | 57                                                                                  | 1229                                                                                | 96                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 48                                                                                | 321                                                                               | 122                                                                               | 210                                                                               | 684                                                                               | 87                                                                                | 84                                                                                  | 670                                                                                 | 39                                                                                  | 63                                                                                  | 1366                                                                                | 107                                                                                 |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 159                                                                               | 717                                                                               | 317                                                                               | 288                                                                               | 850                                                                               | 377                                                                               | 217                                                                                 | 1863                                                                                | 108                                                                                 | 187                                                                                 | 1883                                                                                | 582                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.20                                                                              | 0.20                                                                              | 0.08                                                                              | 0.24                                                                              | 0.24                                                                              | 0.06                                                                                | 0.38                                                                                | 0.38                                                                                | 0.05                                                                                | 0.37                                                                                | 0.37                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1573                                                                              | 3456                                                                              | 3554                                                                              | 1575                                                                              | 3456                                                                                | 4936                                                                                | 286                                                                                 | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 48                                                                                | 321                                                                               | 122                                                                               | 210                                                                               | 684                                                                               | 87                                                                                | 84                                                                                  | 461                                                                                 | 248                                                                                 | 63                                                                                  | 1366                                                                                | 107                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1573                                                                              | 1728                                                                              | 1777                                                                              | 1575                                                                              | 1728                                                                                | 1702                                                                                | 1818                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 0.8                                                                               | 4.8                                                                               | 4.0                                                                               | 3.6                                                                               | 10.9                                                                              | 2.7                                                                               | 1.4                                                                                 | 5.9                                                                                 | 5.9                                                                                 | 1.1                                                                                 | 13.8                                                                                | 2.8                                                                                 |
| Cycle Q Clear(g_c), s        | 0.8                                                                               | 4.8                                                                               | 4.0                                                                               | 3.6                                                                               | 10.9                                                                              | 2.7                                                                               | 1.4                                                                                 | 5.9                                                                                 | 5.9                                                                                 | 1.1                                                                                 | 13.8                                                                                | 2.8                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.16                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 159                                                                               | 717                                                                               | 317                                                                               | 288                                                                               | 850                                                                               | 377                                                                               | 217                                                                                 | 1285                                                                                | 686                                                                                 | 187                                                                                 | 1883                                                                                | 582                                                                                 |
| V/C Ratio(X)                 | 0.30                                                                              | 0.45                                                                              | 0.38                                                                              | 0.73                                                                              | 0.80                                                                              | 0.23                                                                              | 0.39                                                                                | 0.36                                                                                | 0.36                                                                                | 0.34                                                                                | 0.73                                                                                | 0.18                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                                 | 1285                                                                                | 686                                                                                 | 288                                                                                 | 1883                                                                                | 582                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.7                                                                              | 21.0                                                                              | 20.7                                                                              | 26.8                                                                              | 21.5                                                                              | 18.4                                                                              | 27.0                                                                                | 13.5                                                                                | 13.5                                                                                | 27.3                                                                                | 16.3                                                                                | 12.8                                                                                |
| Incr Delay (d2), s/veh       | 1.1                                                                               | 0.4                                                                               | 0.8                                                                               | 9.0                                                                               | 4.7                                                                               | 0.3                                                                               | 1.1                                                                                 | 0.8                                                                                 | 1.5                                                                                 | 1.1                                                                                 | 2.5                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.3                                                                               | 1.7                                                                               | 1.3                                                                               | 1.6                                                                               | 4.3                                                                               | 0.8                                                                               | 0.5                                                                                 | 1.8                                                                                 | 2.1                                                                                 | 0.4                                                                                 | 4.5                                                                                 | 0.9                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 28.8                                                                              | 21.5                                                                              | 21.5                                                                              | 35.9                                                                              | 26.2                                                                              | 18.7                                                                              | 28.1                                                                                | 14.2                                                                                | 14.9                                                                                | 28.4                                                                                | 18.8                                                                                | 13.5                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 | B                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 491                                                                               |                                                                                   |                                                                                   | 981                                                                               |                                                                                   |                                                                                   | 793                                                                                 |                                                                                     |                                                                                     | 1536                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 22.2                                                                              |                                                                                   |                                                                                   | 27.6                                                                              |                                                                                   |                                                                                   | 15.9                                                                                |                                                                                     |                                                                                     | 18.8                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.8                                                                               | 26.6                                                                              | 9.5                                                                               | 16.1                                                                              | 8.3                                                                               | 26.1                                                                              | 7.3                                                                                 | 18.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.1                                                                               | 7.9                                                                               | 5.6                                                                               | 6.8                                                                               | 3.4                                                                               | 15.8                                                                              | 2.8                                                                                 | 12.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.6                                                                               | 0.0                                                                               | 1.5                                                                               | 0.0                                                                               | 0.9                                                                               | 0.0                                                                                 | 1.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 20.9                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
2: Portola Av. & Central Access

EAP (2024) AM Peak Hour

|                         |  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |  |  |  |  |
| Traffic Volume (vph)    | 0                                                                                 | 36                                                                                | 16                                                                                | 563                                                                               | 595                                                                               | 24                                                                                |
| Future Volume (vph)     | 0                                                                                 | 36                                                                                | 16                                                                                | 563                                                                               | 595                                                                               | 24                                                                                |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Storage Length (ft)     | 0                                                                                 | 0                                                                                 | 220                                                                               |                                                                                   |                                                                                   | 90                                                                                |
| Storage Lanes           | 0                                                                                 | 1                                                                                 | 1                                                                                 |                                                                                   |                                                                                   | 1                                                                                 |
| Taper Length (ft)       | 90                                                                                |                                                                                   | 60                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                | 55                                                                                |                                                                                   |
| Link Distance (ft)      | 265                                                                               |                                                                                   |                                                                                   | 417                                                                               | 282                                                                               |                                                                                   |
| Travel Time (s)         | 6.0                                                                               |                                                                                   |                                                                                   | 5.2                                                                               | 3.5                                                                               |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 39                                                                                | 17                                                                                | 612                                                                               | 647                                                                               | 26                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 39                                                                                | 17                                                                                | 612                                                                               | 647                                                                               | 26                                                                                |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                              | Free                                                                              |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
2: Portola Av. & Central Access

EAP (2024) AM Peak Hour

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.4    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      |        | ↗      | ↘     | ↑↑↑    | ↑↑   | ↗    |
| Traffic Vol, veh/h       | 0      | 36     | 16    | 563    | 595  | 24   |
| Future Vol, veh/h        | 0      | 36     | 16    | 563    | 595  | 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      | 220   | -      | -    | 90   |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92    | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 39     | 17    | 612    | 647  | 26   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | -      | 324    | 673   | 0      | -    | 0    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Critical Hdwy            | -      | 6.94   | 4.14  | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.32   | 2.22  | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 672    | 914   | -      | -    | -    |
| Stage 1                  | 0      | -      | -     | -      | -    | -    |
| Stage 2                  | 0      | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 672    | 914   | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -      | -     | -      | -    | -    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 10.7   | 0.2    |       | 0      |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 914    | -      | 672   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.019  | -      | 0.058 | -      | -    |      |
| HCM Control Delay (s)    | 9      | -      | 10.7  | -      | -    |      |
| HCM Lane LOS             | A      | -      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | 0.2   | -      | -    |      |

Lanes, Volumes, Timings  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                         |  |                                                                                    |  |  |                                                                                    |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |   |                                                                                   |                                                                                   |   |  |                                                                                    |                                                                                     |  |                                                                                     |                                                                                     |  |
| Traffic Volume (vph)    | 23                                                                                | 426                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 777                                                                                                                                                                 | 19                                                                                | 0                                                                                  | 0                                                                                   | 73                                                                                  | 0                                                                                   | 0                                                                                   | 73                                                                                  |
| Future Volume (vph)     | 23                                                                                | 426                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 777                                                                                                                                                                 | 19                                                                                | 0                                                                                  | 0                                                                                   | 73                                                                                  | 0                                                                                   | 0                                                                                   | 73                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                                                                                                     | 150                                                                               | 150                                                                               |                                                                                                                                                                     | 50                                                                                | 0                                                                                  |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 150                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     | 1                                                                                 | 0                                                                                  |                                                                                     | 1                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                                                                                                     |                                                                                   | 90                                                                                 |                                                                                     |                                                                                     | 90                                                                                  |                                                                                     |                                                                                     |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 5371                                                                                                                                                                |                                                                                   |                                                                                   | 693                                                                                                                                                                 |                                                                                   |                                                                                    | 244                                                                                 |                                                                                     |                                                                                     | 810                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 73.2                                                                                                                                                                |                                                                                   |                                                                                   | 9.5                                                                                                                                                                 |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     | 18.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     | 5                                                                                 |                                                                                    |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.91                                                                              | 0.91                                                                                                                                                                | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                                                                                                | 0.91                                                                              | 0.91                                                                               | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Adj. Flow (vph)         | 25                                                                                | 468                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 854                                                                                                                                                                 | 21                                                                                | 0                                                                                  | 0                                                                                   | 80                                                                                  | 0                                                                                   | 0                                                                                   | 80                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 25                                                                                | 468                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 854                                                                                                                                                                 | 21                                                                                | 0                                                                                  | 0                                                                                   | 80                                                                                  | 0                                                                                   | 0                                                                                   | 80                                                                                  |
| Sign Control            |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Intersection Summary    |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:              | Other                                                                             |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |      |                                                                                    |      |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.4                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |      |                                                                                    |      |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT  | NBR                                                                                | SBL  | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |      |  |      |      |  |
| Traffic Vol, veh/h       | 23                                                                                | 426                                                                               | 0    | 0    | 777                                                                               | 19                                                                                | 0    | 0    | 73                                                                                 | 0    | 0    | 73                                                                                  |
| Future Vol, veh/h        | 23                                                                                | 426                                                                               | 0    | 0    | 777                                                                               | 19                                                                                | 0    | 0    | 73                                                                                 | 0    | 0    | 73                                                                                  |
| Conflicting Peds, #/hr   | 5                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 5                                                                                 | 0    | 0    | 0                                                                                  | 5    | 0    | 5                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop | Stop                                                                               | Stop | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -    | None                                                                               | -    | -    | None                                                                                |
| Storage Length           | 140                                                                               | -                                                                                 | -    | -    | -                                                                                 | 50                                                                                | -    | -    | 0                                                                                  | -    | -    | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                  | -    | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                  | -    | 0    | -                                                                                   |
| Peak Hour Factor         | 91                                                                                | 91                                                                                | 91   | 91   | 91                                                                                | 91                                                                                | 91   | 91   | 91                                                                                 | 91   | 91   | 91                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                  | 2    | 2    | 2                                                                                   |
| Mvmt Flow                | 25                                                                                | 468                                                                               | 0    | 0    | 854                                                                               | 21                                                                                | 0    | 0    | 80                                                                                 | 0    | 0    | 80                                                                                  |

| Major/Minor          | Major1 |   | Major2 |   | Minor1 |   | Minor2 |   |
|----------------------|--------|---|--------|---|--------|---|--------|---|
| Conflicting Flow All | 880    | 0 | -      | - | -      | 0 | -      | - |
| Stage 1              | -      | - | -      | - | -      | - | -      | - |
| Stage 2              | -      | - | -      | - | -      | - | -      | - |
| Critical Hdwy        | 4.14   | - | -      | - | -      | - | 6.94   | - |
| Critical Hdwy Stg 1  | -      | - | -      | - | -      | - | -      | - |
| Critical Hdwy Stg 2  | -      | - | -      | - | -      | - | -      | - |
| Follow-up Hdwy       | 2.22   | - | -      | - | -      | - | 3.32   | - |
| Pot Cap-1 Maneuver   | 764    | - | 0      | 0 | -      | - | 0      | 0 |
| Stage 1              | -      | - | 0      | 0 | -      | - | 0      | 0 |
| Stage 2              | -      | - | 0      | 0 | -      | - | 0      | 0 |
| Platoon blocked, %   | -      | - | -      | - | -      | - | -      | - |
| Mov Cap-1 Maneuver   | 760    | - | -      | - | -      | - | 768    | - |
| Mov Cap-2 Maneuver   | -      | - | -      | - | -      | - | -      | - |
| Stage 1              | -      | - | -      | - | -      | - | -      | - |
| Stage 2              | -      | - | -      | - | -      | - | -      | - |

| Approach             | EB  | WB | NB   | SB   |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 0.5 | 0  | 10.2 | 12.5 |
| HCM LOS              |     |    | B    | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 768   | 760   | -   | -   | -   | 562   |
| HCM Lane V/C Ratio    | 0.104 | 0.033 | -   | -   | -   | 0.143 |
| HCM Control Delay (s) | 10.2  | 9.9   | -   | -   | -   | 12.5  |
| HCM Lane LOS          | B     | A     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.3   | 0.1   | -   | -   | -   | 0.5   |

Lanes, Volumes, Timings  
4: Portola Av. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 60                                                                                | 309                                                                               | 130                                                                               | 145                                                                               | 621                                                                               | 19                                                                                | 124                                                                                | 377                                                                                 | 68                                                                                  | 34                                                                                  | 347                                                                                 | 21                                                                                  |
| Future Volume (vph)     | 60                                                                                | 309                                                                               | 130                                                                               | 145                                                                               | 621                                                                               | 19                                                                                | 124                                                                                | 377                                                                                 | 68                                                                                  | 34                                                                                  | 347                                                                                 | 21                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 120                                                                               |                                                                                   | 230                                                                               | 140                                                                               |                                                                                   | 100                                                                               | 260                                                                                |                                                                                     | 50                                                                                  | 180                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 120                                                                                |                                                                                     |                                                                                     | 190                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 693                                                                               |                                                                                   |                                                                                   | 4512                                                                              |                                                                                   |                                                                                    | 510                                                                                 |                                                                                     |                                                                                     | 1159                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 9.5                                                                               |                                                                                   |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                    | 6.3                                                                                 |                                                                                     |                                                                                     | 14.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                              | 0.88                                                                               | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                |
| Adj. Flow (vph)         | 68                                                                                | 351                                                                               | 148                                                                               | 165                                                                               | 706                                                                               | 22                                                                                | 141                                                                                | 428                                                                                 | 77                                                                                  | 39                                                                                  | 394                                                                                 | 24                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 68                                                                                | 351                                                                               | 148                                                                               | 165                                                                               | 706                                                                               | 22                                                                                | 141                                                                                | 428                                                                                 | 77                                                                                  | 39                                                                                  | 418                                                                                 | 0                                                                                   |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 10.0                                                                              | 20.5                                                                              | 20.5                                                                              | 9.5                                                                                | 20.5                                                                                | 20.5                                                                                | 9.5                                                                                 | 20.5                                                                                |                                                                                     |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 16.7%                                                                             | 34.2%                                                                             | 34.2%                                                                             | 15.8%                                                                              | 34.2%                                                                               | 34.2%                                                                               | 15.8%                                                                               | 34.2%                                                                               |                                                                                     |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |                                                                                     |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 4: Portola Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 20.5 s                                                                                     | 10 s                                                                                   | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 20.5 s                                                                                     | 9.5 s                                                                                  | 20.5 s                                                                                   |

# HCM 6th Signalized Intersection Summary 4: Portola Av. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                              |  |                                                                                    |  |  |                                                                                    |  |   |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (veh/h)       | 60                                                                                | 309                                                                                                                                                                 | 130                                                                               | 145                                                                               | 621                                                                                                                                                                 | 19                                                                                | 124                                                                                 | 377                                                                                                                                                                                                                                                         | 68                                                                                  | 34                                                                                  | 347                                                                                                                                                                                                                                                         | 21                                                                                  |
| Future Volume (veh/h)        | 60                                                                                | 309                                                                                                                                                                 | 130                                                                               | 145                                                                               | 621                                                                                                                                                                 | 19                                                                                | 124                                                                                 | 377                                                                                                                                                                                                                                                         | 68                                                                                  | 34                                                                                  | 347                                                                                                                                                                                                                                                         | 21                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 68                                                                                | 351                                                                                                                                                                 | 148                                                                               | 165                                                                               | 706                                                                                                                                                                 | 22                                                                                | 141                                                                                 | 428                                                                                                                                                                                                                                                         | 77                                                                                  | 39                                                                                  | 394                                                                                                                                                                                                                                                         | 24                                                                                  |
| Peak Hour Factor             | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 101                                                                               | 745                                                                                                                                                                 | 330                                                                               | 163                                                                               | 870                                                                                                                                                                 | 386                                                                               | 148                                                                                 | 1917                                                                                                                                                                                                                                                        | 593                                                                                 | 71                                                                                  | 1634                                                                                                                                                                                                                                                        | 98                                                                                  |
| Arrive On Green              | 0.06                                                                              | 0.21                                                                                                                                                                | 0.21                                                                              | 0.09                                                                              | 0.24                                                                                                                                                                | 0.24                                                                              | 0.08                                                                                | 0.38                                                                                                                                                                                                                                                        | 0.38                                                                                | 0.04                                                                                | 0.33                                                                                                                                                                                                                                                        | 0.33                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                                                                                                                | 1574                                                                              | 1781                                                                              | 3554                                                                                                                                                                | 1575                                                                              | 1781                                                                                | 5106                                                                                                                                                                                                                                                        | 1579                                                                                | 1781                                                                                | 4923                                                                                                                                                                                                                                                        | 297                                                                                 |
| Grp Volume(v), veh/h         | 68                                                                                | 351                                                                                                                                                                 | 148                                                                               | 165                                                                               | 706                                                                                                                                                                 | 22                                                                                | 141                                                                                 | 428                                                                                                                                                                                                                                                         | 77                                                                                  | 39                                                                                  | 271                                                                                                                                                                                                                                                         | 147                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                                                                                                                | 1574                                                                              | 1781                                                                              | 1777                                                                                                                                                                | 1575                                                                              | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1579                                                                                | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1815                                                                                |
| Q Serve(g_s), s              | 2.2                                                                               | 5.2                                                                                                                                                                 | 4.9                                                                               | 5.5                                                                               | 11.2                                                                                                                                                                | 0.6                                                                               | 4.7                                                                                 | 3.4                                                                                                                                                                                                                                                         | 1.9                                                                                 | 1.3                                                                                 | 3.5                                                                                                                                                                                                                                                         | 3.5                                                                                 |
| Cycle Q Clear(g_c), s        | 2.2                                                                               | 5.2                                                                                                                                                                 | 4.9                                                                               | 5.5                                                                               | 11.2                                                                                                                                                                | 0.6                                                                               | 4.7                                                                                 | 3.4                                                                                                                                                                                                                                                         | 1.9                                                                                 | 1.3                                                                                 | 3.5                                                                                                                                                                                                                                                         | 3.5                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.16                                                                                |
| Lane Grp Cap(c), veh/h       | 101                                                                               | 745                                                                                                                                                                 | 330                                                                               | 163                                                                               | 870                                                                                                                                                                 | 386                                                                               | 148                                                                                 | 1917                                                                                                                                                                                                                                                        | 593                                                                                 | 71                                                                                  | 1130                                                                                                                                                                                                                                                        | 603                                                                                 |
| V/C Ratio(X)                 | 0.68                                                                              | 0.47                                                                                                                                                                | 0.45                                                                              | 1.01                                                                              | 0.81                                                                                                                                                                | 0.06                                                                              | 0.95                                                                                | 0.22                                                                                                                                                                                                                                                        | 0.13                                                                                | 0.55                                                                                | 0.24                                                                                                                                                                                                                                                        | 0.24                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 948                                                                                                                                                                 | 420                                                                               | 163                                                                               | 977                                                                                                                                                                 | 433                                                                               | 148                                                                                 | 1917                                                                                                                                                                                                                                                        | 593                                                                                 | 148                                                                                 | 1130                                                                                                                                                                                                                                                        | 603                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.8                                                                              | 20.8                                                                                                                                                                | 20.7                                                                              | 27.3                                                                              | 21.3                                                                                                                                                                | 17.3                                                                              | 27.4                                                                                | 12.8                                                                                                                                                                                                                                                        | 12.3                                                                                | 28.3                                                                                | 14.5                                                                                                                                                                                                                                                        | 14.6                                                                                |
| Incr Delay (d2), s/veh       | 7.6                                                                               | 0.5                                                                                                                                                                 | 1.0                                                                               | 68.8                                                                              | 4.2                                                                                                                                                                 | 0.1                                                                               | 58.7                                                                                | 0.3                                                                                                                                                                                                                                                         | 0.5                                                                                 | 6.5                                                                                 | 0.5                                                                                                                                                                                                                                                         | 1.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.1                                                                               | 1.9                                                                                                                                                                 | 1.6                                                                               | 5.2                                                                               | 4.4                                                                                                                                                                 | 0.2                                                                               | 4.1                                                                                 | 1.0                                                                                                                                                                                                                                                         | 0.6                                                                                 | 0.6                                                                                 | 1.1                                                                                                                                                                                                                                                         | 1.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 35.4                                                                              | 21.3                                                                                                                                                                | 21.6                                                                              | 96.1                                                                              | 25.6                                                                                                                                                                | 17.4                                                                              | 86.1                                                                                | 13.0                                                                                                                                                                                                                                                        | 12.8                                                                                | 34.8                                                                                | 15.1                                                                                                                                                                                                                                                        | 15.5                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                   | C                                                                                 | F                                                                                 | C                                                                                                                                                                   | B                                                                                 | F                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   | C                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 567                                                                                                                                                                 |                                                                                   |                                                                                   | 893                                                                                                                                                                 |                                                                                   |                                                                                     | 646                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 457                                                                                                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 23.0                                                                                                                                                                |                                                                                   |                                                                                   | 38.4                                                                                                                                                                |                                                                                   |                                                                                     | 29.0                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     | 16.9                                                                                                                                                                                                                                                        |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                   | D                                                                                                                                                                   |                                                                                   |                                                                                     | C                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     | B                                                                                                                                                                                                                                                           |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                   | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                   | 6                                                                                 | 7                                                                                   | 8                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 6.9                                                                               | 26.5                                                                                                                                                                | 10.0                                                                              | 16.6                                                                              | 9.5                                                                                                                                                                 | 23.9                                                                              | 7.9                                                                                 | 18.7                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 16.5                                                                                                                                                                | 5.5                                                                               | 16.0                                                                              | 5.0                                                                                                                                                                 | 16.5                                                                              | 5.0                                                                                 | 16.5                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.3                                                                               | 5.4                                                                                                                                                                 | 7.5                                                                               | 7.2                                                                               | 6.7                                                                                                                                                                 | 5.5                                                                               | 4.2                                                                                 | 13.2                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.0                                                                                                                                                                 | 0.0                                                                               | 1.6                                                                               | 0.0                                                                                                                                                                 | 1.6                                                                               | 0.0                                                                                 | 1.3                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                     | 28.8                                                                              |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                     | C                                                                                 |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

Lanes, Volumes, Timings  
5: Cook St. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 184                                                                               | 126                                                                               | 123                                                                               | 59                                                                                | 244                                                                               | 49                                                                                | 104                                                                                | 593                                                                                 | 51                                                                                  | 43                                                                                  | 1088                                                                                | 409                                                                                 |
| Future Volume (vph)     | 184                                                                               | 126                                                                               | 123                                                                               | 59                                                                                | 244                                                                               | 49                                                                                | 104                                                                                | 593                                                                                 | 51                                                                                  | 43                                                                                  | 1088                                                                                | 409                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                   | 135                                                                               | 135                                                                               |                                                                                   | 260                                                                               | 140                                                                                |                                                                                     | 0                                                                                   | 210                                                                                 |                                                                                     | 220                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 210                                                                               |                                                                                   |                                                                                   | 110                                                                               |                                                                                   |                                                                                   | 110                                                                                |                                                                                     |                                                                                     | 140                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 4512                                                                              |                                                                                   |                                                                                   | 1444                                                                              |                                                                                   |                                                                                    | 671                                                                                 |                                                                                     |                                                                                     | 1610                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                   | 19.7                                                                              |                                                                                   |                                                                                    | 8.3                                                                                 |                                                                                     |                                                                                     | 20.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                               | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Adj. Flow (vph)         | 202                                                                               | 138                                                                               | 135                                                                               | 65                                                                                | 268                                                                               | 54                                                                                | 114                                                                                | 652                                                                                 | 56                                                                                  | 47                                                                                  | 1196                                                                                | 449                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 202                                                                               | 138                                                                               | 135                                                                               | 65                                                                                | 268                                                                               | 54                                                                                | 114                                                                                | 708                                                                                 | 0                                                                                   | 47                                                                                  | 1196                                                                                | 449                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 5: Cook St. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
5: Cook St. & Frank Sinatra Dr.

EAP (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 184                                                                               | 126                                                                               | 123                                                                               | 59                                                                                | 244                                                                               | 49                                                                                | 104                                                                                | 593                                                                                 | 51                                                                                  | 43                                                                                  | 1088                                                                                | 409                                                                                 |
| Future Volume (veh/h)        | 184                                                                               | 126                                                                               | 123                                                                               | 59                                                                                | 244                                                                               | 49                                                                                | 104                                                                                | 593                                                                                 | 51                                                                                  | 43                                                                                  | 1088                                                                                | 409                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                               | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 202                                                                               | 138                                                                               | 135                                                                               | 65                                                                                | 268                                                                               | 54                                                                                | 114                                                                                | 652                                                                                 | 56                                                                                  | 47                                                                                  | 1196                                                                                | 449                                                                                 |
| Peak Hour Factor             | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                               | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 288                                                                               | 577                                                                               | 255                                                                               | 191                                                                               | 477                                                                               | 210                                                                               | 245                                                                                | 1503                                                                                | 129                                                                                 | 156                                                                                 | 2187                                                                                | 676                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.16                                                                              | 0.16                                                                              | 0.06                                                                              | 0.13                                                                              | 0.13                                                                              | 0.07                                                                               | 0.45                                                                                | 0.45                                                                                | 0.06                                                                                | 0.57                                                                                | 0.57                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1570                                                                              | 3456                                                                              | 3554                                                                              | 1567                                                                              | 3456                                                                               | 3311                                                                                | 284                                                                                 | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 202                                                                               | 138                                                                               | 135                                                                               | 65                                                                                | 268                                                                               | 54                                                                                | 114                                                                                | 350                                                                                 | 358                                                                                 | 47                                                                                  | 1196                                                                                | 449                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1570                                                                              | 1728                                                                              | 1777                                                                              | 1567                                                                              | 1728                                                                               | 1777                                                                                | 1818                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 3.4                                                                               | 2.0                                                                               | 4.7                                                                               | 1.1                                                                               | 4.2                                                                               | 1.9                                                                               | 1.9                                                                                | 8.0                                                                                 | 8.0                                                                                 | 0.8                                                                                 | 8.8                                                                                 | 11.8                                                                                |
| Cycle Q Clear(g_c), s        | 3.4                                                                               | 2.0                                                                               | 4.7                                                                               | 1.1                                                                               | 4.2                                                                               | 1.9                                                                               | 1.9                                                                                | 8.0                                                                                 | 8.0                                                                                 | 0.8                                                                                 | 8.8                                                                                 | 11.8                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 0.16                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 288                                                                               | 577                                                                               | 255                                                                               | 191                                                                               | 477                                                                               | 210                                                                               | 245                                                                                | 806                                                                                 | 825                                                                                 | 156                                                                                 | 2187                                                                                | 676                                                                                 |
| V/C Ratio(X)                 | 0.70                                                                              | 0.24                                                                              | 0.53                                                                              | 0.34                                                                              | 0.56                                                                              | 0.26                                                                              | 0.47                                                                               | 0.43                                                                                | 0.43                                                                                | 0.30                                                                                | 0.55                                                                                | 0.66                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                               | 948                                                                               | 418                                                                               | 288                                                                                | 806                                                                                 | 825                                                                                 | 288                                                                                 | 2187                                                                                | 676                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.33                                                                                | 1.33                                                                                | 1.33                                                                                |
| Upstream Filter(I)           | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                |
| Uniform Delay (d), s/veh     | 26.8                                                                              | 21.9                                                                              | 23.0                                                                              | 27.3                                                                              | 24.3                                                                              | 23.3                                                                              | 26.8                                                                               | 11.1                                                                                | 11.1                                                                                | 27.3                                                                                | 9.3                                                                                 | 9.9                                                                                 |
| Incr Delay (d2), s/veh       | 6.9                                                                               | 0.2                                                                               | 1.6                                                                               | 1.1                                                                               | 1.0                                                                               | 0.6                                                                               | 1.4                                                                                | 1.7                                                                                 | 1.7                                                                                 | 1.0                                                                                 | 0.9                                                                                 | 4.7                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.5                                                                               | 0.7                                                                               | 1.6                                                                               | 0.4                                                                               | 1.6                                                                               | 0.6                                                                               | 0.7                                                                                | 2.6                                                                                 | 2.7                                                                                 | 0.3                                                                                 | 2.2                                                                                 | 3.4                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 33.7                                                                              | 22.1                                                                              | 24.6                                                                              | 28.4                                                                              | 25.4                                                                              | 23.9                                                                              | 28.2                                                                               | 12.8                                                                                | 12.8                                                                                | 28.3                                                                                | 10.2                                                                                | 14.7                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                  | B                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 475                                                                               |                                                                                   |                                                                                   | 387                                                                               |                                                                                   |                                                                                    | 822                                                                                 |                                                                                     |                                                                                     | 1692                                                                                |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                   | 25.7                                                                              |                                                                                   |                                                                                    | 14.9                                                                                |                                                                                     |                                                                                     | 11.9                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                  | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.2                                                                               | 31.2                                                                              | 7.8                                                                               | 13.7                                                                              | 8.8                                                                               | 29.7                                                                              | 9.5                                                                                | 12.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.8                                                                               | 10.0                                                                              | 3.1                                                                               | 6.7                                                                               | 3.9                                                                               | 13.8                                                                              | 5.4                                                                                | 6.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.1                                                                               | 0.0                                                                               | 0.7                                                                               | 0.0                                                                               | 2.4                                                                               | 0.0                                                                                | 1.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 16.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
6: Portola Av. & Retreat Circ. (N)

EAP (2024) AM Peak Hour

|                         |  |  |                                                                                                                                                                      |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |    |  |  |   |
| Traffic Volume (vph)    | 0                                                                                 | 9                                                                                 | 559                                                                                                                                                                                                                                                   | 4                                                                                 | 3                                                                                 | 619                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 9                                                                                 | 559                                                                                                                                                                                                                                                   | 4                                                                                 | 3                                                                                 | 619                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 217                                                                               |                                                                                   | 282                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 254                                                                                                                                                                 |
| Travel Time (s)         | 4.9                                                                               |                                                                                   | 3.5                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 3.1                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.84                                                                              | 0.84                                                                              | 0.84                                                                                                                                                                                                                                                  | 0.84                                                                              | 0.84                                                                              | 0.84                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 11                                                                                | 665                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 737                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 11                                                                                | 665                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 737                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |        |          |       |        |      |      |
|--------------------------|--------|----------|-------|--------|------|------|
| Int Delay, s/veh         | 0.1    |          |       |        |      |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗        | ↗↗↗   | ↗      | ↗    | ↗↗   |
| Traffic Vol, veh/h       | 0      | 9        | 559   | 4      | 3    | 619  |
| Future Vol, veh/h        | 0      | 9        | 559   | 4      | 3    | 619  |
| Conflicting Peds, #/hr   | 5      | 5        | 0     | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free  | Free   | Free | Free |
| RT Channelized           | -      | None     | -     | None   | -    | None |
| Storage Length           | -      | -        | -     | 150    | 150  | -    |
| Veh in Median Storage, # | 0      | -        | 0     | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0     | -      | -    | 0    |
| Peak Hour Factor         | 84     | 84       | 84    | 84     | 84   | 84   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 11       | 665   | 5      | 4    | 737  |
| Major/Minor              | Minor1 | Major1   |       | Major2 |      |      |
| Conflicting Flow All     | -      | 343      | 0     | 0      | 675  | 0    |
| Stage 1                  | -      | -        | -     | -      | -    | -    |
| Stage 2                  | -      | -        | -     | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -     | -      | 5.34 | -    |
| Critical Hdwy Stg 1      | -      | -        | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -     | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -     | -      | 3.12 | -    |
| Pot Cap-1 Maneuver       | 0      | 557      | -     | -      | 560  | -    |
| Stage 1                  | 0      | -        | -     | -      | -    | -    |
| Stage 2                  | 0      | -        | -     | -      | -    | -    |
| Platoon blocked, %       | -      | -        | -     | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 552      | -     | -      | 557  | -    |
| Mov Cap-2 Maneuver       | -      | -        | -     | -      | -    | -    |
| Stage 1                  | -      | -        | -     | -      | -    | -    |
| Stage 2                  | -      | -        | -     | -      | -    | -    |
| Approach                 | WB     | NB       |       | SB     |      |      |
| HCM Control Delay, s     | 11.7   | 0        |       | 0.1    |      |      |
| HCM LOS                  | B      |          |       |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |      |      |
| Capacity (veh/h)         | -      | -        | 552   | 557    | -    |      |
| HCM Lane V/C Ratio       | -      | -        | 0.019 | 0.006  | -    |      |
| HCM Control Delay (s)    | -      | -        | 11.7  | 11.5   | -    |      |
| HCM Lane LOS             | -      | -        | B     | B      | -    |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.1   | 0      | -    |      |

Lanes, Volumes, Timings  
7: Portola Av. & Retreat Circ. (S)

EAP (2024) AM Peak Hour

|                         |  |  |                                                                                                                                                                                                                                                        |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                                                                                                     | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |     |                                                                                   |                                                                                   |   |
| Traffic Volume (vph)    | 0                                                                                 | 1                                                                                 | 578                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 631                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 1                                                                                 | 578                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 631                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                                                                                                    | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                                                                                                         | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 243                                                                               |                                                                                   | 194                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 417                                                                                                                                                                 |
| Travel Time (s)         | 5.5                                                                               |                                                                                   | 2.4                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 5.2                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                                                                                                                                                                                    | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 1                                                                                 | 672                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 734                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 1                                                                                 | 673                                                                                                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 734                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
7: Portola Av. & Retreat Circ. (S)

EAP (2024) AM Peak Hour

| Intersection             |        |          |         |        |      |      |
|--------------------------|--------|----------|---------|--------|------|------|
| Int Delay, s/veh         | 0      |          |         |        |      |      |
| Movement                 | WBL    | WBR      | NBT     | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗ ↘ ↘ ↘  | ↗ ↘ ↘ ↘ |        |      | ↗ ↘  |
| Traffic Vol, veh/h       | 0      | 1        | 578     | 1      | 0    | 631  |
| Future Vol, veh/h        | 0      | 1        | 578     | 1      | 0    | 631  |
| Conflicting Peds, #/hr   | 5      | 5        | 0       | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free    | Free   | Free | Free |
| RT Channelized           | -      | None     | -       | None   | -    | None |
| Storage Length           | -      | -        | -       | -      | -    | -    |
| Veh in Median Storage, # | 0      | -        | 0       | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0       | -      | -    | 0    |
| Peak Hour Factor         | 86     | 86       | 86      | 86     | 86   | 86   |
| Heavy Vehicles, %        | 2      | 2        | 2       | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 1        | 672     | 1      | 0    | 734  |
| Major/Minor              | Minor1 | Major1   |         | Major2 |      |      |
| Conflicting Flow All     | -      | 347      | 0       | 0      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -       | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -        | -       | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -       | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -       | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 554      | -       | -      | 0    | -    |
| Stage 1                  | 0      | -        | -       | -      | 0    | -    |
| Stage 2                  | 0      | -        | -       | -      | 0    | -    |
| Platoon blocked, %       |        |          | -       | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 549      | -       | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -        | -       | -      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Approach                 | WB     | NB       |         | SB     |      |      |
| HCM Control Delay, s     | 11.6   | 0        |         | 0      |      |      |
| HCM LOS                  | B      |          |         |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |         | SBT    |      |      |
| Capacity (veh/h)         | -      | 549      |         | -      |      |      |
| HCM Lane V/C Ratio       | -      | 0.002    |         | -      |      |      |
| HCM Control Delay (s)    | -      | 11.6     |         | -      |      |      |
| HCM Lane LOS             | -      | B        |         | -      |      |      |
| HCM 95th %tile Q(veh)    | -      | 0        |         | -      |      |      |

Lanes, Volumes, Timings  
8: Portola Av. & Willow Ridge

EAP (2024) AM Peak Hour

|                         |  |  |                                                                                    |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                 | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |  |  |   |  |  |   |
| Traffic Volume (vph)    | 32                                                                                | 21                                                                                | 553                                                                                                                                                                 | 29                                                                                | 34                                                                                | 620                                                                                                                                                                 |
| Future Volume (vph)     | 32                                                                                | 21                                                                                | 553                                                                                                                                                                 | 29                                                                                | 34                                                                                | 620                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 0                                                                                 | 50                                                                                |                                                                                                                                                                     | 150                                                                               | 100                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                     |                                                                                   | 60                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                  |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 309                                                                               |                                                                                   | 2578                                                                                                                                                                |                                                                                   |                                                                                   | 801                                                                                                                                                                 |
| Travel Time (s)         | 7.0                                                                               |                                                                                   | 32.0                                                                                                                                                                |                                                                                   |                                                                                   | 9.9                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                |
| Adj. Flow (vph)         | 37                                                                                | 24                                                                                | 643                                                                                                                                                                 | 34                                                                                | 40                                                                                | 721                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 37                                                                                | 24                                                                                | 643                                                                                                                                                                 | 34                                                                                | 40                                                                                | 721                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
8: Portola Av. & Willow Ridge

EAP (2024) AM Peak Hour

Intersection

Int Delay, s/veh 0.9

| Movement                 | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 32                                                                                | 21                                                                                | 553                                                                               | 29                                                                                | 34                                                                                | 620                                                                               |
| Future Vol, veh/h        | 32                                                                                | 21                                                                                | 553                                                                               | 29                                                                                | 34                                                                                | 620                                                                               |
| Conflicting Peds, #/hr   | 5                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 50                                                                                | -                                                                                 | 150                                                                               | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 37                                                                                | 24                                                                                | 643                                                                               | 34                                                                                | 40                                                                                | 721                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1094   | 332    | 0      |
| Stage 1              | 648    | -      | -      |
| Stage 2              | 446    | -      | -      |
| 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   | 208    | 664    | -      |
| Stage 1              | 483    | -      | -      |
| Stage 2              | 612    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 197    | 658    | -      |
| Mov Cap-2 Maneuver   | 329    | -      | -      |
| Stage 1              | 481    | -      | -      |
| Stage 2              | 582    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 14.7 | 0  | 0.5 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1WBLn2 | SBL   | SBT   |
|-----------------------|-----|---------------|-------|-------|
| Capacity (veh/h)      | -   | -             | 329   | 658   |
| HCM Lane V/C Ratio    | -   | -             | 0.113 | 0.037 |
| HCM Control Delay (s) | -   | -             | 17.3  | 10.7  |
| HCM Lane LOS          | -   | -             | C     | B     |
| HCM 95th %tile Q(veh) | -   | -             | 0.4   | 0.1   |

Lanes, Volumes, Timings  
9: Portola Av. & Country Club Dr.

EAP (2024) AM Peak Hour

|                         |  |       |       |       |       |       |       |       |       |       |       |       |
|-------------------------|------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group              | EBL                                                                                | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations     |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Traffic Volume (vph)    | 46                                                                                 | 372   | 157   | 166   | 713   | 89    | 206   | 431   | 139   | 80    | 458   | 54    |
| Future Volume (vph)     | 46                                                                                 | 372   | 157   | 166   | 713   | 89    | 206   | 431   | 139   | 80    | 458   | 54    |
| Ideal Flow (vphpl)      | 1900                                                                               | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)     | 200                                                                                |       | 105   | 180   |       | 80    | 160   |       | 135   | 200   |       | 50    |
| Storage Lanes           | 1                                                                                  |       | 1     | 1     |       | 1     | 1     |       | 1     | 1     |       | 1     |
| Taper Length (ft)       | 120                                                                                |       |       | 90    |       |       | 100   |       |       | 60    |       |       |
| Right Turn on Red       |                                                                                    |       | Yes   |       |       | Yes   |       |       | Yes   |       |       | Yes   |
| Link Speed (mph)        |                                                                                    | 50    |       |       | 50    |       |       | 55    |       |       | 55    |       |
| Link Distance (ft)      |                                                                                    | 1030  |       |       | 784   |       |       | 945   |       |       | 2578  |       |
| Travel Time (s)         |                                                                                    | 14.0  |       |       | 10.7  |       |       | 11.7  |       |       | 32.0  |       |
| Confl. Peds. (#/hr)     | 5                                                                                  |       | 5     | 5     |       | 5     | 5     |       | 5     | 5     |       | 5     |
| Peak Hour Factor        | 0.85                                                                               | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  | 0.85  |
| Adj. Flow (vph)         | 54                                                                                 | 438   | 185   | 195   | 839   | 105   | 242   | 507   | 164   | 94    | 539   | 64    |
| Shared Lane Traffic (%) |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Lane Group Flow (vph)   | 54                                                                                 | 438   | 185   | 195   | 839   | 105   | 242   | 507   | 164   | 94    | 539   | 64    |
| Turn Type               | Prot                                                                               | NA    | Perm  | Prot  | NA    | Perm  | Prot  | NA    | Perm  | Prot  | NA    | Perm  |
| Protected Phases        | 7                                                                                  | 4     |       | 3     | 8     |       | 5     | 2     |       | 1     | 6     |       |
| Permitted Phases        |                                                                                    |       | 4     |       |       | 8     |       |       | 2     |       |       | 6     |
| Detector Phase          | 7                                                                                  | 4     | 4     | 3     | 8     | 8     | 5     | 2     | 2     | 1     | 6     | 6     |
| Switch Phase            |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Minimum Initial (s)     | 5.0                                                                                | 4.0   | 4.0   | 5.0   | 4.0   | 4.0   | 5.0   | 4.0   | 4.0   | 5.0   | 4.0   | 4.0   |
| Minimum Split (s)       | 9.5                                                                                | 20.0  | 20.0  | 9.5   | 20.0  | 20.0  | 9.5   | 20.0  | 20.0  | 9.5   | 20.0  | 20.0  |
| Total Split (s)         | 14.0                                                                               | 28.8  | 28.8  | 27.2  | 42.0  | 42.0  | 31.0  | 46.6  | 46.6  | 17.4  | 33.0  | 33.0  |
| Total Split (%)         | 11.7%                                                                              | 24.0% | 24.0% | 22.7% | 35.0% | 35.0% | 25.8% | 38.8% | 38.8% | 14.5% | 27.5% | 27.5% |
| Yellow Time (s)         | 3.5                                                                                | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   | 3.5   |
| All-Red Time (s)        | 1.0                                                                                | 0.5   | 0.5   | 1.0   | 0.5   | 0.5   | 1.0   | 0.5   | 0.5   | 1.0   | 0.5   | 0.5   |
| Lost Time Adjust (s)    | 0.0                                                                                | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)     | 4.5                                                                                | 4.0   | 4.0   | 4.5   | 4.0   | 4.0   | 4.5   | 4.0   | 4.0   | 4.5   | 4.0   | 4.0   |
| Lead/Lag                | Lead                                                                               | Lag   | Lag   | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   | Lead  | Lag   | Lag   |
| Lead-Lag Optimize?      | Yes                                                                                | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Recall Mode             | None                                                                               | None  | None  | None  | None  | None  | None  | C-Max | C-Max | None  | C-Max | C-Max |

Intersection Summary

Area Type: Other

Cycle Length: 120

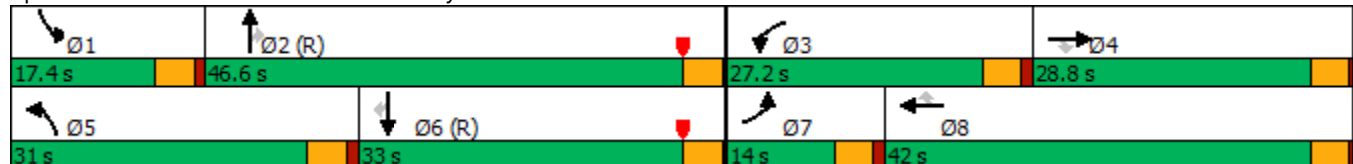
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 9: Portola Av. & Country Club Dr.



HCM 6th Signalized Intersection Summary  
9: Portola Av. & Country Club Dr.

EAP (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 46                                                                                | 372                                                                               | 157                                                                               | 166                                                                               | 713                                                                               | 89                                                                                | 206                                                                                 | 431                                                                                 | 139                                                                                 | 80                                                                                  | 458                                                                                 | 54                                                                                  |
| Future Volume (veh/h)        | 46                                                                                | 372                                                                               | 157                                                                               | 166                                                                               | 713                                                                               | 89                                                                                | 206                                                                                 | 431                                                                                 | 139                                                                                 | 80                                                                                  | 458                                                                                 | 54                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 54                                                                                | 438                                                                               | 185                                                                               | 195                                                                               | 839                                                                               | 105                                                                               | 242                                                                                 | 507                                                                                 | 164                                                                                 | 94                                                                                  | 539                                                                                 | 64                                                                                  |
| Peak Hour Factor             | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 70                                                                                | 657                                                                               | 291                                                                               | 225                                                                               | 967                                                                               | 429                                                                               | 273                                                                                 | 1709                                                                                | 760                                                                                 | 118                                                                                 | 1400                                                                                | 622                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.18                                                                              | 0.18                                                                              | 0.13                                                                              | 0.27                                                                              | 0.27                                                                              | 0.15                                                                                | 0.48                                                                                | 0.48                                                                                | 0.07                                                                                | 0.39                                                                                | 0.39                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1572                                                                              | 1781                                                                              | 3554                                                                              | 1576                                                                              | 1781                                                                                | 3554                                                                                | 1580                                                                                | 1781                                                                                | 3554                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 54                                                                                | 438                                                                               | 185                                                                               | 195                                                                               | 839                                                                               | 105                                                                               | 242                                                                                 | 507                                                                                 | 164                                                                                 | 94                                                                                  | 539                                                                                 | 64                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1572                                                                              | 1781                                                                              | 1777                                                                              | 1576                                                                              | 1781                                                                                | 1777                                                                                | 1580                                                                                | 1781                                                                                | 1777                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 3.6                                                                               | 13.8                                                                              | 13.0                                                                              | 12.9                                                                              | 27.0                                                                              | 6.2                                                                               | 16.0                                                                                | 10.4                                                                                | 7.2                                                                                 | 6.2                                                                                 | 13.0                                                                                | 3.1                                                                                 |
| Cycle Q Clear(g_c), s        | 3.6                                                                               | 13.8                                                                              | 13.0                                                                              | 12.9                                                                              | 27.0                                                                              | 6.2                                                                               | 16.0                                                                                | 10.4                                                                                | 7.2                                                                                 | 6.2                                                                                 | 13.0                                                                                | 3.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 70                                                                                | 657                                                                               | 291                                                                               | 225                                                                               | 967                                                                               | 429                                                                               | 273                                                                                 | 1709                                                                                | 760                                                                                 | 118                                                                                 | 1400                                                                                | 622                                                                                 |
| V/C Ratio(X)                 | 0.77                                                                              | 0.67                                                                              | 0.64                                                                              | 0.87                                                                              | 0.87                                                                              | 0.24                                                                              | 0.89                                                                                | 0.30                                                                                | 0.22                                                                                | 0.80                                                                                | 0.38                                                                                | 0.10                                                                                |
| Avail Cap(c_a), veh/h        | 141                                                                               | 734                                                                               | 325                                                                               | 337                                                                               | 1125                                                                              | 499                                                                               | 393                                                                                 | 1709                                                                                | 760                                                                                 | 191                                                                                 | 1400                                                                                | 622                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 57.1                                                                              | 45.5                                                                              | 45.2                                                                              | 51.4                                                                              | 41.6                                                                              | 34.1                                                                              | 49.8                                                                                | 18.9                                                                                | 18.0                                                                                | 55.2                                                                                | 26.0                                                                                | 23.0                                                                                |
| Incr Delay (d2), s/veh       | 16.5                                                                              | 2.0                                                                               | 3.5                                                                               | 14.3                                                                              | 6.6                                                                               | 0.3                                                                               | 15.7                                                                                | 0.4                                                                                 | 0.7                                                                                 | 11.5                                                                                | 0.8                                                                                 | 0.3                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.9                                                                               | 6.0                                                                               | 5.2                                                                               | 6.4                                                                               | 12.1                                                                              | 2.3                                                                               | 8.0                                                                                 | 4.0                                                                                 | 2.6                                                                                 | 3.1                                                                                 | 5.3                                                                                 | 1.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 73.6                                                                              | 47.5                                                                              | 48.6                                                                              | 65.7                                                                              | 48.2                                                                              | 34.4                                                                              | 65.5                                                                                | 19.3                                                                                | 18.7                                                                                | 66.7                                                                                | 26.8                                                                                | 23.3                                                                                |
| LnGrp LOS                    | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | D                                                                                 | C                                                                                 | E                                                                                   | B                                                                                   | B                                                                                   | E                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 677                                                                               |                                                                                   |                                                                                   |                                                                                   | 1139                                                                              |                                                                                   |                                                                                     |                                                                                     | 913                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 49.9                                                                              |                                                                                   |                                                                                   |                                                                                   | 49.9                                                                              |                                                                                   |                                                                                     |                                                                                     | 31.4                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 12.4                                                                              | 61.7                                                                              | 19.7                                                                              | 26.2                                                                              | 22.9                                                                              | 51.3                                                                              | 9.2                                                                                 | 36.6                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 12.9                                                                              | 42.6                                                                              | 22.7                                                                              | 24.8                                                                              | 26.5                                                                              | 29.0                                                                              | 9.5                                                                                 | 38.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 8.2                                                                               | 12.4                                                                              | 14.9                                                                              | 15.8                                                                              | 18.0                                                                              | 15.0                                                                              | 5.6                                                                                 | 29.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 3.6                                                                               | 0.3                                                                               | 2.1                                                                               | 0.4                                                                               | 2.8                                                                               | 0.0                                                                                 | 3.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 41.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
10: Portola Av. & South Access

EAP (2024) AM Peak Hour

|                         |  |  |  |                                                                                                                                                                      |                                                                                    |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                                                                                                                                                                                                   | SBT                                                                                                                                                                 | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |                                                                                   |    |   |                                                                                   |
| Traffic Volume (vph)    | 0                                                                                 | 12                                                                                | 0                                                                                 | 579                                                                                                                                                                                                                                                   | 631                                                                                                                                                                 | 0                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 12                                                                                | 0                                                                                 | 579                                                                                                                                                                                                                                                   | 631                                                                                                                                                                 | 0                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                                                                                                                | 1900                                                                              |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                                                                                                                                                                                    | 55                                                                                                                                                                  |                                                                                   |
| Link Distance (ft)      | 244                                                                               |                                                                                   |                                                                                   | 468                                                                                                                                                                                                                                                   | 194                                                                                                                                                                 |                                                                                   |
| Travel Time (s)         | 5.5                                                                               |                                                                                   |                                                                                   | 5.8                                                                                                                                                                                                                                                   | 2.4                                                                                                                                                                 |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                                                                                                                | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 13                                                                                | 0                                                                                 | 629                                                                                                                                                                                                                                                   | 686                                                                                                                                                                 | 0                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 13                                                                                | 0                                                                                 | 629                                                                                                                                                                                                                                                   | 686                                                                                                                                                                 | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                                                                                                                                                                                                  | Free                                                                                                                                                                |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |

HCM 6th TWSC  
10: Portola Av. & South Access

EAP (2024) AM Peak Hour

| Intersection             |           |        |      |        |      |      |
|--------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh         | 0.1       |        |      |        |      |      |
| Movement                 | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations      |           | ↗      |      | ↑↑↑    | ↑↑   |      |
| Traffic Vol, veh/h       | 0         | 12     | 0    | 579    | 631  | 0    |
| Future Vol, veh/h        | 0         | 12     | 0    | 579    | 631  | 0    |
| Conflicting Peds, #/hr   | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control             | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized           | -         | None   | -    | None   | -    | None |
| Storage Length           | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, # | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                 | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor         | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0         | 13     | 0    | 629    | 686  | 0    |
|                          |           |        |      |        |      |      |
| Major/Minor              | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All     | -         | 343    | -    | 0      | -    | 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         | 653    | 0    | -      | -    | 0    |
| Stage 1                  | 0         | -      | 0    | -      | -    | 0    |
| Stage 2                  | 0         | -      | 0    | -      | -    | 0    |
| Platoon blocked, %       |           |        |      | -      | -    |      |
| Mov Cap-1 Maneuver       | -         | 653    | -    | -      | -    | -    |
| Mov Cap-2 Maneuver       | -         | -      | -    | -      | -    | -    |
| Stage 1                  | -         | -      | -    | -      | -    | -    |
| Stage 2                  | -         | -      | -    | -      | -    | -    |
|                          |           |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Approach                 | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s     | 10.6      | 0      |      | 0      |      |      |
| HCM LOS                  | B         |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT EBLn1 |        | SBT  |        |      |      |
| Capacity (veh/h)         | - 653     |        | -    |        |      |      |
| HCM Lane V/C Ratio       | - 0.02    |        | -    |        |      |      |
| HCM Control Delay (s)    | - 10.6    |        | -    |        |      |      |
| HCM Lane LOS             | - B       |        | -    |        |      |      |
| HCM 95th %tile Q(veh)    | - 0.1     |        | -    |        |      |      |

Lanes, Volumes, Timings  
11: Cook St. & University Park Dr./Berger Dr.

EAP (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 32                                                                                | 0                                                                                 | 18                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 805                                                                                 | 10                                                                                  | 49                                                                                  | 1519                                                                                | 16                                                                                  |
| Future Volume (vph)     | 32                                                                                | 0                                                                                 | 18                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 805                                                                                 | 10                                                                                  | 49                                                                                  | 1519                                                                                | 16                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 180                                                                               |                                                                                   | 180                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 140                                                                                 |                                                                                     | 140                                                                                 | 225                                                                                 |                                                                                     | 295                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 160                                                                                 |                                                                                     |                                                                                     | 165                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 460                                                                               |                                                                                   |                                                                                     | 1610                                                                                |                                                                                     |                                                                                     | 602                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 10.2                                                                              |                                                                                   |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                     | 20.0                                                                                |                                                                                     |                                                                                     | 7.5                                                                                 |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 36                                                                                | 0                                                                                 | 20                                                                                | 3                                                                                 | 1                                                                                 | 11                                                                                | 11                                                                                  | 894                                                                                 | 11                                                                                  | 54                                                                                  | 1688                                                                                | 18                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 36                                                                                | 0                                                                                 | 20                                                                                | 3                                                                                 | 1                                                                                 | 11                                                                                | 11                                                                                  | 894                                                                                 | 11                                                                                  | 54                                                                                  | 1688                                                                                | 18                                                                                  |
| Turn Type               | Prot                                                                              |                                                                                   | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 11: Cook St. & University Park Dr./Berger Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
11: Cook St. & University Park Dr./Berger Dr.

EAP (2024) AM Peak Hour

|                              |  |  |  |  |  |  |   |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 32                                                                                | 0                                                                                 | 18                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 805                                                                                 | 10                                                                                  | 49                                                                                  | 1519                                                                                | 16                                                                                  |
| Future Volume (veh/h)        | 32                                                                                | 0                                                                                 | 18                                                                                | 3                                                                                 | 1                                                                                 | 10                                                                                | 10                                                                                  | 805                                                                                 | 10                                                                                  | 49                                                                                  | 1519                                                                                | 16                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 36                                                                                | 0                                                                                 | 20                                                                                | 3                                                                                 | 1                                                                                 | 0                                                                                 | 11                                                                                  | 894                                                                                 | 0                                                                                   | 54                                                                                  | 1688                                                                                | 18                                                                                  |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 67                                                                                | 141                                                                               | 117                                                                               | 7                                                                                 | 78                                                                                |                                                                                   | 25                                                                                  | 3001                                                                                |                                                                                     | 171                                                                                 | 3182                                                                                | 984                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.00                                                                              | 0.08                                                                              | 0.00                                                                              | 0.04                                                                              | 0.00                                                                              | 0.03                                                                                | 1.00                                                                                | 0.00                                                                                | 0.05                                                                                | 0.62                                                                                | 0.62                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 1870                                                                              | 1554                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 5106                                                                                | 1585                                                                                | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 36                                                                                | 0                                                                                 | 20                                                                                | 3                                                                                 | 1                                                                                 | 0                                                                                 | 11                                                                                  | 894                                                                                 | 0                                                                                   | 54                                                                                  | 1688                                                                                | 18                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1870                                                                              | 1554                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 1702                                                                                | 1585                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 1.2                                                                               | 0.0                                                                               | 0.7                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 11.2                                                                                | 0.3                                                                                 |
| Cycle Q Clear(g_c), s        | 1.2                                                                               | 0.0                                                                               | 0.7                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 11.2                                                                                | 0.3                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 67                                                                                | 141                                                                               | 117                                                                               | 7                                                                                 | 78                                                                                |                                                                                   | 25                                                                                  | 3001                                                                                |                                                                                     | 171                                                                                 | 3182                                                                                | 984                                                                                 |
| V/C Ratio(X)                 | 0.54                                                                              | 0.00                                                                              | 0.17                                                                              | 0.41                                                                              | 0.01                                                                              |                                                                                   | 0.44                                                                                | 0.30                                                                                |                                                                                     | 0.32                                                                                | 0.53                                                                                | 0.02                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 499                                                                               | 414                                                                               | 148                                                                               | 499                                                                               |                                                                                   | 148                                                                                 | 3001                                                                                |                                                                                     | 288                                                                                 | 3182                                                                                | 984                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.86                                                                                | 0.86                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 28.4                                                                              | 0.0                                                                               | 26.0                                                                              | 29.8                                                                              | 27.6                                                                              | 0.0                                                                               | 28.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 27.5                                                                                | 6.4                                                                                 | 4.3                                                                                 |
| Incr Delay (d2), s/veh       | 6.5                                                                               | 0.0                                                                               | 0.7                                                                               | 33.7                                                                              | 0.1                                                                               | 0.0                                                                               | 10.3                                                                                | 0.2                                                                                 | 0.0                                                                                 | 1.0                                                                                 | 0.6                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.6                                                                               | 0.0                                                                               | 0.3                                                                               | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 2.1                                                                                 | 0.1                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 34.9                                                                              | 0.0                                                                               | 26.7                                                                              | 63.5                                                                              | 27.6                                                                              | 0.0                                                                               | 39.2                                                                                | 0.2                                                                                 | 0.0                                                                                 | 28.6                                                                                | 7.0                                                                                 | 4.3                                                                                 |
| LnGrp LOS                    | C                                                                                 | A                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 |                                                                                   | D                                                                                   | A                                                                                   |                                                                                     | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 56                                                                                |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 905                                                                                 |                                                                                     |                                                                                     | 1760                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 32.0                                                                              |                                                                                   |                                                                                   | 54.5                                                                              |                                                                                   |                                                                                   | 0.7                                                                                 |                                                                                     |                                                                                     | 7.6                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.5                                                                               | 39.3                                                                              | 4.7                                                                               | 8.5                                                                               | 5.3                                                                               | 41.4                                                                              | 6.8                                                                                 | 6.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.9                                                                               | 2.0                                                                               | 2.1                                                                               | 2.7                                                                               | 2.4                                                                               | 13.2                                                                              | 3.2                                                                                 | 2.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 4.7                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 3.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 5.9                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
1: Monterey Av. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                         |                                                                                    |                                                                                    |  |                                                                                    |                                                                                    |  |                                                                                      |                                                                                                                                                                          |  |                                                                                      |                                                                                                                                                                          |  |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                                                                                                 | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                                                                                                                 | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                                                                                                     | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations     |   |   |  |   |   |  |   |    |                                                                                     |   |    |  |
| Traffic Volume (vph)    | 126                                                                                                                                                                 | 608                                                                                                                                                                 | 129                                                                               | 146                                                                                                                                                                 | 374                                                                                                                                                                 | 79                                                                                | 122                                                                                                                                                                     | 1268                                                                                                                                                                                                                                                        | 131                                                                                 | 106                                                                                                                                                                     | 1030                                                                                                                                                                                                                                                        | 63                                                                                  |
| Future Volume (vph)     | 126                                                                                                                                                                 | 608                                                                                                                                                                 | 129                                                                               | 146                                                                                                                                                                 | 374                                                                                                                                                                 | 79                                                                                | 122                                                                                                                                                                     | 1268                                                                                                                                                                                                                                                        | 131                                                                                 | 106                                                                                                                                                                     | 1030                                                                                                                                                                                                                                                        | 63                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                                                                                                    | 1900                                                                                                                                                                                                                                                        | 1900                                                                                | 1900                                                                                                                                                                    | 1900                                                                                                                                                                                                                                                        | 1900                                                                                |
| Storage Length (ft)     | 160                                                                                                                                                                 |                                                                                                                                                                     | 150                                                                               | 140                                                                                                                                                                 |                                                                                                                                                                     | 140                                                                               | 250                                                                                                                                                                     |                                                                                                                                                                                                                                                             | 150                                                                                 | 200                                                                                                                                                                     |                                                                                                                                                                                                                                                             | 175                                                                                 |
| Storage Lanes           | 2                                                                                                                                                                   |                                                                                                                                                                     | 1                                                                                 | 2                                                                                                                                                                   |                                                                                                                                                                     | 1                                                                                 | 2                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 0                                                                                   | 2                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 1                                                                                   |
| Taper Length (ft)       | 100                                                                                                                                                                 |                                                                                                                                                                     |                                                                                   | 120                                                                                                                                                                 |                                                                                                                                                                     |                                                                                   | 120                                                                                                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     | 120                                                                                                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Right Turn on Red       |                                                                                                                                                                     |                                                                                                                                                                     | Yes                                                                               |                                                                                                                                                                     |                                                                                                                                                                     | Yes                                                                               |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | Yes                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | Yes                                                                                 |
| Link Speed (mph)        |                                                                                                                                                                     | 50                                                                                                                                                                  |                                                                                   |                                                                                                                                                                     | 50                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 55                                                                                                                                                                                                                                                          |                                                                                     |                                                                                                                                                                         | 55                                                                                                                                                                                                                                                          |                                                                                     |
| Link Distance (ft)      |                                                                                                                                                                     | 1182                                                                                                                                                                |                                                                                   |                                                                                                                                                                     | 5371                                                                                                                                                                |                                                                                   |                                                                                                                                                                         | 1281                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                         | 1753                                                                                                                                                                                                                                                        |                                                                                     |
| Travel Time (s)         |                                                                                                                                                                     | 16.1                                                                                                                                                                |                                                                                   |                                                                                                                                                                     | 73.2                                                                                                                                                                |                                                                                   |                                                                                                                                                                         | 15.9                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                         | 21.7                                                                                                                                                                                                                                                        |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                                                                                                   |                                                                                                                                                                     | 5                                                                                 | 5                                                                                                                                                                   |                                                                                                                                                                     | 5                                                                                 | 5                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 5                                                                                   | 5                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 5                                                                                   |
| Peak Hour Factor        | 0.95                                                                                                                                                                | 0.95                                                                                                                                                                | 0.95                                                                              | 0.95                                                                                                                                                                | 0.95                                                                                                                                                                | 0.95                                                                              | 0.95                                                                                                                                                                    | 0.95                                                                                                                                                                                                                                                        | 0.95                                                                                | 0.95                                                                                                                                                                    | 0.95                                                                                                                                                                                                                                                        | 0.95                                                                                |
| Adj. Flow (vph)         | 133                                                                                                                                                                 | 640                                                                                                                                                                 | 136                                                                               | 154                                                                                                                                                                 | 394                                                                                                                                                                 | 83                                                                                | 128                                                                                                                                                                     | 1335                                                                                                                                                                                                                                                        | 138                                                                                 | 112                                                                                                                                                                     | 1084                                                                                                                                                                                                                                                        | 66                                                                                  |
| Shared Lane Traffic (%) |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |
| Lane Group Flow (vph)   | 133                                                                                                                                                                 | 640                                                                                                                                                                 | 136                                                                               | 154                                                                                                                                                                 | 394                                                                                                                                                                 | 83                                                                                | 128                                                                                                                                                                     | 1473                                                                                                                                                                                                                                                        | 0                                                                                   | 112                                                                                                                                                                     | 1084                                                                                                                                                                                                                                                        | 66                                                                                  |
| Turn Type               | Prot                                                                                                                                                                | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                                                                                                | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                                                                                                    | NA                                                                                                                                                                                                                                                          |                                                                                     | Prot                                                                                                                                                                    | NA                                                                                                                                                                                                                                                          | Perm                                                                                |
| Protected Phases        | 7                                                                                                                                                                   | 4                                                                                                                                                                   |                                                                                   | 3                                                                                                                                                                   | 8                                                                                                                                                                   |                                                                                   | 5                                                                                                                                                                       | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                                                                                                       | 6                                                                                                                                                                                                                                                           |                                                                                     |
| Permitted Phases        |                                                                                                                                                                     |                                                                                                                                                                     | 4                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 8                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | 6                                                                                   |
| Detector Phase          | 7                                                                                                                                                                   | 4                                                                                                                                                                   | 4                                                                                 | 3                                                                                                                                                                   | 8                                                                                                                                                                   | 8                                                                                 | 5                                                                                                                                                                       | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                                                                                                       | 6                                                                                                                                                                                                                                                           | 6                                                                                   |
| Switch Phase            |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         |                                                                                     | 5.0                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                     | 20.0                                                                                                                                                                                                                                                        |                                                                                     | 9.5                                                                                                                                                                     | 20.0                                                                                                                                                                                                                                                        | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                     | 21.0                                                                                                                                                                                                                                                        |                                                                                     | 9.5                                                                                                                                                                     | 21.0                                                                                                                                                                                                                                                        | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                                                                                                               | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                                                                                                               | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                                                                                                                   | 35.0%                                                                                                                                                                                                                                                       |                                                                                     | 15.8%                                                                                                                                                                   | 35.0%                                                                                                                                                                                                                                                       | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                                                                                                                 | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                                                                                                     | 3.5                                                                                                                                                                                                                                                         |                                                                                     | 3.5                                                                                                                                                                     | 3.5                                                                                                                                                                                                                                                         | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                                                                                                                 | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                                                                                                 | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                         |                                                                                     | 1.0                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                         | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                                                                                                                 | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                                                                                                         |                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         |                                                                                     | 4.5                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                                                                                                                | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                                                                                                | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                                                                                                         |                                                                                     | Lead                                                                                                                                                                    | Lag                                                                                                                                                                                                                                                         | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                                                                                                                 | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                         |                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                         | Yes                                                                                 |
| Recall Mode             | None                                                                                                                                                                | None                                                                                                                                                                | None                                                                              | None                                                                                                                                                                | None                                                                                                                                                                | None                                                                              | None                                                                                                                                                                    | C-Max                                                                                                                                                                                                                                                       |                                                                                     | None                                                                                                                                                                    | C-Max                                                                                                                                                                                                                                                       | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 1: Monterey Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 1: Monterey Av. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (veh/h)       | 126                                                                               | 608                                                                               | 129                                                                               | 146                                                                               | 374                                                                               | 79                                                                                | 122                                                                                 | 1268                                                                                | 131                                                                                 | 106                                                                                 | 1030                                                                                | 63                                                                                  |
| Future Volume (veh/h)        | 126                                                                               | 608                                                                               | 129                                                                               | 146                                                                               | 374                                                                               | 79                                                                                | 122                                                                                 | 1268                                                                                | 131                                                                                 | 106                                                                                 | 1030                                                                                | 63                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 133                                                                               | 640                                                                               | 136                                                                               | 154                                                                               | 394                                                                               | 83                                                                                | 128                                                                                 | 1335                                                                                | 138                                                                                 | 112                                                                                 | 1084                                                                                | 66                                                                                  |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 257                                                                               | 822                                                                               | 364                                                                               | 266                                                                               | 832                                                                               | 369                                                                               | 254                                                                                 | 1588                                                                                | 164                                                                                 | 243                                                                                 | 1710                                                                                | 529                                                                                 |
| Arrive On Green              | 0.07                                                                              | 0.23                                                                              | 0.23                                                                              | 0.08                                                                              | 0.23                                                                              | 0.23                                                                              | 0.07                                                                                | 0.34                                                                                | 0.34                                                                                | 0.07                                                                                | 0.33                                                                                | 0.33                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1575                                                                              | 3456                                                                              | 3554                                                                              | 1575                                                                              | 3456                                                                                | 4699                                                                                | 486                                                                                 | 3456                                                                                | 5106                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 133                                                                               | 640                                                                               | 136                                                                               | 154                                                                               | 394                                                                               | 83                                                                                | 128                                                                                 | 967                                                                                 | 506                                                                                 | 112                                                                                 | 1084                                                                                | 66                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1575                                                                              | 1728                                                                              | 1777                                                                              | 1575                                                                              | 1728                                                                                | 1702                                                                                | 1780                                                                                | 1728                                                                                | 1702                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 2.2                                                                               | 10.1                                                                              | 4.4                                                                               | 2.6                                                                               | 5.7                                                                               | 2.6                                                                               | 2.1                                                                                 | 15.8                                                                                | 15.8                                                                                | 1.9                                                                                 | 10.8                                                                                | 1.7                                                                                 |
| Cycle Q Clear(g_c), s        | 2.2                                                                               | 10.1                                                                              | 4.4                                                                               | 2.6                                                                               | 5.7                                                                               | 2.6                                                                               | 2.1                                                                                 | 15.8                                                                                | 15.8                                                                                | 1.9                                                                                 | 10.8                                                                                | 1.7                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.27                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 257                                                                               | 822                                                                               | 364                                                                               | 266                                                                               | 832                                                                               | 369                                                                               | 254                                                                                 | 1150                                                                                | 602                                                                                 | 243                                                                                 | 1710                                                                                | 529                                                                                 |
| V/C Ratio(X)                 | 0.52                                                                              | 0.78                                                                              | 0.37                                                                              | 0.58                                                                              | 0.47                                                                              | 0.23                                                                              | 0.50                                                                                | 0.84                                                                                | 0.84                                                                                | 0.46                                                                                | 0.63                                                                                | 0.12                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                                 | 1150                                                                                | 602                                                                                 | 288                                                                                 | 1710                                                                                | 529                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 26.7                                                                              | 21.6                                                                              | 19.4                                                                              | 26.8                                                                              | 19.8                                                                              | 18.6                                                                              | 26.7                                                                                | 18.4                                                                                | 18.4                                                                                | 26.8                                                                                | 16.8                                                                                | 13.8                                                                                |
| Incr Delay (d2), s/veh       | 1.6                                                                               | 3.6                                                                               | 0.6                                                                               | 2.5                                                                               | 0.4                                                                               | 0.3                                                                               | 1.5                                                                                 | 7.5                                                                                 | 13.3                                                                                | 1.4                                                                                 | 1.8                                                                                 | 0.5                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.9                                                                               | 3.9                                                                               | 1.4                                                                               | 1.0                                                                               | 2.0                                                                               | 0.8                                                                               | 0.8                                                                                 | 5.9                                                                                 | 7.2                                                                                 | 0.7                                                                                 | 3.5                                                                                 | 0.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 28.4                                                                              | 25.3                                                                              | 20.0                                                                              | 29.2                                                                              | 20.2                                                                              | 18.9                                                                              | 28.3                                                                                | 25.8                                                                                | 31.7                                                                                | 28.1                                                                                | 18.6                                                                                | 14.3                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | B                                                                                 | C                                                                                   | C                                                                                   | C                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 909                                                                               |                                                                                   |                                                                                   | 631                                                                               |                                                                                   |                                                                                   | 1601                                                                                |                                                                                     |                                                                                     | 1262                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 24.9                                                                              |                                                                                   |                                                                                   | 22.2                                                                              |                                                                                   |                                                                                   | 27.9                                                                                |                                                                                     |                                                                                     | 19.3                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.7                                                                               | 24.3                                                                              | 9.1                                                                               | 17.9                                                                              | 8.9                                                                               | 24.1                                                                              | 9.0                                                                                 | 18.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.9                                                                               | 17.8                                                                              | 4.6                                                                               | 12.1                                                                              | 4.1                                                                               | 12.8                                                                              | 4.2                                                                                 | 7.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 1.6                                                                               | 0.0                                                                               | 2.5                                                                               | 0.0                                                                                 | 1.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 24.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
2: Portola Av. & Central Access

EAP (2024) PM Peak Hour

|                         |  |  |  |                                                                                                                                                                      |                                                                                    |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                                                                                                                                                                                                   | SBT                                                                                                                                                                 | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |  |    |   |  |
| Traffic Volume (vph)    | 0                                                                                 | 23                                                                                | 52                                                                                | 675                                                                                                                                                                                                                                                   | 466                                                                                                                                                                 | 77                                                                                |
| Future Volume (vph)     | 0                                                                                 | 23                                                                                | 52                                                                                | 675                                                                                                                                                                                                                                                   | 466                                                                                                                                                                 | 77                                                                                |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                                                                                                                | 1900                                                                              |
| Storage Length (ft)     | 0                                                                                 | 0                                                                                 | 220                                                                               |                                                                                                                                                                                                                                                       |                                                                                                                                                                     | 90                                                                                |
| Storage Lanes           | 0                                                                                 | 1                                                                                 | 1                                                                                 |                                                                                                                                                                                                                                                       |                                                                                                                                                                     | 1                                                                                 |
| Taper Length (ft)       | 90                                                                                |                                                                                   | 60                                                                                |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                                                                                                                                                                                    | 55                                                                                                                                                                  |                                                                                   |
| Link Distance (ft)      | 265                                                                               |                                                                                   |                                                                                   | 417                                                                                                                                                                                                                                                   | 282                                                                                                                                                                 |                                                                                   |
| Travel Time (s)         | 6.0                                                                               |                                                                                   |                                                                                   | 5.2                                                                                                                                                                                                                                                   | 3.5                                                                                                                                                                 |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                                                                                                                | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 25                                                                                | 57                                                                                | 734                                                                                                                                                                                                                                                   | 507                                                                                                                                                                 | 84                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 25                                                                                | 57                                                                                | 734                                                                                                                                                                                                                                                   | 507                                                                                                                                                                 | 84                                                                                |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                                                                                                                                                                                                  | Free                                                                                                                                                                |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.5    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      |        | ↗      | ↘     | ↑↑↑    | ↑↑   | ↗    |
| Traffic Vol, veh/h       | 0      | 23     | 52    | 675    | 466  | 77   |
| Future Vol, veh/h        | 0      | 23     | 52    | 675    | 466  | 77   |
| 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      | 220   | -      | -    | 90   |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92    | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 25     | 57    | 734    | 507  | 84   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | -      | 254    | 591   | 0      | -    | 0    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Critical Hdwy            | -      | 6.94   | 4.14  | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.32   | 2.22  | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 745    | 981   | -      | -    | -    |
| Stage 1                  | 0      | -      | -     | -      | -    | -    |
| Stage 2                  | 0      | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 745    | 981   | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -      | -     | -      | -    | -    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 10     | 0.6    |       | 0      |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 981    | -      | 745   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.058  | -      | 0.034 | -      | -    |      |
| HCM Control Delay (s)    | 8.9    | -      | 10    | -      | -    |      |
| HCM Lane LOS             | A      | -      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.2    | -      | 0.1   | -      | -    |      |

Lanes, Volumes, Timings  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                         |  |                                                                                    |  |  |                                                                                    |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |   |                                                                                   |                                                                                   |   |  |                                                                                    |                                                                                     |  |                                                                                     |                                                                                     |  |
| Traffic Volume (vph)    | 42                                                                                | 726                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 523                                                                                                                                                                 | 43                                                                                | 0                                                                                  | 0                                                                                   | 46                                                                                  | 0                                                                                   | 0                                                                                   | 47                                                                                  |
| Future Volume (vph)     | 42                                                                                | 726                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 523                                                                                                                                                                 | 43                                                                                | 0                                                                                  | 0                                                                                   | 46                                                                                  | 0                                                                                   | 0                                                                                   | 47                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                                                                                                     | 150                                                                               | 150                                                                               |                                                                                                                                                                     | 50                                                                                | 0                                                                                  |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 150                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     | 1                                                                                 | 0                                                                                  |                                                                                     | 1                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                                                                                                     |                                                                                   | 90                                                                                 |                                                                                     |                                                                                     | 90                                                                                  |                                                                                     |                                                                                     |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 5371                                                                                                                                                                |                                                                                   |                                                                                   | 693                                                                                                                                                                 |                                                                                   |                                                                                    | 244                                                                                 |                                                                                     |                                                                                     | 810                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 73.2                                                                                                                                                                |                                                                                   |                                                                                   | 9.5                                                                                                                                                                 |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     | 18.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     | 5                                                                                 |                                                                                    |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                                                                                                                | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Adj. Flow (vph)         | 46                                                                                | 789                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 568                                                                                                                                                                 | 47                                                                                | 0                                                                                  | 0                                                                                   | 50                                                                                  | 0                                                                                   | 0                                                                                   | 51                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 46                                                                                | 789                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 568                                                                                                                                                                 | 47                                                                                | 0                                                                                  | 0                                                                                   | 50                                                                                  | 0                                                                                   | 0                                                                                   | 51                                                                                  |
| Sign Control            |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Intersection Summary    |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:              | Other                                                                             |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

| Intersection             |                                                                                   |                                                                                   |        |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1                                                                                 |                                                                                   |        |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR    | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT  | NBR                                                                               | SBL  | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |        |      |  |  |      |      |  |      |      |  |
| Traffic Vol, veh/h       | 42                                                                                | 726                                                                               | 0      | 0    | 523                                                                               | 43                                                                                | 0    | 0    | 46                                                                                | 0    | 0    | 47                                                                                  |
| Future Vol, veh/h        | 42                                                                                | 726                                                                               | 0      | 0    | 523                                                                               | 43                                                                                | 0    | 0    | 46                                                                                | 0    | 0    | 47                                                                                  |
| Conflicting Peds, #/hr   | 5                                                                                 | 0                                                                                 | 0      | 0    | 0                                                                                 | 5                                                                                 | 0    | 0    | 0                                                                                 | 5    | 0    | 5                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free   | Free | Free                                                                              | Free                                                                              | Stop | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None   | -    | -                                                                                 | None                                                                              | -    | -    | None                                                                              | -    | -    | None                                                                                |
| Storage Length           | 140                                                                               | -                                                                                 | -      | -    | -                                                                                 | 50                                                                                | -    | -    | 0                                                                                 | -    | -    | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -      | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                 | -    | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -      | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                 | -    | 0    | -                                                                                   |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92     | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2      | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   |
| Mvmt Flow                | 46                                                                                | 789                                                                               | 0      | 0    | 568                                                                               | 47                                                                                | 0    | 0    | 50                                                                                | 0    | 0    | 51                                                                                  |
|                          |                                                                                   |                                                                                   |        |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
| Major/Minor              | Major1                                                                            |                                                                                   | Major2 |      |                                                                                   | Minor1                                                                            |      |      | Minor2                                                                            |      |      |                                                                                     |
| Conflicting Flow All     | 620                                                                               | 0                                                                                 | -      | -    | -                                                                                 | 0                                                                                 | -    | -    | 395                                                                               | -    | -    | 294                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | 6.94                                                                              | -    | -    | 6.94                                                                                |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | 3.32                                                                              | -    | -    | 3.32                                                                                |
| Pot Cap-1 Maneuver       | 956                                                                               | -                                                                                 | 0      | 0    | -                                                                                 | -                                                                                 | 0    | 0    | 604                                                                               | 0    | 0    | 702                                                                                 |
| Stage 1                  | -                                                                                 | -                                                                                 | 0      | 0    | -                                                                                 | -                                                                                 | 0    | 0    | -                                                                                 | 0    | 0    | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | 0      | 0    | -                                                                                 | -                                                                                 | 0    | 0    | -                                                                                 | 0    | 0    | -                                                                                   |
| Platoon blocked, %       |                                                                                   | -                                                                                 |        |      | -                                                                                 | -                                                                                 |      |      |                                                                                   |      |      |                                                                                     |
| Mov Cap-1 Maneuver       | 951                                                                               | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | 604                                                                               | -    | -    | 695                                                                                 |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
| Stage 1                  | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
| Stage 2                  | -                                                                                 | -                                                                                 | -      | -    | -                                                                                 | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   |
|                          |                                                                                   |                                                                                   |        |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
|                          |                                                                                   |                                                                                   |        |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
| Approach                 | EB                                                                                |                                                                                   | WB     |      |                                                                                   | NB                                                                                |      |      | SB                                                                                |      |      |                                                                                     |
| HCM Control Delay, s     | 0.5                                                                               |                                                                                   | 0      |      |                                                                                   | 11.5                                                                              |      |      | 10.6                                                                              |      |      |                                                                                     |
| HCM LOS                  |                                                                                   |                                                                                   |        |      |                                                                                   | B                                                                                 |      |      | B                                                                                 |      |      |                                                                                     |
|                          |                                                                                   |                                                                                   |        |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT    | WBT  | WBR                                                                               | SBLn1                                                                             |      |      |                                                                                   |      |      |                                                                                     |
| Capacity (veh/h)         | 604                                                                               | 951                                                                               | -      | -    | -                                                                                 | 695                                                                               |      |      |                                                                                   |      |      |                                                                                     |
| HCM Lane V/C Ratio       | 0.083                                                                             | 0.048                                                                             | -      | -    | -                                                                                 | 0.074                                                                             |      |      |                                                                                   |      |      |                                                                                     |
| HCM Control Delay (s)    | 11.5                                                                              | 9                                                                                 | -      | -    | -                                                                                 | 10.6                                                                              |      |      |                                                                                   |      |      |                                                                                     |
| HCM Lane LOS             | B                                                                                 | A                                                                                 | -      | -    | -                                                                                 | B                                                                                 |      |      |                                                                                   |      |      |                                                                                     |
| HCM 95th %tile Q(veh)    | 0.3                                                                               | 0.2                                                                               | -      | -    | -                                                                                 | 0.2                                                                               |      |      |                                                                                   |      |      |                                                                                     |

Lanes, Volumes, Timings  
4: Portola Av. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                         |  |  |  |  |  |  |   |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 39                                                                                | 615                                                                               | 117                                                                               | 126                                                                               | 368                                                                               | 14                                                                                | 149                                                                                 | 432                                                                                 | 104                                                                                 | 70                                                                                  | 304                                                                                 | 29                                                                                  |
| Future Volume (vph)     | 39                                                                                | 615                                                                               | 117                                                                               | 126                                                                               | 368                                                                               | 14                                                                                | 149                                                                                 | 432                                                                                 | 104                                                                                 | 70                                                                                  | 304                                                                                 | 29                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 120                                                                               |                                                                                   | 230                                                                               | 140                                                                               |                                                                                   | 100                                                                               | 260                                                                                 |                                                                                     | 50                                                                                  | 180                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 120                                                                                 |                                                                                     |                                                                                     | 190                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 693                                                                               |                                                                                   |                                                                                   | 4512                                                                              |                                                                                   |                                                                                     | 510                                                                                 |                                                                                     |                                                                                     | 1159                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 9.5                                                                               |                                                                                   |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                     | 6.3                                                                                 |                                                                                     |                                                                                     | 14.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Adj. Flow (vph)         | 41                                                                                | 654                                                                               | 124                                                                               | 134                                                                               | 391                                                                               | 15                                                                                | 159                                                                                 | 460                                                                                 | 111                                                                                 | 74                                                                                  | 323                                                                                 | 31                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 41                                                                                | 654                                                                               | 124                                                                               | 134                                                                               | 391                                                                               | 15                                                                                | 159                                                                                 | 460                                                                                 | 111                                                                                 | 74                                                                                  | 354                                                                                 | 0                                                                                   |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.6                                                                               | 20.1                                                                              | 20.1                                                                              | 10.4                                                                                | 20.8                                                                                | 20.8                                                                                | 9.6                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 16.0%                                                                             | 33.5%                                                                             | 33.5%                                                                             | 17.3%                                                                               | 34.7%                                                                               | 34.7%                                                                               | 16.0%                                                                               | 33.3%                                                                               |                                                                                     |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |                                                                                     |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 4: Portola Av. & Frank Sinatra Dr.

|                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |
| Ø1                                                                                  | Ø2 (R)                                                                              | Ø3                                                                                  | Ø4                                                                                    |
| 9.6 s                                                                               | 20.8 s                                                                              | 9.6 s                                                                               | 20 s                                                                                  |
|  |  |  |  |
| Ø5                                                                                  | Ø6 (R)                                                                              | Ø7                                                                                  | Ø8                                                                                    |
| 10.4 s                                                                              | 20 s                                                                                | 9.5 s                                                                               | 20.1 s                                                                                |

# HCM 6th Signalized Intersection Summary

## 4: Portola Av. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                              |  |                                                                                    |  |  |                                                                                    |  |  |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (veh/h)       | 39                                                                                | 615                                                                                                                                                                 | 117                                                                               | 126                                                                               | 368                                                                                                                                                                 | 14                                                                                | 149                                                                                 | 432                                                                                                                                                                                                                                                         | 104                                                                                 | 70                                                                                  | 304                                                                                                                                                                                                                                                         | 29                                                                                  |
| Future Volume (veh/h)        | 39                                                                                | 615                                                                                                                                                                 | 117                                                                               | 126                                                                               | 368                                                                                                                                                                 | 14                                                                                | 149                                                                                 | 432                                                                                                                                                                                                                                                         | 104                                                                                 | 70                                                                                  | 304                                                                                                                                                                                                                                                         | 29                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 41                                                                                | 654                                                                                                                                                                 | 124                                                                               | 134                                                                               | 391                                                                                                                                                                 | 15                                                                                | 159                                                                                 | 460                                                                                                                                                                                                                                                         | 111                                                                                 | 74                                                                                  | 323                                                                                                                                                                                                                                                         | 31                                                                                  |
| Peak Hour Factor             | 0.94                                                                              | 0.94                                                                                                                                                                | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                                                                                                | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                                                                                                                                                                                        | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                                                                                                                                                                                        | 0.94                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 73                                                                                | 831                                                                                                                                                                 | 368                                                                               | 151                                                                               | 987                                                                                                                                                                 | 438                                                                               | 175                                                                                 | 1729                                                                                                                                                                                                                                                        | 534                                                                                 | 105                                                                                 | 1420                                                                                                                                                                                                                                                        | 134                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.23                                                                                                                                                                | 0.23                                                                              | 0.09                                                                              | 0.28                                                                                                                                                                | 0.28                                                                              | 0.10                                                                                | 0.34                                                                                                                                                                                                                                                        | 0.34                                                                                | 0.06                                                                                | 0.30                                                                                                                                                                                                                                                        | 0.30                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                                                                                                                | 1575                                                                              | 1781                                                                              | 3554                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 5106                                                                                                                                                                                                                                                        | 1578                                                                                | 1781                                                                                | 4744                                                                                                                                                                                                                                                        | 447                                                                                 |
| Grp Volume(v), veh/h         | 41                                                                                | 654                                                                                                                                                                 | 124                                                                               | 134                                                                               | 391                                                                                                                                                                 | 15                                                                                | 159                                                                                 | 460                                                                                                                                                                                                                                                         | 111                                                                                 | 74                                                                                  | 230                                                                                                                                                                                                                                                         | 124                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                                                                                                                | 1575                                                                              | 1781                                                                              | 1777                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1578                                                                                | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1787                                                                                |
| Q Serve(g_s), s              | 1.4                                                                               | 10.4                                                                                                                                                                | 3.9                                                                               | 4.5                                                                               | 5.4                                                                                                                                                                 | 0.4                                                                               | 5.3                                                                                 | 3.9                                                                                                                                                                                                                                                         | 3.0                                                                                 | 2.4                                                                                 | 3.0                                                                                                                                                                                                                                                         | 3.1                                                                                 |
| Cycle Q Clear(g_c), s        | 1.4                                                                               | 10.4                                                                                                                                                                | 3.9                                                                               | 4.5                                                                               | 5.4                                                                                                                                                                 | 0.4                                                                               | 5.3                                                                                 | 3.9                                                                                                                                                                                                                                                         | 3.0                                                                                 | 2.4                                                                                 | 3.0                                                                                                                                                                                                                                                         | 3.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.25                                                                                |
| Lane Grp Cap(c), veh/h       | 73                                                                                | 831                                                                                                                                                                 | 368                                                                               | 151                                                                               | 987                                                                                                                                                                 | 438                                                                               | 175                                                                                 | 1729                                                                                                                                                                                                                                                        | 534                                                                                 | 105                                                                                 | 1019                                                                                                                                                                                                                                                        | 535                                                                                 |
| V/C Ratio(X)                 | 0.56                                                                              | 0.79                                                                                                                                                                | 0.34                                                                              | 0.89                                                                              | 0.40                                                                                                                                                                | 0.03                                                                              | 0.91                                                                                | 0.27                                                                                                                                                                                                                                                        | 0.21                                                                                | 0.70                                                                                | 0.23                                                                                                                                                                                                                                                        | 0.23                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 948                                                                                                                                                                 | 420                                                                               | 151                                                                               | 987                                                                                                                                                                 | 438                                                                               | 175                                                                                 | 1729                                                                                                                                                                                                                                                        | 534                                                                                 | 151                                                                                 | 1019                                                                                                                                                                                                                                                        | 535                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 0.96                                                                              | 0.96                                                                                                                                                                | 0.96                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 28.2                                                                              | 21.6                                                                                                                                                                | 19.1                                                                              | 27.2                                                                              | 17.6                                                                                                                                                                | 15.8                                                                              | 26.8                                                                                | 14.4                                                                                                                                                                                                                                                        | 14.1                                                                                | 27.7                                                                                | 15.8                                                                                                                                                                                                                                                        | 15.8                                                                                |
| Incr Delay (d2), s/veh       | 6.5                                                                               | 3.9                                                                                                                                                                 | 0.5                                                                               | 40.4                                                                              | 0.2                                                                                                                                                                 | 0.0                                                                               | 42.7                                                                                | 0.4                                                                                                                                                                                                                                                         | 0.9                                                                                 | 8.3                                                                                 | 0.5                                                                                                                                                                                                                                                         | 1.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.6                                                                               | 4.1                                                                                                                                                                 | 1.3                                                                               | 3.4                                                                               | 1.8                                                                                                                                                                 | 0.1                                                                               | 4.0                                                                                 | 1.2                                                                                                                                                                                                                                                         | 1.0                                                                                 | 1.1                                                                                 | 1.0                                                                                                                                                                                                                                                         | 1.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 34.7                                                                              | 25.5                                                                                                                                                                | 19.6                                                                              | 67.6                                                                              | 17.8                                                                                                                                                                | 15.8                                                                              | 69.4                                                                                | 14.8                                                                                                                                                                                                                                                        | 15.0                                                                                | 36.0                                                                                | 16.3                                                                                                                                                                                                                                                        | 16.8                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                                                                                                   | B                                                                                 | E                                                                                 | B                                                                                                                                                                   | B                                                                                 | E                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   | D                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 819                                                                                                                                                                 |                                                                                   |                                                                                   | 540                                                                                                                                                                 |                                                                                   |                                                                                     | 730                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 428                                                                                                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 25.1                                                                                                                                                                |                                                                                   |                                                                                   | 30.1                                                                                                                                                                |                                                                                   |                                                                                     | 26.7                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     | 19.9                                                                                                                                                                                                                                                        |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                     | C                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     | B                                                                                                                                                                                                                                                           |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                   | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                   | 6                                                                                 | 7                                                                                   | 8                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.0                                                                               | 24.3                                                                                                                                                                | 9.6                                                                               | 18.0                                                                              | 10.4                                                                                                                                                                | 22.0                                                                              | 7.0                                                                                 | 20.7                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 5.1                                                                               | 16.8                                                                                                                                                                | 5.1                                                                               | 16.0                                                                              | 5.9                                                                                                                                                                 | 16.0                                                                              | 5.0                                                                                 | 16.1                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.4                                                                               | 5.9                                                                                                                                                                 | 6.5                                                                               | 12.4                                                                              | 7.3                                                                                                                                                                 | 5.1                                                                               | 3.4                                                                                 | 7.4                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.2                                                                                                                                                                 | 0.0                                                                               | 1.5                                                                               | 0.0                                                                                                                                                                 | 1.3                                                                               | 0.0                                                                                 | 1.5                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                     | 25.8                                                                              |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                     | C                                                                                 |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

Lanes, Volumes, Timings  
5: Cook St. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 360                                                                               | 271                                                                               | 141                                                                               | 44                                                                                | 176                                                                               | 41                                                                                | 124                                                                                | 918                                                                                 | 77                                                                                  | 78                                                                                  | 786                                                                                 | 216                                                                                 |
| Future Volume (vph)     | 360                                                                               | 271                                                                               | 141                                                                               | 44                                                                                | 176                                                                               | 41                                                                                | 124                                                                                | 918                                                                                 | 77                                                                                  | 78                                                                                  | 786                                                                                 | 216                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                   | 135                                                                               | 135                                                                               |                                                                                   | 260                                                                               | 140                                                                                |                                                                                     | 0                                                                                   | 210                                                                                 |                                                                                     | 220                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 210                                                                               |                                                                                   |                                                                                   | 110                                                                               |                                                                                   |                                                                                   | 110                                                                                |                                                                                     |                                                                                     | 140                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 4512                                                                              |                                                                                   |                                                                                   | 1444                                                                              |                                                                                   |                                                                                    | 671                                                                                 |                                                                                     |                                                                                     | 1610                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                   | 19.7                                                                              |                                                                                   |                                                                                    | 8.3                                                                                 |                                                                                     |                                                                                     | 20.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Adj. Flow (vph)         | 391                                                                               | 295                                                                               | 153                                                                               | 48                                                                                | 191                                                                               | 45                                                                                | 135                                                                                | 998                                                                                 | 84                                                                                  | 85                                                                                  | 854                                                                                 | 235                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 391                                                                               | 295                                                                               | 153                                                                               | 48                                                                                | 191                                                                               | 45                                                                                | 135                                                                                | 1082                                                                                | 0                                                                                   | 85                                                                                  | 854                                                                                 | 235                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 10.0                                                                              | 20.5                                                                              | 20.5                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.5                                                                                |                                                                                     | 9.5                                                                                 | 20.5                                                                                | 20.5                                                                                |
| Total Split (%)         | 16.7%                                                                             | 34.2%                                                                             | 34.2%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 34.2%                                                                               |                                                                                     | 15.8%                                                                               | 34.2%                                                                               | 34.2%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 5: Cook St. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 20.5 s                                                                                     | 9.5 s                                                                                  | 20.5 s                                                                                   |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 20.5 s                                                                                     | 10 s                                                                                   | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary 5: Cook St. & Frank Sinatra Dr.

EAP (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 360                                                                               | 271                                                                               | 141                                                                               | 44                                                                                | 176                                                                               | 41                                                                                | 124                                                                                 | 918                                                                                 | 77                                                                                  | 78                                                                                  | 786                                                                                 | 216                                                                                 |
| Future Volume (veh/h)        | 360                                                                               | 271                                                                               | 141                                                                               | 44                                                                                | 176                                                                               | 41                                                                                | 124                                                                                 | 918                                                                                 | 77                                                                                  | 78                                                                                  | 786                                                                                 | 216                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 391                                                                               | 295                                                                               | 153                                                                               | 48                                                                                | 191                                                                               | 45                                                                                | 135                                                                                 | 998                                                                                 | 84                                                                                  | 85                                                                                  | 854                                                                                 | 235                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 317                                                                               | 561                                                                               | 248                                                                               | 159                                                                               | 399                                                                               | 175                                                                               | 258                                                                                 | 1491                                                                                | 126                                                                                 | 218                                                                                 | 2238                                                                                | 692                                                                                 |
| Arrive On Green              | 0.09                                                                              | 0.16                                                                              | 0.16                                                                              | 0.05                                                                              | 0.11                                                                              | 0.11                                                                              | 0.07                                                                                | 0.45                                                                                | 0.45                                                                                | 0.13                                                                                | 0.88                                                                                | 0.88                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1570                                                                              | 3456                                                                              | 3554                                                                              | 1564                                                                              | 3456                                                                                | 3317                                                                                | 279                                                                                 | 3456                                                                                | 5106                                                                                | 1580                                                                                |
| Grp Volume(v), veh/h         | 391                                                                               | 295                                                                               | 153                                                                               | 48                                                                                | 191                                                                               | 45                                                                                | 135                                                                                 | 535                                                                                 | 547                                                                                 | 85                                                                                  | 854                                                                                 | 235                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1570                                                                              | 1728                                                                              | 1777                                                                              | 1564                                                                              | 1728                                                                                | 1777                                                                                | 1819                                                                                | 1728                                                                                | 1702                                                                                | 1580                                                                                |
| Q Serve(g_s), s              | 5.5                                                                               | 4.6                                                                               | 5.5                                                                               | 0.8                                                                               | 3.0                                                                               | 1.6                                                                               | 2.3                                                                                 | 14.2                                                                                | 14.2                                                                                | 1.4                                                                                 | 1.9                                                                                 | 1.6                                                                                 |
| Cycle Q Clear(g_c), s        | 5.5                                                                               | 4.6                                                                               | 5.5                                                                               | 0.8                                                                               | 3.0                                                                               | 1.6                                                                               | 2.3                                                                                 | 14.2                                                                                | 14.2                                                                                | 1.4                                                                                 | 1.9                                                                                 | 1.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.15                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 317                                                                               | 561                                                                               | 248                                                                               | 159                                                                               | 399                                                                               | 175                                                                               | 258                                                                                 | 799                                                                                 | 818                                                                                 | 218                                                                                 | 2238                                                                                | 692                                                                                 |
| V/C Ratio(X)                 | 1.23                                                                              | 0.53                                                                              | 0.62                                                                              | 0.30                                                                              | 0.48                                                                              | 0.26                                                                              | 0.52                                                                                | 0.67                                                                                | 0.67                                                                                | 0.39                                                                                | 0.38                                                                                | 0.34                                                                                |
| Avail Cap(c_a), veh/h        | 317                                                                               | 977                                                                               | 432                                                                               | 288                                                                               | 948                                                                               | 417                                                                               | 288                                                                                 | 799                                                                                 | 818                                                                                 | 288                                                                                 | 2238                                                                                | 692                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                |
| Upstream Filter(I)           | 0.73                                                                              | 0.73                                                                              | 0.73                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Uniform Delay (d), s/veh     | 27.2                                                                              | 23.2                                                                              | 23.6                                                                              | 27.7                                                                              | 25.0                                                                              | 24.3                                                                              | 26.7                                                                                | 13.0                                                                                | 13.0                                                                                | 25.2                                                                                | 2.2                                                                                 | 2.2                                                                                 |
| Incr Delay (d2), s/veh       | 124.0                                                                             | 0.6                                                                               | 1.8                                                                               | 1.1                                                                               | 0.9                                                                               | 0.8                                                                               | 1.6                                                                                 | 4.4                                                                                 | 4.3                                                                                 | 1.1                                                                                 | 0.5                                                                                 | 1.3                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 7.4                                                                               | 1.7                                                                               | 1.9                                                                               | 0.3                                                                               | 1.2                                                                               | 0.5                                                                               | 0.9                                                                                 | 4.9                                                                                 | 5.0                                                                                 | 0.5                                                                                 | 0.4                                                                                 | 0.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 151.3                                                                             | 23.8                                                                              | 25.4                                                                              | 28.8                                                                              | 25.9                                                                              | 25.1                                                                              | 28.4                                                                                | 17.4                                                                                | 17.3                                                                                | 26.2                                                                                | 2.7                                                                                 | 3.4                                                                                 |
| LnGrp LOS                    | F                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 839                                                                               |                                                                                   |                                                                                   | 284                                                                               |                                                                                   |                                                                                   | 1217                                                                                |                                                                                     |                                                                                     | 1174                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 83.5                                                                              |                                                                                   |                                                                                   | 26.2                                                                              |                                                                                   |                                                                                   | 18.6                                                                                |                                                                                     |                                                                                     | 4.5                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | F                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.3                                                                               | 31.0                                                                              | 7.3                                                                               | 13.5                                                                              | 9.0                                                                               | 30.3                                                                              | 10.0                                                                                | 10.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 16.5                                                                              | 5.0                                                                               | 16.5                                                                              | 5.0                                                                               | 16.5                                                                              | 5.5                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.4                                                                               | 16.2                                                                              | 2.8                                                                               | 7.5                                                                               | 4.3                                                                               | 3.9                                                                               | 7.5                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.2                                                                               | 0.0                                                                               | 1.4                                                                               | 0.0                                                                               | 4.8                                                                               | 0.0                                                                                 | 0.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 30.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
6: Portola Av. & Retreat Circ. (N)

EAP (2024) PM Peak Hour

|                         |  |  |                                                                                                                                                                      |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |    |  |  |   |
| Traffic Volume (vph)    | 0                                                                                 | 15                                                                                | 670                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 543                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 15                                                                                | 670                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 543                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 217                                                                               |                                                                                   | 282                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 254                                                                                                                                                                 |
| Travel Time (s)         | 4.9                                                                               |                                                                                   | 3.5                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 3.1                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                                                                                                  | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 16                                                                                | 720                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 584                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 16                                                                                | 720                                                                                                                                                                                                                                                   | 5                                                                                 | 4                                                                                 | 584                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |        |          |      |        |      |      |
|--------------------------|--------|----------|------|--------|------|------|
| Int Delay, s/veh         | 0.2    |          |      |        |      |      |
| Movement                 | WBL    | WBR      | NBT  | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗        | ↗↗↗  | ↗      | ↗    | ↗↗   |
| Traffic Vol, veh/h       | 0      | 15       | 670  | 5      | 4    | 543  |
| Future Vol, veh/h        | 0      | 15       | 670  | 5      | 4    | 543  |
| Conflicting Peds, #/hr   | 5      | 5        | 0    | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free | Free   | Free | Free |
| RT Channelized           | -      | None     | -    | None   | -    | None |
| Storage Length           | -      | -        | -    | 150    | 150  | -    |
| Veh in Median Storage, # | 0      | -        | 0    | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0    | -      | -    | 0    |
| Peak Hour Factor         | 93     | 93       | 93   | 93     | 93   | 93   |
| Heavy Vehicles, %        | 2      | 2        | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 16       | 720  | 5      | 4    | 584  |
| Major/Minor              | Minor1 | Major1   |      | Major2 |      |      |
| Conflicting Flow All     | -      | 370      | 0    | 0      | 730  | 0    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -    | -      | 5.34 | -    |
| Critical Hdwy Stg 1      | -      | -        | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -    | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -    | -      | 3.12 | -    |
| Pot Cap-1 Maneuver       | 0      | 536      | -    | -      | 527  | -    |
| Stage 1                  | 0      | -        | -    | -      | -    | -    |
| Stage 2                  | 0      | -        | -    | -      | -    | -    |
| Platoon blocked, %       |        |          | -    | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 531      | -    | -      | 524  | -    |
| Mov Cap-2 Maneuver       | -      | -        | -    | -      | -    | -    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Approach                 | WB     | NB       |      | SB     |      |      |
| HCM Control Delay, s     | 12     | 0        |      | 0.1    |      |      |
| HCM LOS                  | B      |          |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL  | SBT    |      |      |
| Capacity (veh/h)         | -      | -        | 531  | 524    | -    |      |
| HCM Lane V/C Ratio       | -      | -        | 0.03 | 0.008  | -    |      |
| HCM Control Delay (s)    | -      | -        | 12   | 11.9   | -    |      |
| HCM Lane LOS             | -      | -        | B    | B      | -    |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.1  | 0      | -    |      |

Lanes, Volumes, Timings  
7: Portola Av. & Retreat Circ. (S)

EAP (2024) PM Peak Hour

|                         |  |                                                                                   |                                                                                   |      |      |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations     |                                                                                   |  |  |      |      |  |
| Traffic Volume (vph)    | 0                                                                                 | 1                                                                                 | 726                                                                               | 1    | 0    | 489                                                                               |
| Future Volume (vph)     | 0                                                                                 | 1                                                                                 | 726                                                                               | 1    | 0    | 489                                                                               |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900 | 1900 | 1900                                                                              |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                   | 150  | 150  |                                                                                   |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                   | 0    | 0    |                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   |      | 90   |                                                                                   |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                |      |      | 55                                                                                |
| Link Distance (ft)      | 243                                                                               |                                                                                   | 194                                                                               |      |      | 417                                                                               |
| Travel Time (s)         | 5.5                                                                               |                                                                                   | 2.4                                                                               |      |      | 5.2                                                                               |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                   | 5    | 5    |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92 | 0.92 | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 1                                                                                 | 789                                                                               | 1    | 0    | 532                                                                               |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 1                                                                                 | 790                                                                               | 0    | 0    | 532                                                                               |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                              |      |      | Free                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |      |      |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |      |      |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |      |      |                                                                                   |

| Intersection             |        |          |         |        |      |      |
|--------------------------|--------|----------|---------|--------|------|------|
| Int Delay, s/veh         | 0      |          |         |        |      |      |
| Movement                 | WBL    | WBR      | NBT     | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗ ↘ ↘ ↘  | ↗ ↘ ↘ ↘ |        |      | ↗ ↘  |
| Traffic Vol, veh/h       | 0      | 1        | 726     | 1      | 0    | 489  |
| Future Vol, veh/h        | 0      | 1        | 726     | 1      | 0    | 489  |
| Conflicting Peds, #/hr   | 5      | 5        | 0       | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free    | Free   | Free | Free |
| RT Channelized           | -      | None     | -       | None   | -    | None |
| Storage Length           | -      | -        | -       | -      | -    | -    |
| Veh in Median Storage, # | 0      | -        | 0       | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0       | -      | -    | 0    |
| Peak Hour Factor         | 92     | 92       | 92      | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2        | 2       | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 1        | 789     | 1      | 0    | 532  |
| Major/Minor              | Minor1 | Major1   |         | Major2 |      |      |
| Conflicting Flow All     | -      | 405      | 0       | 0      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -       | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -        | -       | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -       | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -       | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 509      | -       | -      | 0    | -    |
| Stage 1                  | 0      | -        | -       | -      | 0    | -    |
| Stage 2                  | 0      | -        | -       | -      | 0    | -    |
| Platoon blocked, %       |        |          | -       | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 504      | -       | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -        | -       | -      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Approach                 | WB     | NB       |         | SB     |      |      |
| HCM Control Delay, s     | 12.2   | 0        |         | 0      |      |      |
| HCM LOS                  | B      |          |         |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |         | SBT    |      |      |
| Capacity (veh/h)         | -      | 504      |         | -      |      |      |
| HCM Lane V/C Ratio       | -      | 0.002    |         | -      |      |      |
| HCM Control Delay (s)    | -      | 12.2     |         | -      |      |      |
| HCM Lane LOS             | -      | B        |         | -      |      |      |
| HCM 95th %tile Q(veh)    | -      | 0        |         | -      |      |      |

Lanes, Volumes, Timings  
8: Portola Av. & Willow Ridge

EAP (2024) PM Peak Hour

|                         |  |  |                                                                                    |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                 | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |  |  |   |  |  |   |
| Traffic Volume (vph)    | 46                                                                                | 27                                                                                | 705                                                                                                                                                                 | 42                                                                                | 31                                                                                | 465                                                                                                                                                                 |
| Future Volume (vph)     | 47                                                                                | 28                                                                                | 705                                                                                                                                                                 | 42                                                                                | 31                                                                                | 465                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 0                                                                                 | 50                                                                                |                                                                                                                                                                     | 150                                                                               | 100                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                     |                                                                                   | 60                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                  |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 309                                                                               |                                                                                   | 2578                                                                                                                                                                |                                                                                   |                                                                                   | 801                                                                                                                                                                 |
| Travel Time (s)         | 7.0                                                                               |                                                                                   | 32.0                                                                                                                                                                |                                                                                   |                                                                                   | 9.9                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                |
| Adj. Flow (vph)         | 51                                                                                | 30                                                                                | 758                                                                                                                                                                 | 45                                                                                | 33                                                                                | 500                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 51                                                                                | 30                                                                                | 758                                                                                                                                                                 | 45                                                                                | 33                                                                                | 500                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 46                                                                                | 27                                                                                | 705                                                                               | 42                                                                                | 31                                                                                | 465                                                                               |
| Future Vol, veh/h        | 47                                                                                | 28                                                                                | 705                                                                               | 42                                                                                | 31                                                                                | 465                                                                               |
| Conflicting Peds, #/hr   | 5                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 50                                                                                | -                                                                                 | 150                                                                               | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 51                                                                                | 30                                                                                | 758                                                                               | 45                                                                                | 33                                                                                | 500                                                                               |
| Major/Minor              | Minor1                                                                            | Major1                                                                            | Major2                                                                            |                                                                                   |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1084                                                                              | 389                                                                               | 0                                                                                 | 0                                                                                 | 808                                                                               | 0                                                                                 |
| Stage 1                  | 763                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 321                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| 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       | 211                                                                               | 610                                                                               | -                                                                                 | -                                                                                 | 813                                                                               | -                                                                                 |
| Stage 1                  | 421                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 708                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 200                                                                               | 604                                                                               | -                                                                                 | -                                                                                 | 809                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver       | 319                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 419                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 675                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB                                                                                | SB                                                                                |                                                                                   |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 15.7                                                                              | 0                                                                                 | 0.6                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT                                                                               |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | - 319 604                                                                         | 809                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | - 0.158 0.05                                                                      | 0.041                                                                             | -                                                                                 |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | - 18.4 11.3                                                                       | 9.6                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane LOS             | -                                                                                 | - C B                                                                             | A                                                                                 | -                                                                                 |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | - 0.6 0.2                                                                         | 0.1                                                                               | -                                                                                 |                                                                                   |                                                                                   |

Lanes, Volumes, Timings  
9: Portola Av. & Country Club Dr.

EAP (2024) PM Peak Hour

|                         |  |                                                                                    |  |  |                                                                                    |  |   |                                                                                      |  |  |                                                                                      |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                     | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations     |  |   |  |  |   |  |  |   |  |  |   |  |
| Traffic Volume (vph)    | 50                                                                                | 771                                                                                                                                                                 | 175                                                                               | 184                                                                               | 552                                                                                                                                                                 | 139                                                                               | 170                                                                                 | 489                                                                                                                                                                     | 177                                                                                 | 83                                                                                  | 407                                                                                                                                                                     | 60                                                                                  |
| Future Volume (vph)     | 50                                                                                | 771                                                                                                                                                                 | 175                                                                               | 184                                                                               | 552                                                                                                                                                                 | 139                                                                               | 170                                                                                 | 489                                                                                                                                                                     | 177                                                                                 | 83                                                                                  | 407                                                                                                                                                                     | 60                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                | 1900                                                                                                                                                                    | 1900                                                                                | 1900                                                                                | 1900                                                                                                                                                                    | 1900                                                                                |
| Storage Length (ft)     | 200                                                                               |                                                                                                                                                                     | 105                                                                               | 180                                                                               |                                                                                                                                                                     | 80                                                                                | 160                                                                                 |                                                                                                                                                                         | 135                                                                                 | 200                                                                                 |                                                                                                                                                                         | 50                                                                                  |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                   |                                                                                                                                                                         | 1                                                                                   | 1                                                                                   |                                                                                                                                                                         | 1                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                                                                                                     |                                                                                   | 100                                                                                 |                                                                                                                                                                         |                                                                                     | 60                                                                                  |                                                                                                                                                                         |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                                                                                                     | Yes                                                                               |                                                                                   |                                                                                                                                                                     | Yes                                                                               |                                                                                     |                                                                                                                                                                         | Yes                                                                                 |                                                                                     |                                                                                                                                                                         | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                     | 55                                                                                                                                                                      |                                                                                     |                                                                                     | 55                                                                                                                                                                      |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1030                                                                                                                                                                |                                                                                   |                                                                                   | 784                                                                                                                                                                 |                                                                                   |                                                                                     | 945                                                                                                                                                                     |                                                                                     |                                                                                     | 2578                                                                                                                                                                    |                                                                                     |
| Travel Time (s)         |                                                                                   | 14.0                                                                                                                                                                |                                                                                   |                                                                                   | 10.7                                                                                                                                                                |                                                                                   |                                                                                     | 11.7                                                                                                                                                                    |                                                                                     |                                                                                     | 32.0                                                                                                                                                                    |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                   |                                                                                                                                                                         | 5                                                                                   | 5                                                                                   |                                                                                                                                                                         | 5                                                                                   |
| Peak Hour Factor        | 0.97                                                                              | 0.97                                                                                                                                                                | 0.97                                                                              | 0.97                                                                              | 0.97                                                                                                                                                                | 0.97                                                                              | 0.97                                                                                | 0.97                                                                                                                                                                    | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                                                                                                    | 0.97                                                                                |
| Adj. Flow (vph)         | 52                                                                                | 795                                                                                                                                                                 | 180                                                                               | 190                                                                               | 569                                                                                                                                                                 | 143                                                                               | 175                                                                                 | 504                                                                                                                                                                     | 182                                                                                 | 86                                                                                  | 420                                                                                                                                                                     | 62                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Lane Group Flow (vph)   | 52                                                                                | 795                                                                                                                                                                 | 180                                                                               | 190                                                                               | 569                                                                                                                                                                 | 143                                                                               | 175                                                                                 | 504                                                                                                                                                                     | 182                                                                                 | 86                                                                                  | 420                                                                                                                                                                     | 62                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                              | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                | NA                                                                                                                                                                      | Perm                                                                                | Prot                                                                                | NA                                                                                                                                                                      | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                                                                                                   |                                                                                   | 3                                                                                 | 8                                                                                                                                                                   |                                                                                   | 5                                                                                   | 2                                                                                                                                                                       |                                                                                     | 1                                                                                   | 6                                                                                                                                                                       |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                                                                                                     | 4                                                                                 |                                                                                   |                                                                                                                                                                     | 8                                                                                 |                                                                                     |                                                                                                                                                                         | 2                                                                                   |                                                                                     |                                                                                                                                                                         | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                                                                                                   | 4                                                                                 | 3                                                                                 | 8                                                                                                                                                                   | 8                                                                                 | 5                                                                                   | 2                                                                                                                                                                       | 2                                                                                   | 1                                                                                   | 6                                                                                                                                                                       | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                         |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                                                                                                     | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                                                                                                     | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                               | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                                                                                                    | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                                                                                                    | 20.0                                                                                |
| Total Split (s)         | 14.0                                                                              | 40.0                                                                                                                                                                | 40.0                                                                              | 27.0                                                                              | 53.0                                                                                                                                                                | 53.0                                                                              | 25.2                                                                                | 36.0                                                                                                                                                                    | 36.0                                                                                | 17.0                                                                                | 27.8                                                                                                                                                                    | 27.8                                                                                |
| Total Split (%)         | 11.7%                                                                             | 33.3%                                                                                                                                                               | 33.3%                                                                             | 22.5%                                                                             | 44.2%                                                                                                                                                               | 44.2%                                                                             | 21.0%                                                                               | 30.0%                                                                                                                                                                   | 30.0%                                                                               | 14.2%                                                                               | 23.2%                                                                                                                                                                   | 23.2%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                                                                                                     | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                               | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                                                                                                     | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                                                                                                     | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                     | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                     | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                                                                                                     | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                | Lag                                                                                                                                                                     | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                     | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                 | Yes                                                                                                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                     | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                                                                                                                | None                                                                              | None                                                                              | None                                                                                                                                                                | None                                                                              | None                                                                                | C-Max                                                                                                                                                                   | C-Max                                                                               | None                                                                                | C-Max                                                                                                                                                                   | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 120

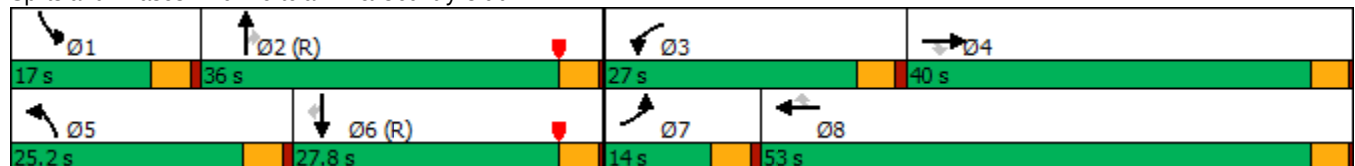
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 9: Portola Av. & Country Club Dr.



HCM 6th Signalized Intersection Summary  
9: Portola Av. & Country Club Dr.

EAP (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 50                                                                                | 771                                                                               | 175                                                                               | 184                                                                               | 552                                                                               | 139                                                                               | 170                                                                                 | 489                                                                                 | 177                                                                                 | 83                                                                                  | 407                                                                                 | 60                                                                                  |
| Future Volume (veh/h)        | 50                                                                                | 771                                                                               | 175                                                                               | 184                                                                               | 552                                                                               | 139                                                                               | 170                                                                                 | 489                                                                                 | 177                                                                                 | 83                                                                                  | 407                                                                                 | 60                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 52                                                                                | 795                                                                               | 180                                                                               | 190                                                                               | 569                                                                               | 143                                                                               | 175                                                                                 | 504                                                                                 | 182                                                                                 | 86                                                                                  | 420                                                                                 | 62                                                                                  |
| Peak Hour Factor             | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 67                                                                                | 921                                                                               | 408                                                                               | 220                                                                               | 1226                                                                              | 544                                                                               | 204                                                                                 | 1474                                                                                | 655                                                                                 | 109                                                                                 | 1283                                                                                | 570                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.26                                                                              | 0.26                                                                              | 0.12                                                                              | 0.34                                                                              | 0.34                                                                              | 0.11                                                                                | 0.41                                                                                | 0.41                                                                                | 0.06                                                                                | 0.36                                                                                | 0.36                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1576                                                                              | 1781                                                                              | 3554                                                                              | 1578                                                                              | 1781                                                                                | 3554                                                                                | 1579                                                                                | 1781                                                                                | 3554                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 52                                                                                | 795                                                                               | 180                                                                               | 190                                                                               | 569                                                                               | 143                                                                               | 175                                                                                 | 504                                                                                 | 182                                                                                 | 86                                                                                  | 420                                                                                 | 62                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1576                                                                              | 1781                                                                              | 1777                                                                              | 1578                                                                              | 1781                                                                                | 1777                                                                                | 1579                                                                                | 1781                                                                                | 1777                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 3.5                                                                               | 25.6                                                                              | 11.5                                                                              | 12.6                                                                              | 15.0                                                                              | 7.8                                                                               | 11.6                                                                                | 11.6                                                                                | 9.1                                                                                 | 5.7                                                                                 | 10.3                                                                                | 3.1                                                                                 |
| Cycle Q Clear(g_c), s        | 3.5                                                                               | 25.6                                                                              | 11.5                                                                              | 12.6                                                                              | 15.0                                                                              | 7.8                                                                               | 11.6                                                                                | 11.6                                                                                | 9.1                                                                                 | 5.7                                                                                 | 10.3                                                                                | 3.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 67                                                                                | 921                                                                               | 408                                                                               | 220                                                                               | 1226                                                                              | 544                                                                               | 204                                                                                 | 1474                                                                                | 655                                                                                 | 109                                                                                 | 1283                                                                                | 570                                                                                 |
| V/C Ratio(X)                 | 0.77                                                                              | 0.86                                                                              | 0.44                                                                              | 0.86                                                                              | 0.46                                                                              | 0.26                                                                              | 0.86                                                                                | 0.34                                                                                | 0.28                                                                                | 0.79                                                                                | 0.33                                                                                | 0.11                                                                                |
| Avail Cap(c_a), veh/h        | 141                                                                               | 1066                                                                              | 473                                                                               | 334                                                                               | 1451                                                                              | 644                                                                               | 307                                                                                 | 1474                                                                                | 655                                                                                 | 186                                                                                 | 1283                                                                                | 570                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 57.2                                                                              | 42.4                                                                              | 37.2                                                                              | 51.6                                                                              | 30.7                                                                              | 28.3                                                                              | 52.1                                                                                | 24.0                                                                                | 23.2                                                                                | 55.6                                                                                | 27.8                                                                                | 25.5                                                                                |
| Incr Delay (d2), s/veh       | 17.0                                                                              | 6.7                                                                               | 0.7                                                                               | 13.7                                                                              | 0.3                                                                               | 0.3                                                                               | 14.0                                                                                | 0.6                                                                                 | 1.1                                                                                 | 11.9                                                                                | 0.7                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.8                                                                               | 11.6                                                                              | 4.3                                                                               | 6.2                                                                               | 6.2                                                                               | 2.9                                                                               | 5.7                                                                                 | 4.7                                                                                 | 3.4                                                                                 | 2.8                                                                                 | 4.2                                                                                 | 1.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 74.2                                                                              | 49.1                                                                              | 37.9                                                                              | 65.3                                                                              | 30.9                                                                              | 28.6                                                                              | 66.2                                                                                | 24.6                                                                                | 24.3                                                                                | 67.5                                                                                | 28.5                                                                                | 25.9                                                                                |
| LnGrp LOS                    | E                                                                                 | D                                                                                 | D                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | E                                                                                   | C                                                                                   | C                                                                                   | E                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1027                                                                              |                                                                                   |                                                                                   | 902                                                                               |                                                                                   |                                                                                     | 861                                                                                 |                                                                                     |                                                                                     | 568                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 48.4                                                                              |                                                                                   |                                                                                   | 37.8                                                                              |                                                                                   |                                                                                     | 33.0                                                                                |                                                                                     |                                                                                     | 34.1                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 11.8                                                                              | 53.8                                                                              | 19.3                                                                              | 35.1                                                                              | 18.3                                                                              | 47.3                                                                              | 9.0                                                                                 | 45.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 12.5                                                                              | 32.0                                                                              | 22.5                                                                              | 36.0                                                                              | 20.7                                                                              | 23.8                                                                              | 9.5                                                                                 | 49.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 7.7                                                                               | 13.6                                                                              | 14.6                                                                              | 27.6                                                                              | 13.6                                                                              | 12.3                                                                              | 5.5                                                                                 | 17.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 3.2                                                                               | 0.3                                                                               | 3.5                                                                               | 0.2                                                                               | 1.9                                                                               | 0.0                                                                                 | 4.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 39.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
10: Portola Av. & South Access

EAP (2024) PM Peak Hour

|                         |  |  |  |                                                                                                                                                                      |                                                                                    |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                                                                                                                                                                                                   | SBT                                                                                                                                                                 | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |                                                                                   |    |   |                                                                                   |
| Traffic Volume (vph)    | 0                                                                                 | 8                                                                                 | 0                                                                                 | 727                                                                                                                                                                                                                                                   | 489                                                                                                                                                                 | 0                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 8                                                                                 | 0                                                                                 | 727                                                                                                                                                                                                                                                   | 489                                                                                                                                                                 | 0                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                                                                                                                | 1900                                                                              |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                                                                                                                                                                                    | 55                                                                                                                                                                  |                                                                                   |
| Link Distance (ft)      | 244                                                                               |                                                                                   |                                                                                   | 468                                                                                                                                                                                                                                                   | 194                                                                                                                                                                 |                                                                                   |
| Travel Time (s)         | 5.5                                                                               |                                                                                   |                                                                                   | 5.8                                                                                                                                                                                                                                                   | 2.4                                                                                                                                                                 |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                                                                                                                | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 9                                                                                 | 0                                                                                 | 790                                                                                                                                                                                                                                                   | 532                                                                                                                                                                 | 0                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 9                                                                                 | 0                                                                                 | 790                                                                                                                                                                                                                                                   | 532                                                                                                                                                                 | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                                                                                                                                                                                                  | Free                                                                                                                                                                |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |

| Intersection             |           |        |      |        |      |      |
|--------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh         | 0.1       |        |      |        |      |      |
| Movement                 | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations      |           | ↗      |      | ↑↑↑    | ↑↑   |      |
| Traffic Vol, veh/h       | 0         | 8      | 0    | 727    | 489  | 0    |
| Future Vol, veh/h        | 0         | 8      | 0    | 727    | 489  | 0    |
| Conflicting Peds, #/hr   | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control             | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized           | -         | None   | -    | None   | -    | None |
| Storage Length           | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, # | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                 | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor         | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0         | 9      | 0    | 790    | 532  | 0    |
|                          |           |        |      |        |      |      |
| Major/Minor              | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All     | -         | 266    | -    | 0      | -    | 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         | 732    | 0    | -      | -    | 0    |
| Stage 1                  | 0         | -      | 0    | -      | -    | 0    |
| Stage 2                  | 0         | -      | 0    | -      | -    | 0    |
| Platoon blocked, %       |           |        |      | -      | -    |      |
| Mov Cap-1 Maneuver       | -         | 732    | -    | -      | -    | -    |
| Mov Cap-2 Maneuver       | -         | -      | -    | -      | -    | -    |
| Stage 1                  | -         | -      | -    | -      | -    | -    |
| Stage 2                  | -         | -      | -    | -      | -    | -    |
|                          |           |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Approach                 | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s     | 10        | 0      |      | 0      |      |      |
| HCM LOS                  | B         |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT EBLn1 |        | SBT  |        |      |      |
| Capacity (veh/h)         | - 732     |        | -    |        |      |      |
| HCM Lane V/C Ratio       | - 0.012   |        | -    |        |      |      |
| HCM Control Delay (s)    | - 10      |        | -    |        |      |      |
| HCM Lane LOS             | - B       |        | -    |        |      |      |
| HCM 95th %tile Q(veh)    | - 0       |        | -    |        |      |      |

Lanes, Volumes, Timings  
11: Cook St. & University Park Dr./Berger Dr.

EAP (2024) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 49                                                                                | 4                                                                                 | 31                                                                                | 17                                                                                | 6                                                                                 | 58                                                                                | 43                                                                                 | 1267                                                                                | 9                                                                                   | 46                                                                                  | 1032                                                                                | 43                                                                                  |
| Future Volume (vph)     | 49                                                                                | 4                                                                                 | 31                                                                                | 17                                                                                | 6                                                                                 | 58                                                                                | 43                                                                                 | 1267                                                                                | 9                                                                                   | 46                                                                                  | 1032                                                                                | 43                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 180                                                                               |                                                                                   | 180                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 140                                                                                |                                                                                     | 140                                                                                 | 225                                                                                 |                                                                                     | 295                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 160                                                                                |                                                                                     |                                                                                     | 165                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 460                                                                               |                                                                                   |                                                                                    | 1610                                                                                |                                                                                     |                                                                                     | 602                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 10.2                                                                              |                                                                                   |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                    | 20.0                                                                                |                                                                                     |                                                                                     | 7.5                                                                                 |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                               | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 54                                                                                | 4                                                                                 | 34                                                                                | 19                                                                                | 7                                                                                 | 64                                                                                | 48                                                                                 | 1408                                                                                | 10                                                                                  | 51                                                                                  | 1147                                                                                | 48                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 54                                                                                | 4                                                                                 | 34                                                                                | 19                                                                                | 7                                                                                 | 64                                                                                | 48                                                                                 | 1408                                                                                | 10                                                                                  | 51                                                                                  | 1147                                                                                | 48                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 21.0                                                                                | 21.0                                                                                | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 35.0%                                                                               | 35.0%                                                                               | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 11: Cook St. & University Park Dr./Berger Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 11: Cook St. & University Park Dr./Berger Dr.

EAP (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 49                                                                                | 4                                                                                 | 31                                                                                | 17                                                                                | 6                                                                                 | 58                                                                                | 43                                                                                  | 1267                                                                                | 9                                                                                   | 46                                                                                  | 1032                                                                                | 43                                                                                  |
| Future Volume (veh/h)        | 49                                                                                | 4                                                                                 | 31                                                                                | 17                                                                                | 6                                                                                 | 58                                                                                | 43                                                                                  | 1267                                                                                | 9                                                                                   | 46                                                                                  | 1032                                                                                | 43                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 54                                                                                | 4                                                                                 | 34                                                                                | 19                                                                                | 7                                                                                 | 0                                                                                 | 48                                                                                  | 1408                                                                                | 0                                                                                   | 51                                                                                  | 1147                                                                                | 48                                                                                  |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 88                                                                                | 166                                                                               | 138                                                                               | 40                                                                                | 116                                                                               |                                                                                   | 82                                                                                  | 2847                                                                                |                                                                                     | 165                                                                                 | 2857                                                                                | 883                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.09                                                                              | 0.09                                                                              | 0.02                                                                              | 0.06                                                                              | 0.00                                                                              | 0.09                                                                                | 1.00                                                                                | 0.00                                                                                | 0.05                                                                                | 0.56                                                                                | 0.56                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 1870                                                                              | 1558                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 5106                                                                                | 1585                                                                                | 3456                                                                                | 5106                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 54                                                                                | 4                                                                                 | 34                                                                                | 19                                                                                | 7                                                                                 | 0                                                                                 | 48                                                                                  | 1408                                                                                | 0                                                                                   | 51                                                                                  | 1147                                                                                | 48                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1870                                                                              | 1558                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 1702                                                                                | 1585                                                                                | 1728                                                                                | 1702                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 1.8                                                                               | 0.1                                                                               | 1.2                                                                               | 0.6                                                                               | 0.2                                                                               | 0.0                                                                               | 1.6                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 7.7                                                                                 | 0.8                                                                                 |
| Cycle Q Clear(g_c), s        | 1.8                                                                               | 0.1                                                                               | 1.2                                                                               | 0.6                                                                               | 0.2                                                                               | 0.0                                                                               | 1.6                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 7.7                                                                                 | 0.8                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 88                                                                                | 166                                                                               | 138                                                                               | 40                                                                                | 116                                                                               |                                                                                   | 82                                                                                  | 2847                                                                                |                                                                                     | 165                                                                                 | 2857                                                                                | 883                                                                                 |
| V/C Ratio(X)                 | 0.61                                                                              | 0.02                                                                              | 0.25                                                                              | 0.47                                                                              | 0.06                                                                              |                                                                                   | 0.59                                                                                | 0.49                                                                                |                                                                                     | 0.31                                                                                | 0.40                                                                                | 0.05                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 499                                                                               | 416                                                                               | 148                                                                               | 499                                                                               |                                                                                   | 148                                                                                 | 2847                                                                                |                                                                                     | 288                                                                                 | 2857                                                                                | 883                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.32                                                                                | 0.32                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 28.0                                                                              | 25.0                                                                              | 25.5                                                                              | 29.0                                                                              | 26.5                                                                              | 0.0                                                                               | 26.7                                                                                | 0.0                                                                                 | 0.0                                                                                 | 27.6                                                                                | 7.5                                                                                 | 6.0                                                                                 |
| Incr Delay (d2), s/veh       | 6.7                                                                               | 0.1                                                                               | 0.9                                                                               | 8.3                                                                               | 0.2                                                                               | 0.0                                                                               | 2.1                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 1.1                                                                                 | 0.4                                                                                 | 0.1                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.9                                                                               | 0.1                                                                               | 0.5                                                                               | 0.4                                                                               | 0.1                                                                               | 0.0                                                                               | 0.6                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 1.8                                                                                 | 0.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 34.7                                                                              | 25.0                                                                              | 26.4                                                                              | 37.3                                                                              | 26.7                                                                              | 0.0                                                                               | 28.8                                                                                | 0.2                                                                                 | 0.0                                                                                 | 28.7                                                                                | 7.9                                                                                 | 6.1                                                                                 |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 |                                                                                   | C                                                                                   | A                                                                                   |                                                                                     | C                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 92                                                                                |                                                                                   |                                                                                   | 26                                                                                |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | 1456                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 31.2                                                                              |                                                                                   |                                                                                   | 34.4                                                                              |                                                                                   |                                                                                   | 1.1                                                                                 |                                                                                     |                                                                                     | 8.7                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.4                                                                               | 37.5                                                                              | 5.9                                                                               | 9.3                                                                               | 7.3                                                                               | 37.6                                                                              | 7.5                                                                                 | 7.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.9                                                                               | 2.0                                                                               | 2.6                                                                               | 3.2                                                                               | 3.6                                                                               | 9.7                                                                               | 3.8                                                                                 | 2.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 7.7                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 4.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 5.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## **APPENDIX 6.1:**

### **EAPC (2024) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

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Lanes, Volumes, Timings  
1: Monterey Av. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 53                                                                                | 331                                                                               | 129                                                                               | 210                                                                               | 708                                                                               | 110                                                                               | 87                                                                                 | 705                                                                                 | 43                                                                                  | 86                                                                                  | 1340                                                                                | 116                                                                                 |
| Future Volume (vph)     | 53                                                                                | 331                                                                               | 129                                                                               | 210                                                                               | 708                                                                               | 110                                                                               | 87                                                                                 | 705                                                                                 | 43                                                                                  | 86                                                                                  | 1340                                                                                | 116                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 160                                                                               |                                                                                   | 150                                                                               | 140                                                                               |                                                                                   | 140                                                                               | 250                                                                                |                                                                                     | 150                                                                                 | 200                                                                                 |                                                                                     | 175                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 100                                                                               |                                                                                   |                                                                                   | 120                                                                               |                                                                                   |                                                                                   | 120                                                                                |                                                                                     |                                                                                     | 120                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1182                                                                              |                                                                                   |                                                                                   | 5371                                                                              |                                                                                   |                                                                                    | 1281                                                                                |                                                                                     |                                                                                     | 1753                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 16.1                                                                              |                                                                                   |                                                                                   | 73.2                                                                              |                                                                                   |                                                                                    | 15.9                                                                                |                                                                                     |                                                                                     | 21.7                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                               | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 59                                                                                | 368                                                                               | 143                                                                               | 233                                                                               | 787                                                                               | 122                                                                               | 97                                                                                 | 783                                                                                 | 48                                                                                  | 96                                                                                  | 1489                                                                                | 129                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 59                                                                                | 368                                                                               | 143                                                                               | 233                                                                               | 787                                                                               | 122                                                                               | 97                                                                                 | 831                                                                                 | 0                                                                                   | 96                                                                                  | 1489                                                                                | 129                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 1: Monterey Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 1: Monterey Av. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 53                                                                                | 331                                                                               | 129                                                                               | 210                                                                               | 708                                                                               | 110                                                                               | 87                                                                                  | 705                                                                                 | 43                                                                                  | 86                                                                                  | 1340                                                                                | 116                                                                                 |
| Future Volume (veh/h)        | 53                                                                                | 331                                                                               | 129                                                                               | 210                                                                               | 708                                                                               | 110                                                                               | 87                                                                                  | 705                                                                                 | 43                                                                                  | 86                                                                                  | 1340                                                                                | 116                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 59                                                                                | 368                                                                               | 143                                                                               | 233                                                                               | 787                                                                               | 122                                                                               | 97                                                                                  | 783                                                                                 | 48                                                                                  | 96                                                                                  | 1489                                                                                | 129                                                                                 |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 180                                                                               | 803                                                                               | 356                                                                               | 288                                                                               | 914                                                                               | 405                                                                               | 231                                                                                 | 1676                                                                                | 102                                                                                 | 230                                                                                 | 1738                                                                                | 537                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.23                                                                              | 0.23                                                                              | 0.08                                                                              | 0.26                                                                              | 0.26                                                                              | 0.07                                                                                | 0.34                                                                                | 0.34                                                                                | 0.07                                                                                | 0.34                                                                                | 0.34                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1575                                                                              | 3456                                                                              | 3554                                                                              | 1576                                                                              | 3456                                                                                | 4918                                                                                | 300                                                                                 | 3456                                                                                | 5106                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 59                                                                                | 368                                                                               | 143                                                                               | 233                                                                               | 787                                                                               | 122                                                                               | 97                                                                                  | 541                                                                                 | 290                                                                                 | 96                                                                                  | 1489                                                                                | 129                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1575                                                                              | 1728                                                                              | 1777                                                                              | 1576                                                                              | 1728                                                                                | 1702                                                                                | 1815                                                                                | 1728                                                                                | 1702                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 1.0                                                                               | 5.4                                                                               | 4.6                                                                               | 4.0                                                                               | 12.7                                                                              | 3.7                                                                               | 1.6                                                                                 | 7.5                                                                                 | 7.5                                                                                 | 1.6                                                                                 | 16.3                                                                                | 3.5                                                                                 |
| Cycle Q Clear(g_c), s        | 1.0                                                                               | 5.4                                                                               | 4.6                                                                               | 4.0                                                                               | 12.7                                                                              | 3.7                                                                               | 1.6                                                                                 | 7.5                                                                                 | 7.5                                                                                 | 1.6                                                                                 | 16.3                                                                                | 3.5                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.17                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 180                                                                               | 803                                                                               | 356                                                                               | 288                                                                               | 914                                                                               | 405                                                                               | 231                                                                                 | 1160                                                                                | 618                                                                                 | 230                                                                                 | 1738                                                                                | 537                                                                                 |
| V/C Ratio(X)                 | 0.33                                                                              | 0.46                                                                              | 0.40                                                                              | 0.81                                                                              | 0.86                                                                              | 0.30                                                                              | 0.42                                                                                | 0.47                                                                                | 0.47                                                                                | 0.42                                                                                | 0.86                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                                 | 1160                                                                                | 618                                                                                 | 288                                                                                 | 1738                                                                                | 537                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.4                                                                              | 20.0                                                                              | 19.8                                                                              | 27.0                                                                              | 21.3                                                                              | 17.9                                                                              | 26.9                                                                                | 15.5                                                                                | 15.5                                                                                | 26.9                                                                                | 18.4                                                                                | 14.2                                                                                |
| Incr Delay (d2), s/veh       | 1.0                                                                               | 0.4                                                                               | 0.7                                                                               | 15.7                                                                              | 7.9                                                                               | 0.4                                                                               | 1.2                                                                                 | 1.3                                                                                 | 2.5                                                                                 | 1.2                                                                                 | 5.7                                                                                 | 1.1                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.4                                                                               | 1.9                                                                               | 1.5                                                                               | 2.1                                                                               | 5.3                                                                               | 1.2                                                                               | 0.6                                                                                 | 2.5                                                                                 | 2.8                                                                                 | 0.6                                                                                 | 5.8                                                                                 | 1.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 28.5                                                                              | 20.5                                                                              | 20.5                                                                              | 42.7                                                                              | 29.2                                                                              | 18.4                                                                              | 28.1                                                                                | 16.9                                                                                | 18.1                                                                                | 28.1                                                                                | 24.1                                                                                | 15.3                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 | B                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | C                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 570                                                                               |                                                                                   |                                                                                   | 1142                                                                              |                                                                                   |                                                                                   | 928                                                                                 |                                                                                     |                                                                                     | 1714                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 21.3                                                                              |                                                                                   |                                                                                   | 30.8                                                                              |                                                                                   |                                                                                   | 18.4                                                                                |                                                                                     |                                                                                     | 23.7                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.5                                                                               | 24.4                                                                              | 9.5                                                                               | 17.6                                                                              | 8.5                                                                               | 24.4                                                                              | 7.6                                                                                 | 19.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.6                                                                               | 9.5                                                                               | 6.0                                                                               | 7.4                                                                               | 3.6                                                                               | 18.3                                                                              | 3.0                                                                                 | 14.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.8                                                                               | 0.0                                                                               | 1.7                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 24.1                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
2: Portola Av. & Central Access

EAPC (2024) AM Peak Hour

|                         |  |  |  |                                                                                                                                                                      |                                                                                    |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                                                                                                                                                                                                   | SBT                                                                                                                                                                 | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |  |    |   |  |
| Traffic Volume (vph)    | 0                                                                                 | 36                                                                                | 16                                                                                | 669                                                                                                                                                                                                                                                   | 750                                                                                                                                                                 | 24                                                                                |
| Future Volume (vph)     | 0                                                                                 | 36                                                                                | 16                                                                                | 669                                                                                                                                                                                                                                                   | 750                                                                                                                                                                 | 24                                                                                |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                                                                                                                | 1900                                                                              |
| Storage Length (ft)     | 0                                                                                 | 0                                                                                 | 220                                                                               |                                                                                                                                                                                                                                                       |                                                                                                                                                                     | 90                                                                                |
| Storage Lanes           | 0                                                                                 | 1                                                                                 | 1                                                                                 |                                                                                                                                                                                                                                                       |                                                                                                                                                                     | 1                                                                                 |
| Taper Length (ft)       | 90                                                                                |                                                                                   | 60                                                                                |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                                                                                                                                                                                    | 55                                                                                                                                                                  |                                                                                   |
| Link Distance (ft)      | 265                                                                               |                                                                                   |                                                                                   | 417                                                                                                                                                                                                                                                   | 282                                                                                                                                                                 |                                                                                   |
| Travel Time (s)         | 6.0                                                                               |                                                                                   |                                                                                   | 5.2                                                                                                                                                                                                                                                   | 3.5                                                                                                                                                                 |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                                                                                                                | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 39                                                                                | 17                                                                                | 727                                                                                                                                                                                                                                                   | 815                                                                                                                                                                 | 26                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 39                                                                                | 17                                                                                | 727                                                                                                                                                                                                                                                   | 815                                                                                                                                                                 | 26                                                                                |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                                                                                                                                                                                                  | Free                                                                                                                                                                |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |

HCM 6th TWSC  
2: Portola Av. & Central Access

EAPC (2024) AM Peak Hour

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.4    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      |        | ↗      | ↘     | ↑↑↑    | ↑↑   | ↗    |
| Traffic Vol, veh/h       | 0      | 36     | 16    | 669    | 750  | 24   |
| Future Vol, veh/h        | 0      | 36     | 16    | 669    | 750  | 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      | 220   | -      | -    | 90   |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92    | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 39     | 17    | 727    | 815  | 26   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | -      | 408    | 841   | 0      | -    | 0    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Critical Hdwy            | -      | 6.94   | 4.14  | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.32   | 2.22  | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 593    | 790   | -      | -    | -    |
| Stage 1                  | 0      | -      | -     | -      | -    | -    |
| Stage 2                  | 0      | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 593    | 790   | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -      | -     | -      | -    | -    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 11.5   | 0.2    |       | 0      |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 790    | -      | 593   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.022  | -      | 0.066 | -      | -    |      |
| HCM Control Delay (s)    | 9.7    | -      | 11.5  | -      | -    |      |
| HCM Lane LOS             | A      | -      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | 0.2   | -      | -    |      |

Lanes, Volumes, Timings  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                         |  |                                                                                    |  |  |                                                                                    |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |   |                                                                                   |                                                                                   |   |  |                                                                                    |                                                                                     |  |                                                                                     |                                                                                     |  |
| Traffic Volume (vph)    | 23                                                                                | 505                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 921                                                                                                                                                                 | 19                                                                                | 0                                                                                  | 0                                                                                   | 73                                                                                  | 0                                                                                   | 0                                                                                   | 73                                                                                  |
| Future Volume (vph)     | 23                                                                                | 505                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 921                                                                                                                                                                 | 19                                                                                | 0                                                                                  | 0                                                                                   | 73                                                                                  | 0                                                                                   | 0                                                                                   | 73                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                                                                                                     | 150                                                                               | 150                                                                               |                                                                                                                                                                     | 50                                                                                | 0                                                                                  |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 150                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     | 1                                                                                 | 0                                                                                  |                                                                                     | 1                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                                                                                                     |                                                                                   | 90                                                                                 |                                                                                     |                                                                                     | 90                                                                                  |                                                                                     |                                                                                     |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 5371                                                                                                                                                                |                                                                                   |                                                                                   | 693                                                                                                                                                                 |                                                                                   |                                                                                    | 244                                                                                 |                                                                                     |                                                                                     | 810                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 73.2                                                                                                                                                                |                                                                                   |                                                                                   | 9.5                                                                                                                                                                 |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     | 18.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     | 5                                                                                 |                                                                                    |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.91                                                                              | 0.91                                                                                                                                                                | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                                                                                                | 0.91                                                                              | 0.91                                                                               | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Adj. Flow (vph)         | 25                                                                                | 555                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 1012                                                                                                                                                                | 21                                                                                | 0                                                                                  | 0                                                                                   | 80                                                                                  | 0                                                                                   | 0                                                                                   | 80                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 25                                                                                | 555                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 1012                                                                                                                                                                | 21                                                                                | 0                                                                                  | 0                                                                                   | 80                                                                                  | 0                                                                                   | 0                                                                                   | 80                                                                                  |
| Sign Control            |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Intersection Summary    |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:              | Other                                                                             |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.3                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT  | NBR                                                                               | SBL  | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |      |  |      |      |  |
| Traffic Vol, veh/h       | 23                                                                                | 505                                                                               | 0    | 0    | 921                                                                               | 19                                                                                | 0    | 0    | 73                                                                                | 0    | 0    | 73                                                                                  |
| Future Vol, veh/h        | 23                                                                                | 505                                                                               | 0    | 0    | 921                                                                               | 19                                                                                | 0    | 0    | 73                                                                                | 0    | 0    | 73                                                                                  |
| Conflicting Peds, #/hr   | 5                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 5                                                                                 | 0    | 0    | 0                                                                                 | 5    | 0    | 5                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -    | None                                                                              | -    | -    | None                                                                                |
| Storage Length           | 140                                                                               | -                                                                                 | -    | -    | -                                                                                 | 50                                                                                | -    | -    | 0                                                                                 | -    | -    | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                 | -    | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                 | -    | 0    | -                                                                                   |
| Peak Hour Factor         | 91                                                                                | 91                                                                                | 91   | 91   | 91                                                                                | 91                                                                                | 91   | 91   | 91                                                                                | 91   | 91   | 91                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   |
| Mvmt Flow                | 25                                                                                | 555                                                                               | 0    | 0    | 1012                                                                              | 21                                                                                | 0    | 0    | 80                                                                                | 0    | 0    | 80                                                                                  |

| Major/Minor          | Major1 |   | Major2 |   | Minor1 |   | Minor2 |   |
|----------------------|--------|---|--------|---|--------|---|--------|---|
| Conflicting Flow All | 1038   | 0 | -      | - | -      | 0 | -      | - |
| Stage 1              | -      | - | -      | - | -      | - | -      | - |
| Stage 2              | -      | - | -      | - | -      | - | -      | - |
| Critical Hdwy        | 4.14   | - | -      | - | -      | - | 6.94   | - |
| Critical Hdwy Stg 1  | -      | - | -      | - | -      | - | -      | - |
| Critical Hdwy Stg 2  | -      | - | -      | - | -      | - | -      | - |
| Follow-up Hdwy       | 2.22   | - | -      | - | -      | - | 3.32   | - |
| Pot Cap-1 Maneuver   | 665    | - | 0      | 0 | -      | - | 0      | 0 |
| Stage 1              | -      | - | 0      | 0 | -      | - | 0      | 0 |
| Stage 2              | -      | - | 0      | 0 | -      | - | 0      | 0 |
| Platoon blocked, %   | -      | - | -      | - | -      | - | -      | - |
| Mov Cap-1 Maneuver   | 662    | - | -      | - | -      | - | 719    | - |
| Mov Cap-2 Maneuver   | -      | - | -      | - | -      | - | -      | - |
| Stage 1              | -      | - | -      | - | -      | - | -      | - |
| Stage 2              | -      | - | -      | - | -      | - | -      | - |

| Approach             | EB  | WB | NB   | SB   |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 0.5 | 0  | 10.6 | 13.6 |
| HCM LOS              |     |    | B    | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 719   | 662   | -   | -   | -   | 499   |
| HCM Lane V/C Ratio    | 0.112 | 0.038 | -   | -   | -   | 0.161 |
| HCM Control Delay (s) | 10.6  | 10.7  | -   | -   | -   | 13.6  |
| HCM Lane LOS          | B     | B     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.4   | 0.1   | -   | -   | -   | 0.6   |

Lanes, Volumes, Timings  
4: Portola Av. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                         |  |                                                                                    |  |  |                                                                                    |  |  |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations     |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (vph)    | 79                                                                                | 366                                                                                                                                                                 | 132                                                                               | 148                                                                               | 701                                                                                                                                                                 | 29                                                                                | 137                                                                                 | 483                                                                                                                                                                                                                                                         | 77                                                                                  | 62                                                                                  | 495                                                                                                                                                                                                                                                         | 76                                                                                  |
| Future Volume (vph)     | 79                                                                                | 366                                                                                                                                                                 | 132                                                                               | 148                                                                               | 701                                                                                                                                                                 | 29                                                                                | 137                                                                                 | 483                                                                                                                                                                                                                                                         | 77                                                                                  | 62                                                                                  | 495                                                                                                                                                                                                                                                         | 76                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                | 1900                                                                                                                                                                                                                                                        | 1900                                                                                | 1900                                                                                | 1900                                                                                                                                                                                                                                                        | 1900                                                                                |
| Storage Length (ft)     | 120                                                                               |                                                                                                                                                                     | 230                                                                               | 140                                                                               |                                                                                                                                                                     | 100                                                                               | 260                                                                                 |                                                                                                                                                                                                                                                             | 50                                                                                  | 180                                                                                 |                                                                                                                                                                                                                                                             | 0                                                                                   |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                   |                                                                                                                                                                                                                                                             | 1                                                                                   | 1                                                                                   |                                                                                                                                                                                                                                                             | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                                                                                                     |                                                                                   | 120                                                                                 |                                                                                                                                                                                                                                                             |                                                                                     | 190                                                                                 |                                                                                                                                                                                                                                                             |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                                                                                                     | Yes                                                                               |                                                                                   |                                                                                                                                                                     | Yes                                                                               |                                                                                     |                                                                                                                                                                                                                                                             | Yes                                                                                 |                                                                                     |                                                                                                                                                                                                                                                             | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                     | 55                                                                                                                                                                                                                                                          |                                                                                     |                                                                                     | 55                                                                                                                                                                                                                                                          |                                                                                     |
| Link Distance (ft)      |                                                                                   | 693                                                                                                                                                                 |                                                                                   |                                                                                   | 4512                                                                                                                                                                |                                                                                   |                                                                                     | 510                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 1159                                                                                                                                                                                                                                                        |                                                                                     |
| Travel Time (s)         |                                                                                   | 9.5                                                                                                                                                                 |                                                                                   |                                                                                   | 61.5                                                                                                                                                                |                                                                                   |                                                                                     | 6.3                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 14.4                                                                                                                                                                                                                                                        |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                   |                                                                                                                                                                                                                                                             | 5                                                                                   | 5                                                                                   |                                                                                                                                                                                                                                                             | 5                                                                                   |
| Peak Hour Factor        | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                |
| Adj. Flow (vph)         | 90                                                                                | 416                                                                                                                                                                 | 150                                                                               | 168                                                                               | 797                                                                                                                                                                 | 33                                                                                | 156                                                                                 | 549                                                                                                                                                                                                                                                         | 88                                                                                  | 70                                                                                  | 563                                                                                                                                                                                                                                                         | 86                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Lane Group Flow (vph)   | 90                                                                                | 416                                                                                                                                                                 | 150                                                                               | 168                                                                               | 797                                                                                                                                                                 | 33                                                                                | 156                                                                                 | 549                                                                                                                                                                                                                                                         | 88                                                                                  | 70                                                                                  | 649                                                                                                                                                                                                                                                         | 0                                                                                   |
| Turn Type               | Prot                                                                              | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                              | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                | NA                                                                                                                                                                                                                                                          | Perm                                                                                | Prot                                                                                | NA                                                                                                                                                                                                                                                          |                                                                                     |
| Protected Phases        | 7                                                                                 | 4                                                                                                                                                                   |                                                                                   | 3                                                                                 | 8                                                                                                                                                                   |                                                                                   | 5                                                                                   | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                   | 6                                                                                                                                                                                                                                                           |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                                                                                                     | 4                                                                                 |                                                                                   |                                                                                                                                                                     | 8                                                                                 |                                                                                     |                                                                                                                                                                                                                                                             | 2                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Detector Phase          | 7                                                                                 | 4                                                                                                                                                                   | 4                                                                                 | 3                                                                                 | 8                                                                                                                                                                   | 8                                                                                 | 5                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 1                                                                                   | 6                                                                                                                                                                                                                                                           |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                               | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                                                                                                                                                                                        | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                                                                                                                                                                                        |                                                                                     |
| Total Split (s)         | 10.0                                                                              | 20.0                                                                                                                                                                | 20.0                                                                              | 10.0                                                                              | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                 | 20.5                                                                                                                                                                                                                                                        | 20.5                                                                                | 9.5                                                                                 | 20.5                                                                                                                                                                                                                                                        |                                                                                     |
| Total Split (%)         | 16.7%                                                                             | 33.3%                                                                                                                                                               | 33.3%                                                                             | 16.7%                                                                             | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                               | 34.2%                                                                                                                                                                                                                                                       | 34.2%                                                                               | 15.8%                                                                               | 34.2%                                                                                                                                                                                                                                                       |                                                                                     |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                                                                                                                                                                                         | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                                                                                                                                                                                         |                                                                                     |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                               | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                                                                                                                                                                                         | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                                                                                                                                                                                         |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         |                                                                                     |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                              | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                | Lag                                                                                                                                                                                                                                                         | Lag                                                                                 | Lead                                                                                | Lag                                                                                                                                                                                                                                                         |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                 | Yes                                                                                                                                                                                                                                                         | Yes                                                                                 | Yes                                                                                 | Yes                                                                                                                                                                                                                                                         |                                                                                     |
| Recall Mode             | None                                                                              | None                                                                                                                                                                | None                                                                              | None                                                                              | None                                                                                                                                                                | None                                                                              | None                                                                                | C-Max                                                                                                                                                                                                                                                       | C-Max                                                                               | None                                                                                | C-Max                                                                                                                                                                                                                                                       |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 4: Portola Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 20.5 s                                                                                     | 10 s                                                                                   | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 20.5 s                                                                                     | 10 s                                                                                   | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary 4: Portola Av. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                              |  |                                                                                    |  |  |                                                                                    |  |  |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (veh/h)       | 79                                                                                | 366                                                                                                                                                                 | 132                                                                               | 148                                                                               | 701                                                                                                                                                                 | 29                                                                                | 137                                                                                 | 483                                                                                                                                                                                                                                                         | 77                                                                                  | 62                                                                                  | 495                                                                                                                                                                                                                                                         | 76                                                                                  |
| Future Volume (veh/h)        | 79                                                                                | 366                                                                                                                                                                 | 132                                                                               | 148                                                                               | 701                                                                                                                                                                 | 29                                                                                | 137                                                                                 | 483                                                                                                                                                                                                                                                         | 77                                                                                  | 62                                                                                  | 495                                                                                                                                                                                                                                                         | 76                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 90                                                                                | 416                                                                                                                                                                 | 150                                                                               | 168                                                                               | 797                                                                                                                                                                 | 33                                                                                | 156                                                                                 | 549                                                                                                                                                                                                                                                         | 88                                                                                  | 70                                                                                  | 562                                                                                                                                                                                                                                                         | 86                                                                                  |
| Peak Hour Factor             | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                              | 0.88                                                                                                                                                                | 0.88                                                                              | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                                                                                                                                                                                        | 0.88                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 115                                                                               | 822                                                                                                                                                                 | 364                                                                               | 163                                                                               | 918                                                                                                                                                                 | 407                                                                               | 148                                                                                 | 1717                                                                                                                                                                                                                                                        | 531                                                                                 | 102                                                                                 | 1389                                                                                                                                                                                                                                                        | 209                                                                                 |
| Arrive On Green              | 0.06                                                                              | 0.23                                                                                                                                                                | 0.23                                                                              | 0.09                                                                              | 0.26                                                                                                                                                                | 0.26                                                                              | 0.08                                                                                | 0.34                                                                                                                                                                                                                                                        | 0.34                                                                                | 0.06                                                                                | 0.31                                                                                                                                                                                                                                                        | 0.31                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                                                                                                                | 1575                                                                              | 1781                                                                              | 3554                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 5106                                                                                                                                                                                                                                                        | 1578                                                                                | 1781                                                                                | 4475                                                                                                                                                                                                                                                        | 674                                                                                 |
| Grp Volume(v), veh/h         | 90                                                                                | 416                                                                                                                                                                 | 150                                                                               | 168                                                                               | 797                                                                                                                                                                 | 33                                                                                | 156                                                                                 | 549                                                                                                                                                                                                                                                         | 88                                                                                  | 70                                                                                  | 425                                                                                                                                                                                                                                                         | 223                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                                                                                                                | 1575                                                                              | 1781                                                                              | 1777                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1578                                                                                | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1745                                                                                |
| Q Serve(g_s), s              | 3.0                                                                               | 6.1                                                                                                                                                                 | 4.9                                                                               | 5.5                                                                               | 12.9                                                                                                                                                                | 1.0                                                                               | 5.0                                                                                 | 4.8                                                                                                                                                                                                                                                         | 2.4                                                                                 | 2.3                                                                                 | 5.9                                                                                                                                                                                                                                                         | 6.1                                                                                 |
| Cycle Q Clear(g_c), s        | 3.0                                                                               | 6.1                                                                                                                                                                 | 4.9                                                                               | 5.5                                                                               | 12.9                                                                                                                                                                | 1.0                                                                               | 5.0                                                                                 | 4.8                                                                                                                                                                                                                                                         | 2.4                                                                                 | 2.3                                                                                 | 5.9                                                                                                                                                                                                                                                         | 6.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.39                                                                                |
| Lane Grp Cap(c), veh/h       | 115                                                                               | 822                                                                                                                                                                 | 364                                                                               | 163                                                                               | 918                                                                                                                                                                 | 407                                                                               | 148                                                                                 | 1717                                                                                                                                                                                                                                                        | 531                                                                                 | 102                                                                                 | 1056                                                                                                                                                                                                                                                        | 542                                                                                 |
| V/C Ratio(X)                 | 0.78                                                                              | 0.51                                                                                                                                                                | 0.41                                                                              | 1.03                                                                              | 0.87                                                                                                                                                                | 0.08                                                                              | 1.05                                                                                | 0.32                                                                                                                                                                                                                                                        | 0.17                                                                                | 0.68                                                                                | 0.40                                                                                                                                                                                                                                                        | 0.41                                                                                |
| Avail Cap(c_a), veh/h        | 163                                                                               | 948                                                                                                                                                                 | 420                                                                               | 163                                                                               | 948                                                                                                                                                                 | 420                                                                               | 148                                                                                 | 1717                                                                                                                                                                                                                                                        | 531                                                                                 | 148                                                                                 | 1056                                                                                                                                                                                                                                                        | 542                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 0.85                                                                              | 0.85                                                                                                                                                                | 0.85                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.6                                                                              | 20.1                                                                                                                                                                | 19.6                                                                              | 27.3                                                                              | 21.3                                                                                                                                                                | 16.9                                                                              | 27.5                                                                                | 14.8                                                                                                                                                                                                                                                        | 14.0                                                                                | 27.7                                                                                | 16.3                                                                                                                                                                                                                                                        | 16.4                                                                                |
| Incr Delay (d2), s/veh       | 14.4                                                                              | 0.5                                                                                                                                                                 | 0.7                                                                               | 72.7                                                                              | 7.4                                                                                                                                                                 | 0.1                                                                               | 88.0                                                                                | 0.5                                                                                                                                                                                                                                                         | 0.7                                                                                 | 7.8                                                                                 | 1.1                                                                                                                                                                                                                                                         | 2.3                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.6                                                                               | 2.2                                                                                                                                                                 | 1.6                                                                               | 5.3                                                                               | 5.3                                                                                                                                                                 | 0.3                                                                               | 5.5                                                                                 | 1.5                                                                                                                                                                                                                                                         | 0.8                                                                                 | 1.1                                                                                 | 2.0                                                                                                                                                                                                                                                         | 2.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 42.0                                                                              | 20.6                                                                                                                                                                | 20.3                                                                              | 99.9                                                                              | 28.6                                                                                                                                                                | 16.9                                                                              | 115.5                                                                               | 15.3                                                                                                                                                                                                                                                        | 14.7                                                                                | 35.6                                                                                | 17.4                                                                                                                                                                                                                                                        | 18.7                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                   | C                                                                                 | F                                                                                 | C                                                                                                                                                                   | B                                                                                 | F                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   | D                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 656                                                                                                                                                                 |                                                                                   |                                                                                   | 998                                                                                                                                                                 |                                                                                   |                                                                                     | 793                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 718                                                                                                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 23.4                                                                                                                                                                |                                                                                   |                                                                                   | 40.2                                                                                                                                                                |                                                                                   |                                                                                     | 34.9                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     | 19.6                                                                                                                                                                                                                                                        |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                   | D                                                                                                                                                                   |                                                                                   |                                                                                     | C                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     | B                                                                                                                                                                                                                                                           |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                   | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                   | 6                                                                                 | 7                                                                                   | 8                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.9                                                                               | 24.2                                                                                                                                                                | 10.0                                                                              | 17.9                                                                              | 9.5                                                                                                                                                                 | 22.6                                                                              | 8.4                                                                                 | 19.5                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 16.5                                                                                                                                                                | 5.5                                                                               | 16.0                                                                              | 5.0                                                                                                                                                                 | 16.5                                                                              | 5.5                                                                                 | 16.0                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.3                                                                               | 6.8                                                                                                                                                                 | 7.5                                                                               | 8.1                                                                               | 7.0                                                                                                                                                                 | 8.1                                                                               | 5.0                                                                                 | 14.9                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.4                                                                                                                                                                 | 0.0                                                                               | 1.8                                                                               | 0.0                                                                                                                                                                 | 2.3                                                                               | 0.0                                                                                 | 0.6                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                     | 30.8                                                                              |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                     | C                                                                                 |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

Lanes, Volumes, Timings  
5: Cook St. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (vph)    | 191                                                                               | 217                                                                               | 127                                                                               | 67                                                                                | 304                                                                               | 49                                                                                | 106                                                                                 | 712                                                                                 | 56                                                                                  | 43                                                                                  | 1255                                                                                | 412                                                                                 |
| Future Volume (vph)     | 191                                                                               | 217                                                                               | 127                                                                               | 67                                                                                | 304                                                                               | 49                                                                                | 106                                                                                 | 712                                                                                 | 56                                                                                  | 43                                                                                  | 1255                                                                                | 412                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                   | 135                                                                               | 135                                                                               |                                                                                   | 260                                                                               | 140                                                                                 |                                                                                     | 0                                                                                   | 210                                                                                 |                                                                                     | 220                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                   |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 210                                                                               |                                                                                   |                                                                                   | 110                                                                               |                                                                                   |                                                                                   | 110                                                                                 |                                                                                     |                                                                                     | 140                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 4512                                                                              |                                                                                   |                                                                                   | 1444                                                                              |                                                                                   |                                                                                     | 671                                                                                 |                                                                                     |                                                                                     | 1610                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                   | 19.7                                                                              |                                                                                   |                                                                                     | 8.3                                                                                 |                                                                                     |                                                                                     | 20.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Adj. Flow (vph)         | 210                                                                               | 238                                                                               | 140                                                                               | 74                                                                                | 334                                                                               | 54                                                                                | 116                                                                                 | 782                                                                                 | 62                                                                                  | 47                                                                                  | 1379                                                                                | 453                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 210                                                                               | 238                                                                               | 140                                                                               | 74                                                                                | 334                                                                               | 54                                                                                | 116                                                                                 | 844                                                                                 | 0                                                                                   | 47                                                                                  | 1379                                                                                | 453                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 5: Cook St. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
5: Cook St. & Frank Sinatra Dr.

EAPC (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 191                                                                               | 217                                                                               | 127                                                                               | 67                                                                                | 304                                                                               | 49                                                                                | 106                                                                                 | 712                                                                                 | 56                                                                                  | 43                                                                                  | 1255                                                                                | 412                                                                                 |
| Future Volume (veh/h)        | 191                                                                               | 217                                                                               | 127                                                                               | 67                                                                                | 304                                                                               | 49                                                                                | 106                                                                                 | 712                                                                                 | 56                                                                                  | 43                                                                                  | 1255                                                                                | 412                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 210                                                                               | 238                                                                               | 140                                                                               | 74                                                                                | 334                                                                               | 54                                                                                | 116                                                                                 | 782                                                                                 | 62                                                                                  | 47                                                                                  | 1379                                                                                | 453                                                                                 |
| Peak Hour Factor             | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                | 0.91                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 288                                                                               | 631                                                                               | 279                                                                               | 204                                                                               | 544                                                                               | 240                                                                               | 246                                                                                 | 1450                                                                                | 115                                                                                 | 156                                                                                 | 2088                                                                                | 646                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.18                                                                              | 0.18                                                                              | 0.06                                                                              | 0.15                                                                              | 0.15                                                                              | 0.07                                                                                | 0.43                                                                                | 0.43                                                                                | 0.05                                                                                | 0.41                                                                                | 0.41                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1572                                                                              | 3456                                                                              | 3554                                                                              | 1570                                                                              | 3456                                                                                | 3334                                                                                | 264                                                                                 | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 210                                                                               | 238                                                                               | 140                                                                               | 74                                                                                | 334                                                                               | 54                                                                                | 116                                                                                 | 417                                                                                 | 427                                                                                 | 47                                                                                  | 1379                                                                                | 453                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1572                                                                              | 1728                                                                              | 1777                                                                              | 1570                                                                              | 1728                                                                                | 1777                                                                                | 1822                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 3.6                                                                               | 3.5                                                                               | 4.8                                                                               | 1.2                                                                               | 5.3                                                                               | 1.8                                                                               | 1.9                                                                                 | 10.4                                                                                | 10.4                                                                                | 0.8                                                                                 | 13.1                                                                                | 14.3                                                                                |
| Cycle Q Clear(g_c), s        | 3.6                                                                               | 3.5                                                                               | 4.8                                                                               | 1.2                                                                               | 5.3                                                                               | 1.8                                                                               | 1.9                                                                                 | 10.4                                                                                | 10.4                                                                                | 0.8                                                                                 | 13.1                                                                                | 14.3                                                                                |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.15                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 288                                                                               | 631                                                                               | 279                                                                               | 204                                                                               | 544                                                                               | 240                                                                               | 246                                                                                 | 773                                                                                 | 792                                                                                 | 156                                                                                 | 2088                                                                                | 646                                                                                 |
| V/C Ratio(X)                 | 0.73                                                                              | 0.38                                                                              | 0.50                                                                              | 0.36                                                                              | 0.61                                                                              | 0.22                                                                              | 0.47                                                                                | 0.54                                                                                | 0.54                                                                                | 0.30                                                                                | 0.66                                                                                | 0.70                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                                 | 773                                                                                 | 792                                                                                 | 288                                                                                 | 2088                                                                                | 646                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 0.91                                                                              | 0.91                                                                              | 0.91                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.83                                                                                | 0.83                                                                                | 0.83                                                                                |
| Uniform Delay (d), s/veh     | 26.8                                                                              | 21.8                                                                              | 22.3                                                                              | 27.1                                                                              | 23.7                                                                              | 22.3                                                                              | 26.8                                                                                | 12.5                                                                                | 12.5                                                                                | 27.7                                                                                | 14.4                                                                                | 14.7                                                                                |
| Incr Delay (d2), s/veh       | 8.3                                                                               | 0.3                                                                               | 1.3                                                                               | 1.1                                                                               | 1.1                                                                               | 0.5                                                                               | 1.4                                                                                 | 2.7                                                                                 | 2.6                                                                                 | 0.9                                                                                 | 1.4                                                                                 | 5.2                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.6                                                                               | 1.3                                                                               | 1.6                                                                               | 0.5                                                                               | 2.0                                                                               | 0.6                                                                               | 0.7                                                                                 | 3.5                                                                                 | 3.6                                                                                 | 0.3                                                                                 | 4.0                                                                                 | 4.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 35.1                                                                              | 22.1                                                                              | 23.6                                                                              | 28.2                                                                              | 24.9                                                                              | 22.7                                                                              | 28.2                                                                                | 15.2                                                                                | 15.1                                                                                | 28.6                                                                                | 15.7                                                                                | 19.9                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | B                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 588                                                                               |                                                                                   |                                                                                   | 462                                                                               |                                                                                   |                                                                                   | 960                                                                                 |                                                                                     |                                                                                     | 1879                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 27.1                                                                              |                                                                                   |                                                                                   | 25.2                                                                              |                                                                                   |                                                                                   | 16.7                                                                                |                                                                                     |                                                                                     | 17.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.2                                                                               | 30.1                                                                              | 8.0                                                                               | 14.6                                                                              | 8.8                                                                               | 28.5                                                                              | 9.5                                                                                 | 13.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.8                                                                               | 12.4                                                                              | 3.2                                                                               | 6.8                                                                               | 3.9                                                                               | 16.3                                                                              | 5.6                                                                                 | 7.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 1.9                                                                               | 0.0                                                                               | 1.2                                                                               | 0.0                                                                               | 0.6                                                                               | 0.0                                                                                 | 1.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 19.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
6: Portola Av. & Retreat Circ. (N)

EAPC (2024) AM Peak Hour

|                         |  |  |                                                                                                                                                                      |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |    |  |  |   |
| Traffic Volume (vph)    | 0                                                                                 | 31                                                                                | 665                                                                                                                                                                                                                                                   | 5                                                                                 | 5                                                                                 | 774                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 31                                                                                | 665                                                                                                                                                                                                                                                   | 5                                                                                 | 5                                                                                 | 774                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 217                                                                               |                                                                                   | 282                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 254                                                                                                                                                                 |
| Travel Time (s)         | 4.9                                                                               |                                                                                   | 3.5                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 3.1                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.84                                                                              | 0.84                                                                              | 0.84                                                                                                                                                                                                                                                  | 0.84                                                                              | 0.84                                                                              | 0.84                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 37                                                                                | 792                                                                                                                                                                                                                                                   | 6                                                                                 | 6                                                                                 | 921                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 37                                                                                | 792                                                                                                                                                                                                                                                   | 6                                                                                 | 6                                                                                 | 921                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |        |          |      |        |      |      |
|--------------------------|--------|----------|------|--------|------|------|
| Int Delay, s/veh         | 0.3    |          |      |        |      |      |
| Movement                 | WBL    | WBR      | NBT  | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗        | ↗↗↗  | ↗      | ↗    | ↗↗   |
| Traffic Vol, veh/h       | 0      | 31       | 665  | 5      | 5    | 774  |
| Future Vol, veh/h        | 0      | 31       | 665  | 5      | 5    | 774  |
| Conflicting Peds, #/hr   | 5      | 5        | 0    | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free | Free   | Free | Free |
| RT Channelized           | -      | None     | -    | None   | -    | None |
| Storage Length           | -      | -        | -    | 150    | 150  | -    |
| Veh in Median Storage, # | 0      | -        | 0    | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0    | -      | -    | 0    |
| Peak Hour Factor         | 84     | 84       | 84   | 84     | 84   | 84   |
| Heavy Vehicles, %        | 2      | 2        | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 37       | 792  | 6      | 6    | 921  |
| Major/Minor              | Minor1 | Major1   |      | Major2 |      |      |
| Conflicting Flow All     | -      | 406      | 0    | 0      | 803  | 0    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -    | -      | 5.34 | -    |
| Critical Hdwy Stg 1      | -      | -        | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -    | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -    | -      | 3.12 | -    |
| Pot Cap-1 Maneuver       | 0      | 508      | -    | -      | 487  | -    |
| Stage 1                  | 0      | -        | -    | -      | -    | -    |
| Stage 2                  | 0      | -        | -    | -      | -    | -    |
| Platoon blocked, %       |        |          | -    | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 503      | -    | -      | 485  | -    |
| Mov Cap-2 Maneuver       | -      | -        | -    | -      | -    | -    |
| Stage 1                  | -      | -        | -    | -      | -    | -    |
| Stage 2                  | -      | -        | -    | -      | -    | -    |
| Approach                 | WB     | NB       |      | SB     |      |      |
| HCM Control Delay, s     | 12.7   | 0        |      | 0.1    |      |      |
| HCM LOS                  | B      |          |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |      | SBL    | SBT  |      |
| Capacity (veh/h)         | -      | 503      |      | 485    | -    |      |
| HCM Lane V/C Ratio       | -      | 0.073    |      | 0.012  | -    |      |
| HCM Control Delay (s)    | -      | 12.7     |      | 12.5   | -    |      |
| HCM Lane LOS             | -      | B        |      | B      | -    |      |
| HCM 95th %tile Q(veh)    | -      | 0.2      |      | 0      | -    |      |

Lanes, Volumes, Timings  
7: Portola Av. & Retreat Circ. (S)

EAPC (2024) AM Peak Hour

|                         |  |  |                                                                                                                                                                                                                                                        |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                                                                                                     | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |     |                                                                                   |                                                                                   |   |
| Traffic Volume (vph)    | 0                                                                                 | 3                                                                                 | 682                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 786                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 3                                                                                 | 682                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 786                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                                                                                                    | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                                                                                                         | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 243                                                                               |                                                                                   | 194                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 417                                                                                                                                                                 |
| Travel Time (s)         | 5.5                                                                               |                                                                                   | 2.4                                                                                                                                                                                                                                                                                                                                     |                                                                                   |                                                                                   | 5.2                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                                                                                                         | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                                                                                                                                                                                    | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 3                                                                                 | 793                                                                                                                                                                                                                                                                                                                                     | 1                                                                                 | 0                                                                                 | 914                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 3                                                                                 | 794                                                                                                                                                                                                                                                                                                                                     | 0                                                                                 | 0                                                                                 | 914                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
7: Portola Av. & Retreat Circ. (S)

EAPC (2024) AM Peak Hour

| Intersection             |        |          |         |        |      |      |
|--------------------------|--------|----------|---------|--------|------|------|
| Int Delay, s/veh         | 0      |          |         |        |      |      |
| Movement                 | WBL    | WBR      | NBT     | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗ ↘ ↘ ↘  | ↗ ↘ ↘ ↘ |        |      | ↗ ↘  |
| Traffic Vol, veh/h       | 0      | 3        | 682     | 1      | 0    | 786  |
| Future Vol, veh/h        | 0      | 3        | 682     | 1      | 0    | 786  |
| Conflicting Peds, #/hr   | 5      | 5        | 0       | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free    | Free   | Free | Free |
| RT Channelized           | -      | None     | -       | None   | -    | None |
| Storage Length           | -      | -        | -       | -      | -    | -    |
| Veh in Median Storage, # | 0      | -        | 0       | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0       | -      | -    | 0    |
| Peak Hour Factor         | 86     | 86       | 86      | 86     | 86   | 86   |
| Heavy Vehicles, %        | 2      | 2        | 2       | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 3        | 793     | 1      | 0    | 914  |
| Major/Minor              | Minor1 | Major1   |         | Major2 |      |      |
| Conflicting Flow All     | -      | 407      | 0       | 0      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -       | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -        | -       | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -       | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -       | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 507      | -       | -      | 0    | -    |
| Stage 1                  | 0      | -        | -       | -      | 0    | -    |
| Stage 2                  | 0      | -        | -       | -      | 0    | -    |
| Platoon blocked, %       |        |          | -       | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 502      | -       | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -        | -       | -      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Approach                 | WB     | NB       |         | SB     |      |      |
| HCM Control Delay, s     | 12.2   | 0        |         | 0      |      |      |
| HCM LOS                  | B      |          |         |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |         | SBT    |      |      |
| Capacity (veh/h)         | -      | 502      |         | -      |      |      |
| HCM Lane V/C Ratio       | -      | 0.007    |         | -      |      |      |
| HCM Control Delay (s)    | -      | 12.2     |         | -      |      |      |
| HCM Lane LOS             | -      | B        |         | -      |      |      |
| HCM 95th %tile Q(veh)    | -      | 0        |         | -      |      |      |

Lanes, Volumes, Timings  
8: Portola Av. & Willow Ridge

EAPC (2024) AM Peak Hour

|                         |  |  |                                                                                    |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                 | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |  |  |   |  |  |   |
| Traffic Volume (vph)    | 32                                                                                | 21                                                                                | 657                                                                                                                                                                 | 29                                                                                | 34                                                                                | 775                                                                                                                                                                 |
| Future Volume (vph)     | 32                                                                                | 21                                                                                | 657                                                                                                                                                                 | 29                                                                                | 34                                                                                | 775                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 0                                                                                 | 50                                                                                |                                                                                                                                                                     | 150                                                                               | 100                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                     |                                                                                   | 60                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                  |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 309                                                                               |                                                                                   | 2578                                                                                                                                                                |                                                                                   |                                                                                   | 801                                                                                                                                                                 |
| Travel Time (s)         | 7.0                                                                               |                                                                                   | 32.0                                                                                                                                                                |                                                                                   |                                                                                   | 9.9                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                | 0.86                                                                              | 0.86                                                                              | 0.86                                                                                                                                                                |
| Adj. Flow (vph)         | 37                                                                                | 24                                                                                | 764                                                                                                                                                                 | 34                                                                                | 40                                                                                | 901                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 37                                                                                | 24                                                                                | 764                                                                                                                                                                 | 34                                                                                | 40                                                                                | 901                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
8: Portola Av. & Willow Ridge

EAPC (2024) AM Peak Hour

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 32                                                                                | 21                                                                                | 657                                                                               | 29                                                                                | 34                                                                                | 775                                                                               |
| Future Vol, veh/h        | 32                                                                                | 21                                                                                | 657                                                                               | 29                                                                                | 34                                                                                | 775                                                                               |
| Conflicting Peds, #/hr   | 5                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 50                                                                                | -                                                                                 | 150                                                                               | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                | 86                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 37                                                                                | 24                                                                                | 764                                                                               | 34                                                                                | 40                                                                                | 901                                                                               |
| Major/Minor              | Minor1                                                                            | Major1                                                                            | Major2                                                                            |                                                                                   |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1305                                                                              | 392                                                                               | 0                                                                                 | 0                                                                                 | 803                                                                               | 0                                                                                 |
| Stage 1                  | 769                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 536                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| 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       | 152                                                                               | 607                                                                               | -                                                                                 | -                                                                                 | 817                                                                               | -                                                                                 |
| Stage 1                  | 418                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 551                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 143                                                                               | 601                                                                               | -                                                                                 | -                                                                                 | 813                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver       | 275                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 416                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 521                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB                                                                                | SB                                                                                |                                                                                   |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 16.6                                                                              | 0                                                                                 | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT                                                                               |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | - 275 601                                                                         | 813                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | - 0.135 0.041                                                                     | 0.049                                                                             | -                                                                                 |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | - 20.1 11.2                                                                       | 9.7                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane LOS             | -                                                                                 | - C B                                                                             | A                                                                                 | -                                                                                 |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | - 0.5 0.1                                                                         | 0.2                                                                               | -                                                                                 |                                                                                   |                                                                                   |

Lanes, Volumes, Timings  
9: Portola Av. & Country Club Dr.

EAPC (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 48                                                                                | 401                                                                               | 182                                                                               | 209                                                                               | 732                                                                               | 101                                                                               | 256                                                                                | 535                                                                                 | 227                                                                                 | 91                                                                                  | 604                                                                                 | 55                                                                                  |
| Future Volume (vph)     | 48                                                                                | 401                                                                               | 182                                                                               | 209                                                                               | 732                                                                               | 101                                                                               | 256                                                                                | 535                                                                                 | 227                                                                                 | 91                                                                                  | 604                                                                                 | 55                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 200                                                                               |                                                                                   | 105                                                                               | 180                                                                               |                                                                                   | 80                                                                                | 160                                                                                |                                                                                     | 135                                                                                 | 200                                                                                 |                                                                                     | 50                                                                                  |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 100                                                                                |                                                                                     |                                                                                     | 60                                                                                  |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1030                                                                              |                                                                                   |                                                                                   | 784                                                                               |                                                                                   |                                                                                    | 945                                                                                 |                                                                                     |                                                                                     | 2578                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   | 10.7                                                                              |                                                                                   |                                                                                    | 11.7                                                                                |                                                                                     |                                                                                     | 32.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                               | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                |
| Adj. Flow (vph)         | 56                                                                                | 472                                                                               | 214                                                                               | 246                                                                               | 861                                                                               | 119                                                                               | 301                                                                                | 629                                                                                 | 267                                                                                 | 107                                                                                 | 711                                                                                 | 65                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 56                                                                                | 472                                                                               | 214                                                                               | 246                                                                               | 861                                                                               | 119                                                                               | 301                                                                                | 629                                                                                 | 267                                                                                 | 107                                                                                 | 711                                                                                 | 65                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 12.0                                                                              | 24.0                                                                              | 24.0                                                                              | 28.0                                                                              | 40.0                                                                              | 40.0                                                                              | 32.0                                                                               | 48.7                                                                                | 48.7                                                                                | 19.3                                                                                | 36.0                                                                                | 36.0                                                                                |
| Total Split (%)         | 10.0%                                                                             | 20.0%                                                                             | 20.0%                                                                             | 23.3%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 26.7%                                                                              | 40.6%                                                                               | 40.6%                                                                               | 16.1%                                                                               | 30.0%                                                                               | 30.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 120

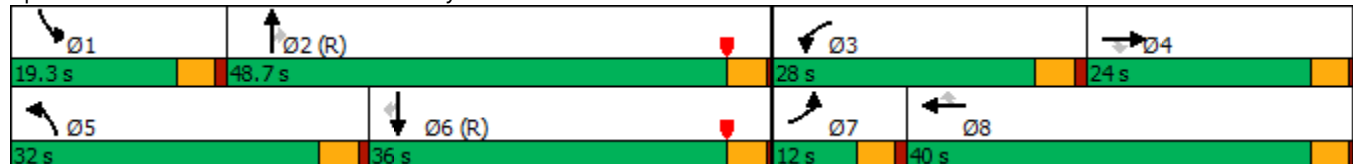
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 9: Portola Av. & Country Club Dr.



HCM 6th Signalized Intersection Summary  
9: Portola Av. & Country Club Dr.

EAPC (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 48                                                                                | 401                                                                               | 182                                                                               | 209                                                                               | 732                                                                               | 101                                                                               | 256                                                                                 | 535                                                                                 | 227                                                                                 | 91                                                                                  | 604                                                                                 | 55                                                                                  |
| Future Volume (veh/h)        | 48                                                                                | 401                                                                               | 182                                                                               | 209                                                                               | 732                                                                               | 101                                                                               | 256                                                                                 | 535                                                                                 | 227                                                                                 | 91                                                                                  | 604                                                                                 | 55                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 56                                                                                | 472                                                                               | 214                                                                               | 246                                                                               | 861                                                                               | 119                                                                               | 301                                                                                 | 629                                                                                 | 267                                                                                 | 107                                                                                 | 711                                                                                 | 65                                                                                  |
| Peak Hour Factor             | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 72                                                                                | 565                                                                               | 249                                                                               | 275                                                                               | 970                                                                               | 430                                                                               | 331                                                                                 | 1672                                                                                | 743                                                                                 | 133                                                                                 | 1276                                                                                | 567                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.16                                                                              | 0.16                                                                              | 0.15                                                                              | 0.27                                                                              | 0.27                                                                              | 0.19                                                                                | 0.47                                                                                | 0.47                                                                                | 0.07                                                                                | 0.36                                                                                | 0.36                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1570                                                                              | 1781                                                                              | 3554                                                                              | 1576                                                                              | 1781                                                                                | 3554                                                                                | 1580                                                                                | 1781                                                                                | 3554                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 56                                                                                | 472                                                                               | 214                                                                               | 246                                                                               | 861                                                                               | 119                                                                               | 301                                                                                 | 629                                                                                 | 267                                                                                 | 107                                                                                 | 711                                                                                 | 65                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1570                                                                              | 1781                                                                              | 1777                                                                              | 1576                                                                              | 1781                                                                                | 1777                                                                                | 1580                                                                                | 1781                                                                                | 1777                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 3.7                                                                               | 15.5                                                                              | 15.9                                                                              | 16.3                                                                              | 27.9                                                                              | 7.1                                                                               | 19.9                                                                                | 13.7                                                                                | 12.9                                                                                | 7.1                                                                                 | 19.2                                                                                | 3.3                                                                                 |
| Cycle Q Clear(g_c), s        | 3.7                                                                               | 15.5                                                                              | 15.9                                                                              | 16.3                                                                              | 27.9                                                                              | 7.1                                                                               | 19.9                                                                                | 13.7                                                                                | 12.9                                                                                | 7.1                                                                                 | 19.2                                                                                | 3.3                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 72                                                                                | 565                                                                               | 249                                                                               | 275                                                                               | 970                                                                               | 430                                                                               | 331                                                                                 | 1672                                                                                | 743                                                                                 | 133                                                                                 | 1276                                                                                | 567                                                                                 |
| V/C Ratio(X)                 | 0.78                                                                              | 0.84                                                                              | 0.86                                                                              | 0.89                                                                              | 0.89                                                                              | 0.28                                                                              | 0.91                                                                                | 0.38                                                                                | 0.36                                                                                | 0.81                                                                                | 0.56                                                                                | 0.11                                                                                |
| Avail Cap(c_a), veh/h        | 111                                                                               | 592                                                                               | 262                                                                               | 349                                                                               | 1066                                                                              | 473                                                                               | 408                                                                                 | 1672                                                                                | 743                                                                                 | 220                                                                                 | 1276                                                                                | 567                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 57.0                                                                              | 49.0                                                                              | 49.1                                                                              | 49.7                                                                              | 41.9                                                                              | 34.3                                                                              | 47.9                                                                                | 20.4                                                                                | 20.3                                                                                | 54.7                                                                                | 30.8                                                                                | 25.7                                                                                |
| Incr Delay (d2), s/veh       | 16.4                                                                              | 9.8                                                                               | 22.9                                                                              | 20.6                                                                              | 8.7                                                                               | 0.3                                                                               | 21.2                                                                                | 0.6                                                                                 | 1.4                                                                                 | 10.9                                                                                | 1.8                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 2.0                                                                               | 7.4                                                                               | 7.6                                                                               | 8.5                                                                               | 12.8                                                                              | 2.7                                                                               | 10.3                                                                                | 5.4                                                                                 | 4.7                                                                                 | 3.5                                                                                 | 8.0                                                                                 | 1.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 73.5                                                                              | 58.7                                                                              | 72.1                                                                              | 70.3                                                                              | 50.6                                                                              | 34.6                                                                              | 69.1                                                                                | 21.1                                                                                | 21.6                                                                                | 65.6                                                                                | 32.6                                                                                | 26.1                                                                                |
| LnGrp LOS                    | E                                                                                 | E                                                                                 | E                                                                                 | E                                                                                 | D                                                                                 | C                                                                                 | E                                                                                   | C                                                                                   | C                                                                                   | E                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 742                                                                               |                                                                                   |                                                                                   | 1226                                                                              |                                                                                   |                                                                                   | 1197                                                                                |                                                                                     |                                                                                     | 883                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 63.7                                                                              |                                                                                   |                                                                                   | 53.0                                                                              |                                                                                   |                                                                                   | 33.3                                                                                |                                                                                     |                                                                                     | 36.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 13.4                                                                              | 60.4                                                                              | 23.1                                                                              | 23.1                                                                              | 26.8                                                                              | 47.1                                                                              | 9.4                                                                                 | 36.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 14.8                                                                              | 44.7                                                                              | 23.5                                                                              | 20.0                                                                              | 27.5                                                                              | 32.0                                                                              | 7.5                                                                                 | 36.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 9.1                                                                               | 15.7                                                                              | 18.3                                                                              | 17.9                                                                              | 21.9                                                                              | 21.2                                                                              | 5.7                                                                                 | 29.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.1                                                                               | 4.8                                                                               | 0.3                                                                               | 0.8                                                                               | 0.4                                                                               | 3.3                                                                               | 0.0                                                                                 | 2.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 45.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
10: Portola Av. & South Access

EAPC (2024) AM Peak Hour

|                         |  |                                                                                   |      |                                                                                   |                                                                                   |      |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations     |                                                                                   |  |      |  |  |      |
| Traffic Volume (vph)    | 0                                                                                 | 12                                                                                | 0    | 683                                                                               | 786                                                                               | 0    |
| Future Volume (vph)     | 0                                                                                 | 12                                                                                | 0    | 683                                                                               | 786                                                                               | 0    |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900 | 1900                                                                              | 1900                                                                              | 1900 |
| Link Speed (mph)        | 30                                                                                |                                                                                   |      | 55                                                                                | 55                                                                                |      |
| Link Distance (ft)      | 244                                                                               |                                                                                   |      | 468                                                                               | 194                                                                               |      |
| Travel Time (s)         | 5.5                                                                               |                                                                                   |      | 5.8                                                                               | 2.4                                                                               |      |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Adj. Flow (vph)         | 0                                                                                 | 13                                                                                | 0    | 742                                                                               | 854                                                                               | 0    |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |
| Lane Group Flow (vph)   | 0                                                                                 | 13                                                                                | 0    | 742                                                                               | 854                                                                               | 0    |
| Sign Control            | Stop                                                                              |                                                                                   |      | Free                                                                              | Free                                                                              |      |
| Intersection Summary    |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |
| Area Type:              | Other                                                                             |                                                                                   |      |                                                                                   |                                                                                   |      |
| Control Type:           | Unsignalized                                                                      |                                                                                   |      |                                                                                   |                                                                                   |      |

HCM 6th TWSC  
10: Portola Av. & South Access

EAPC (2024) AM Peak Hour

| Intersection             |           |        |      |        |      |      |
|--------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh         | 0.1       |        |      |        |      |      |
| Movement                 | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations      |           | ↗      |      | ↑↑↑    | ↑↑   |      |
| Traffic Vol, veh/h       | 0         | 12     | 0    | 683    | 786  | 0    |
| Future Vol, veh/h        | 0         | 12     | 0    | 683    | 786  | 0    |
| Conflicting Peds, #/hr   | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control             | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized           | -         | None   | -    | None   | -    | None |
| Storage Length           | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, # | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                 | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor         | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0         | 13     | 0    | 742    | 854  | 0    |
|                          |           |        |      |        |      |      |
| Major/Minor              | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All     | -         | 427    | -    | 0      | -    | 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         | 576    | 0    | -      | -    | 0    |
| Stage 1                  | 0         | -      | 0    | -      | -    | 0    |
| Stage 2                  | 0         | -      | 0    | -      | -    | 0    |
| Platoon blocked, %       |           |        |      | -      | -    |      |
| Mov Cap-1 Maneuver       | -         | 576    | -    | -      | -    | -    |
| Mov Cap-2 Maneuver       | -         | -      | -    | -      | -    | -    |
| Stage 1                  | -         | -      | -    | -      | -    | -    |
| Stage 2                  | -         | -      | -    | -      | -    | -    |
|                          |           |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Approach                 | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s     | 11.4      | 0      |      | 0      |      |      |
| HCM LOS                  | B         |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT EBLn1 |        | SBT  |        |      |      |
| Capacity (veh/h)         | - 576     |        | -    |        |      |      |
| HCM Lane V/C Ratio       | - 0.023   |        | -    |        |      |      |
| HCM Control Delay (s)    | - 11.4    |        | -    |        |      |      |
| HCM Lane LOS             | - B       |        | -    |        |      |      |
| HCM 95th %tile Q(veh)    | - 0.1     |        | -    |        |      |      |

Lanes, Volumes, Timings  
11: Cook St. & University Park Dr./Berger Dr.

EAPC (2024) AM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 155                                                                               | 18                                                                                | 71                                                                                | 3                                                                                 | 7                                                                                 | 10                                                                                | 28                                                                                  | 913                                                                                 | 10                                                                                  | 49                                                                                  | 1636                                                                                | 58                                                                                  |
| Future Volume (vph)     | 155                                                                               | 18                                                                                | 71                                                                                | 3                                                                                 | 7                                                                                 | 10                                                                                | 28                                                                                  | 913                                                                                 | 10                                                                                  | 49                                                                                  | 1636                                                                                | 58                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 180                                                                               |                                                                                   | 180                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 140                                                                                 |                                                                                     | 140                                                                                 | 225                                                                                 |                                                                                     | 295                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 160                                                                                 |                                                                                     |                                                                                     | 165                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 460                                                                               |                                                                                   |                                                                                     | 1610                                                                                |                                                                                     |                                                                                     | 602                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 10.2                                                                              |                                                                                   |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                     | 20.0                                                                                |                                                                                     |                                                                                     | 7.5                                                                                 |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 172                                                                               | 20                                                                                | 79                                                                                | 3                                                                                 | 8                                                                                 | 11                                                                                | 31                                                                                  | 1014                                                                                | 11                                                                                  | 54                                                                                  | 1818                                                                                | 64                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 172                                                                               | 20                                                                                | 79                                                                                | 3                                                                                 | 8                                                                                 | 11                                                                                | 31                                                                                  | 1014                                                                                | 11                                                                                  | 54                                                                                  | 1818                                                                                | 64                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 11: Cook St. & University Park Dr./Berger Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
11: Cook St. & University Park Dr./Berger Dr.

EAPC (2024) AM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 155                                                                               | 18                                                                                | 71                                                                                | 3                                                                                 | 7                                                                                 | 10                                                                                | 28                                                                                  | 913                                                                                 | 10                                                                                  | 49                                                                                  | 1636                                                                                | 58                                                                                  |
| Future Volume (veh/h)        | 155                                                                               | 18                                                                                | 71                                                                                | 3                                                                                 | 7                                                                                 | 10                                                                                | 28                                                                                  | 913                                                                                 | 10                                                                                  | 49                                                                                  | 1636                                                                                | 58                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 172                                                                               | 20                                                                                | 79                                                                                | 3                                                                                 | 8                                                                                 | 0                                                                                 | 31                                                                                  | 1014                                                                                | 0                                                                                   | 54                                                                                  | 1818                                                                                | 64                                                                                  |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 148                                                                               | 285                                                                               | 239                                                                               | 7                                                                                 | 137                                                                               |                                                                                   | 60                                                                                  | 2608                                                                                |                                                                                     | 171                                                                                 | 2689                                                                                | 831                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.15                                                                              | 0.15                                                                              | 0.00                                                                              | 0.07                                                                              | 0.00                                                                              | 0.07                                                                                | 1.00                                                                                | 0.00                                                                                | 0.05                                                                                | 0.53                                                                                | 0.53                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 1870                                                                              | 1569                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 5106                                                                                | 1585                                                                                | 3456                                                                                | 5106                                                                                | 1578                                                                                |
| Grp Volume(v), veh/h         | 172                                                                               | 20                                                                                | 79                                                                                | 3                                                                                 | 8                                                                                 | 0                                                                                 | 31                                                                                  | 1014                                                                                | 0                                                                                   | 54                                                                                  | 1818                                                                                | 64                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1870                                                                              | 1569                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 1702                                                                                | 1585                                                                                | 1728                                                                                | 1702                                                                                | 1578                                                                                |
| Q Serve(g_s), s              | 5.0                                                                               | 0.5                                                                               | 2.7                                                                               | 0.1                                                                               | 0.2                                                                               | 0.0                                                                               | 1.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 15.7                                                                                | 1.2                                                                                 |
| Cycle Q Clear(g_c), s        | 5.0                                                                               | 0.5                                                                               | 2.7                                                                               | 0.1                                                                               | 0.2                                                                               | 0.0                                                                               | 1.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 15.7                                                                                | 1.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 148                                                                               | 285                                                                               | 239                                                                               | 7                                                                                 | 137                                                                               |                                                                                   | 60                                                                                  | 2608                                                                                |                                                                                     | 171                                                                                 | 2689                                                                                | 831                                                                                 |
| V/C Ratio(X)                 | 1.16                                                                              | 0.07                                                                              | 0.33                                                                              | 0.41                                                                              | 0.06                                                                              |                                                                                   | 0.52                                                                                | 0.39                                                                                |                                                                                     | 0.32                                                                                | 0.68                                                                                | 0.08                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 499                                                                               | 419                                                                               | 148                                                                               | 499                                                                               |                                                                                   | 148                                                                                 | 2608                                                                                |                                                                                     | 288                                                                                 | 2689                                                                                | 831                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.78                                                                                | 0.78                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.5                                                                              | 21.8                                                                              | 22.7                                                                              | 29.8                                                                              | 25.9                                                                              | 0.0                                                                               | 27.5                                                                                | 0.0                                                                                 | 0.0                                                                                 | 27.5                                                                                | 10.4                                                                                | 7.0                                                                                 |
| Incr Delay (d2), s/veh       | 122.9                                                                             | 0.1                                                                               | 0.8                                                                               | 33.7                                                                              | 0.2                                                                               | 0.0                                                                               | 5.3                                                                                 | 0.3                                                                                 | 0.0                                                                                 | 1.0                                                                                 | 1.4                                                                                 | 0.2                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 7.1                                                                               | 0.2                                                                               | 1.0                                                                               | 0.1                                                                               | 0.1                                                                               | 0.0                                                                               | 0.5                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 4.0                                                                                 | 0.4                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 150.4                                                                             | 21.9                                                                              | 23.5                                                                              | 63.5                                                                              | 26.1                                                                              | 0.0                                                                               | 32.8                                                                                | 0.3                                                                                 | 0.0                                                                                 | 28.6                                                                                | 11.8                                                                                | 7.2                                                                                 |
| LnGrp LOS                    | F                                                                                 | C                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 |                                                                                   | C                                                                                   | A                                                                                   |                                                                                     | C                                                                                   | B                                                                                   | A                                                                                   |
| Approach Vol, veh/h          | 271                                                                               |                                                                                   |                                                                                   |                                                                                   | 11                                                                                |                                                                                   | A                                                                                   | 1045                                                                                |                                                                                     | A                                                                                   | 1936                                                                                |                                                                                     |
| Approach Delay, s/veh        | 103.9                                                                             |                                                                                   |                                                                                   |                                                                                   | 36.3                                                                              |                                                                                   |                                                                                     | 1.3                                                                                 |                                                                                     |                                                                                     | 12.1                                                                                |                                                                                     |
| Approach LOS                 | F                                                                                 |                                                                                   |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.5                                                                               | 34.6                                                                              | 4.7                                                                               | 13.1                                                                              | 6.5                                                                               | 35.6                                                                              | 9.5                                                                                 | 8.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.9                                                                               | 2.0                                                                               | 2.1                                                                               | 4.7                                                                               | 3.0                                                                               | 17.7                                                                              | 7.0                                                                                 | 2.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 5.4                                                                               | 0.0                                                                               | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 16.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
1: Monterey Av. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                         |                                                                                    |                                                                                    |  |                                                                                    |                                                                                    |  |                                                                                      |                                                                                                                                                                          |  |                                                                                      |                                                                                                                                                                          |  |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                                                                                                 | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                                                                                                                 | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                                                                                                     | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                                                                                                     | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations     |   |   |  |   |   |  |   |    |                                                                                     |   |    |  |
| Traffic Volume (vph)    | 148                                                                                                                                                                 | 715                                                                                                                                                                 | 149                                                                               | 160                                                                                                                                                                 | 445                                                                                                                                                                 | 137                                                                               | 148                                                                                                                                                                     | 1468                                                                                                                                                                                                                                                        | 153                                                                                 | 165                                                                                                                                                                     | 1220                                                                                                                                                                                                                                                        | 78                                                                                  |
| Future Volume (vph)     | 148                                                                                                                                                                 | 715                                                                                                                                                                 | 149                                                                               | 160                                                                                                                                                                 | 445                                                                                                                                                                 | 137                                                                               | 148                                                                                                                                                                     | 1468                                                                                                                                                                                                                                                        | 153                                                                                 | 165                                                                                                                                                                     | 1220                                                                                                                                                                                                                                                        | 78                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                                                                                                                    | 1900                                                                                                                                                                                                                                                        | 1900                                                                                | 1900                                                                                                                                                                    | 1900                                                                                                                                                                                                                                                        | 1900                                                                                |
| Storage Length (ft)     | 160                                                                                                                                                                 |                                                                                                                                                                     | 150                                                                               | 140                                                                                                                                                                 |                                                                                                                                                                     | 140                                                                               | 250                                                                                                                                                                     |                                                                                                                                                                                                                                                             | 150                                                                                 | 200                                                                                                                                                                     |                                                                                                                                                                                                                                                             | 175                                                                                 |
| Storage Lanes           | 2                                                                                                                                                                   |                                                                                                                                                                     | 1                                                                                 | 2                                                                                                                                                                   |                                                                                                                                                                     | 1                                                                                 | 2                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 0                                                                                   | 2                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 1                                                                                   |
| Taper Length (ft)       | 100                                                                                                                                                                 |                                                                                                                                                                     |                                                                                   | 120                                                                                                                                                                 |                                                                                                                                                                     |                                                                                   | 120                                                                                                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     | 120                                                                                                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Right Turn on Red       |                                                                                                                                                                     |                                                                                                                                                                     | Yes                                                                               |                                                                                                                                                                     |                                                                                                                                                                     | Yes                                                                               |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | Yes                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | Yes                                                                                 |
| Link Speed (mph)        |                                                                                                                                                                     | 50                                                                                                                                                                  |                                                                                   |                                                                                                                                                                     | 50                                                                                                                                                                  |                                                                                   |                                                                                                                                                                         | 55                                                                                                                                                                                                                                                          |                                                                                     |                                                                                                                                                                         | 55                                                                                                                                                                                                                                                          |                                                                                     |
| Link Distance (ft)      |                                                                                                                                                                     | 1182                                                                                                                                                                |                                                                                   |                                                                                                                                                                     | 5371                                                                                                                                                                |                                                                                   |                                                                                                                                                                         | 1281                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                         | 1753                                                                                                                                                                                                                                                        |                                                                                     |
| Travel Time (s)         |                                                                                                                                                                     | 16.1                                                                                                                                                                |                                                                                   |                                                                                                                                                                     | 73.2                                                                                                                                                                |                                                                                   |                                                                                                                                                                         | 15.9                                                                                                                                                                                                                                                        |                                                                                     |                                                                                                                                                                         | 21.7                                                                                                                                                                                                                                                        |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                                                                                                   |                                                                                                                                                                     | 5                                                                                 | 5                                                                                                                                                                   |                                                                                                                                                                     | 5                                                                                 | 5                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 5                                                                                   | 5                                                                                                                                                                       |                                                                                                                                                                                                                                                             | 5                                                                                   |
| Peak Hour Factor        | 0.95                                                                                                                                                                | 0.95                                                                                                                                                                | 0.95                                                                              | 0.95                                                                                                                                                                | 0.95                                                                                                                                                                | 0.95                                                                              | 0.95                                                                                                                                                                    | 0.95                                                                                                                                                                                                                                                        | 0.95                                                                                | 0.95                                                                                                                                                                    | 0.95                                                                                                                                                                                                                                                        | 0.95                                                                                |
| Adj. Flow (vph)         | 156                                                                                                                                                                 | 753                                                                                                                                                                 | 157                                                                               | 168                                                                                                                                                                 | 468                                                                                                                                                                 | 144                                                                               | 156                                                                                                                                                                     | 1545                                                                                                                                                                                                                                                        | 161                                                                                 | 174                                                                                                                                                                     | 1284                                                                                                                                                                                                                                                        | 82                                                                                  |
| Shared Lane Traffic (%) |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |
| Lane Group Flow (vph)   | 156                                                                                                                                                                 | 753                                                                                                                                                                 | 157                                                                               | 168                                                                                                                                                                 | 468                                                                                                                                                                 | 144                                                                               | 156                                                                                                                                                                     | 1706                                                                                                                                                                                                                                                        | 0                                                                                   | 174                                                                                                                                                                     | 1284                                                                                                                                                                                                                                                        | 82                                                                                  |
| Turn Type               | Prot                                                                                                                                                                | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                                                                                                | NA                                                                                                                                                                  | Perm                                                                              | Prot                                                                                                                                                                    | NA                                                                                                                                                                                                                                                          |                                                                                     | Prot                                                                                                                                                                    | NA                                                                                                                                                                                                                                                          | Perm                                                                                |
| Protected Phases        | 7                                                                                                                                                                   | 4                                                                                                                                                                   |                                                                                   | 3                                                                                                                                                                   | 8                                                                                                                                                                   |                                                                                   | 5                                                                                                                                                                       | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                                                                                                       | 6                                                                                                                                                                                                                                                           |                                                                                     |
| Permitted Phases        |                                                                                                                                                                     |                                                                                                                                                                     | 4                                                                                 |                                                                                                                                                                     |                                                                                                                                                                     | 8                                                                                 |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             | 6                                                                                   |
| Detector Phase          | 7                                                                                                                                                                   | 4                                                                                                                                                                   | 4                                                                                 | 3                                                                                                                                                                   | 8                                                                                                                                                                   | 8                                                                                 | 5                                                                                                                                                                       | 2                                                                                                                                                                                                                                                           |                                                                                     | 1                                                                                                                                                                       | 6                                                                                                                                                                                                                                                           | 6                                                                                   |
| Switch Phase            |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                     |                                                                                                                                                                     |                                                                                   |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                                                                                                         |                                                                                                                                                                                                                                                             |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 5.0                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         |                                                                                     | 5.0                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                     | 20.0                                                                                                                                                                                                                                                        |                                                                                     | 9.5                                                                                                                                                                     | 20.0                                                                                                                                                                                                                                                        | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                 | 20.0                                                                                                                                                                | 20.0                                                                              | 9.5                                                                                                                                                                     | 21.0                                                                                                                                                                                                                                                        |                                                                                     | 9.5                                                                                                                                                                     | 21.0                                                                                                                                                                                                                                                        | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                                                                                                               | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                                                                                                               | 33.3%                                                                                                                                                               | 33.3%                                                                             | 15.8%                                                                                                                                                                   | 35.0%                                                                                                                                                                                                                                                       |                                                                                     | 15.8%                                                                                                                                                                   | 35.0%                                                                                                                                                                                                                                                       | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                                                                                                                 | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                                                                                                 | 3.5                                                                                                                                                                 | 3.5                                                                               | 3.5                                                                                                                                                                     | 3.5                                                                                                                                                                                                                                                         |                                                                                     | 3.5                                                                                                                                                                     | 3.5                                                                                                                                                                                                                                                         | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                                                                                                                 | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                                                                                                 | 0.5                                                                                                                                                                 | 0.5                                                                               | 1.0                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                         |                                                                                     | 1.0                                                                                                                                                                     | 0.5                                                                                                                                                                                                                                                         | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                                                                                                                 | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                                                                                                         |                                                                                     | 0.0                                                                                                                                                                     | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         |                                                                                     | 4.5                                                                                                                                                                     | 4.0                                                                                                                                                                                                                                                         | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                                                                                                                | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                                                                                                | Lag                                                                                                                                                                 | Lag                                                                               | Lead                                                                                                                                                                    | Lag                                                                                                                                                                                                                                                         |                                                                                     | Lead                                                                                                                                                                    | Lag                                                                                                                                                                                                                                                         | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                                                                                                                 | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                                                                                                 | Yes                                                                                                                                                                 | Yes                                                                               | Yes                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                         |                                                                                     | Yes                                                                                                                                                                     | Yes                                                                                                                                                                                                                                                         | Yes                                                                                 |
| Recall Mode             | None                                                                                                                                                                | None                                                                                                                                                                | None                                                                              | None                                                                                                                                                                | None                                                                                                                                                                | None                                                                              | None                                                                                                                                                                    | C-Max                                                                                                                                                                                                                                                       |                                                                                     | None                                                                                                                                                                    | C-Max                                                                                                                                                                                                                                                       | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 1: Monterey Av. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 1: Monterey Av. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |   |  |  |  |  |  |
| Traffic Volume (veh/h)       | 148                                                                               | 715                                                                               | 149                                                                               | 160                                                                               | 445                                                                               | 137                                                                               | 148                                                                                 | 1468                                                                                | 153                                                                                 | 165                                                                                 | 1220                                                                                | 78                                                                                  |
| Future Volume (veh/h)        | 148                                                                               | 715                                                                               | 149                                                                               | 160                                                                               | 445                                                                               | 137                                                                               | 148                                                                                 | 1468                                                                                | 153                                                                                 | 165                                                                                 | 1220                                                                                | 78                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 156                                                                               | 753                                                                               | 157                                                                               | 168                                                                               | 468                                                                               | 144                                                                               | 156                                                                                 | 1545                                                                                | 161                                                                                 | 174                                                                                 | 1284                                                                                | 82                                                                                  |
| Peak Hour Factor             | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                | 0.95                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 267                                                                               | 897                                                                               | 397                                                                               | 270                                                                               | 901                                                                               | 399                                                                               | 267                                                                                 | 1443                                                                                | 150                                                                                 | 272                                                                                 | 1578                                                                                | 487                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.25                                                                              | 0.25                                                                              | 0.08                                                                              | 0.25                                                                              | 0.25                                                                              | 0.08                                                                                | 0.31                                                                                | 0.31                                                                                | 0.08                                                                                | 0.31                                                                                | 0.31                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1576                                                                              | 3456                                                                              | 3554                                                                              | 1576                                                                              | 3456                                                                                | 4695                                                                                | 489                                                                                 | 3456                                                                                | 5106                                                                                | 1577                                                                                |
| Grp Volume(v), veh/h         | 156                                                                               | 753                                                                               | 157                                                                               | 168                                                                               | 468                                                                               | 144                                                                               | 156                                                                                 | 1120                                                                                | 586                                                                                 | 174                                                                                 | 1284                                                                                | 82                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1576                                                                              | 1728                                                                              | 1777                                                                              | 1576                                                                              | 1728                                                                                | 1702                                                                                | 1780                                                                                | 1728                                                                                | 1702                                                                                | 1577                                                                                |
| Q Serve(g_s), s              | 2.6                                                                               | 12.1                                                                              | 5.0                                                                               | 2.8                                                                               | 6.8                                                                               | 4.5                                                                               | 2.6                                                                                 | 18.4                                                                                | 18.4                                                                                | 2.9                                                                                 | 13.9                                                                                | 2.3                                                                                 |
| Cycle Q Clear(g_c), s        | 2.6                                                                               | 12.1                                                                              | 5.0                                                                               | 2.8                                                                               | 6.8                                                                               | 4.5                                                                               | 2.6                                                                                 | 18.4                                                                                | 18.4                                                                                | 2.9                                                                                 | 13.9                                                                                | 2.3                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.27                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 267                                                                               | 897                                                                               | 397                                                                               | 270                                                                               | 901                                                                               | 399                                                                               | 267                                                                                 | 1046                                                                                | 547                                                                                 | 272                                                                                 | 1578                                                                                | 487                                                                                 |
| V/C Ratio(X)                 | 0.59                                                                              | 0.84                                                                              | 0.39                                                                              | 0.62                                                                              | 0.52                                                                              | 0.36                                                                              | 0.59                                                                                | 1.07                                                                                | 1.07                                                                                | 0.64                                                                                | 0.81                                                                                | 0.17                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                               | 948                                                                               | 420                                                                               | 288                                                                                 | 1046                                                                                | 547                                                                                 | 288                                                                                 | 1578                                                                                | 487                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 26.8                                                                              | 21.3                                                                              | 18.6                                                                              | 26.8                                                                              | 19.3                                                                              | 18.4                                                                              | 26.8                                                                                | 20.8                                                                                | 20.8                                                                                | 26.8                                                                                | 19.1                                                                                | 15.1                                                                                |
| Incr Delay (d2), s/veh       | 2.6                                                                               | 6.5                                                                               | 0.6                                                                               | 3.7                                                                               | 0.5                                                                               | 0.5                                                                               | 2.6                                                                                 | 48.6                                                                                | 59.1                                                                                | 4.3                                                                                 | 4.7                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.0                                                                               | 5.0                                                                               | 1.6                                                                               | 1.2                                                                               | 2.4                                                                               | 1.4                                                                               | 1.0                                                                                 | 12.7                                                                                | 14.9                                                                                | 1.2                                                                                 | 5.0                                                                                 | 0.8                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 29.4                                                                              | 27.8                                                                              | 19.3                                                                              | 30.5                                                                              | 19.7                                                                              | 19.0                                                                              | 29.4                                                                                | 69.4                                                                                | 79.9                                                                                | 31.1                                                                                | 23.9                                                                                | 15.9                                                                                |
| LnGrp LOS                    | C                                                                                 | C                                                                                 | B                                                                                 | C                                                                                 | B                                                                                 | B                                                                                 | C                                                                                   | F                                                                                   | F                                                                                   | C                                                                                   | C                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 1066                                                                              |                                                                                   |                                                                                   | 780                                                                               |                                                                                   |                                                                                   | 1862                                                                                |                                                                                     |                                                                                     | 1540                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 26.8                                                                              |                                                                                   |                                                                                   | 21.9                                                                              |                                                                                   |                                                                                   | 69.4                                                                                |                                                                                     |                                                                                     | 24.3                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | E                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 9.2                                                                               | 22.4                                                                              | 9.2                                                                               | 19.1                                                                              | 9.1                                                                               | 22.5                                                                              | 9.1                                                                                 | 19.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 4.9                                                                               | 20.4                                                                              | 4.8                                                                               | 14.1                                                                              | 4.6                                                                               | 15.9                                                                              | 4.6                                                                                 | 8.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 1.0                                                                               | 0.0                                                                               | 0.8                                                                               | 0.0                                                                                 | 1.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 40.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
2: Portola Av. & Central Access

EAPC (2024) PM Peak Hour

|                         |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |  |  |  |  |
| Traffic Volume (vph)    | 0                                                                                 | 23                                                                                | 52                                                                                | 902                                                                               | 653                                                                               | 77                                                                                |
| Future Volume (vph)     | 0                                                                                 | 23                                                                                | 52                                                                                | 902                                                                               | 653                                                                               | 77                                                                                |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              |
| Storage Length (ft)     | 0                                                                                 | 0                                                                                 | 220                                                                               |                                                                                   |                                                                                   | 90                                                                                |
| Storage Lanes           | 0                                                                                 | 1                                                                                 | 1                                                                                 |                                                                                   |                                                                                   | 1                                                                                 |
| Taper Length (ft)       | 90                                                                                |                                                                                   | 60                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                | 55                                                                                |                                                                                   |
| Link Distance (ft)      | 265                                                                               |                                                                                   |                                                                                   | 417                                                                               | 282                                                                               |                                                                                   |
| Travel Time (s)         | 6.0                                                                               |                                                                                   |                                                                                   | 5.2                                                                               | 3.5                                                                               |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 25                                                                                | 57                                                                                | 980                                                                               | 710                                                                               | 84                                                                                |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 25                                                                                | 57                                                                                | 980                                                                               | 710                                                                               | 84                                                                                |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                              | Free                                                                              |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

HCM 6th TWSC  
2: Portola Av. & Central Access

EAPC (2024) PM Peak Hour

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.4    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      |        | ↗      | ↘     | ↑↑↑    | ↑↑   | ↗    |
| Traffic Vol, veh/h       | 0      | 23     | 52    | 902    | 653  | 77   |
| Future Vol, veh/h        | 0      | 23     | 52    | 902    | 653  | 77   |
| 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      | 220   | -      | -    | 90   |
| Veh in Median Storage, # | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                 | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92    | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 25     | 57    | 980    | 710  | 84   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | -      | 355    | 794   | 0      | -    | 0    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Critical Hdwy            | -      | 6.94   | 4.14  | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -      | -     | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.32   | 2.22  | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 641    | 823   | -      | -    | -    |
| Stage 1                  | 0      | -      | -     | -      | -    | -    |
| Stage 2                  | 0      | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | -      | 641    | 823   | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -      | -     | -      | -    | -    |
| Stage 1                  | -      | -      | -     | -      | -    | -    |
| Stage 2                  | -      | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 10.8   | 0.5    |       | 0      |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 823    | -      | 641   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.069  | -      | 0.039 | -      | -    |      |
| HCM Control Delay (s)    | 9.7    | -      | 10.8  | -      | -    |      |
| HCM Lane LOS             | A      | -      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0.2    | -      | 0.1   | -      | -    |      |

Lanes, Volumes, Timings  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                         |  |                                                                                    |  |  |                                                                                    |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |   |                                                                                   |                                                                                   |   |  |                                                                                    |                                                                                     |  |                                                                                     |                                                                                     |  |
| Traffic Volume (vph)    | 42                                                                                | 914                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 665                                                                                                                                                                 | 43                                                                                | 0                                                                                  | 0                                                                                   | 46                                                                                  | 0                                                                                   | 0                                                                                   | 47                                                                                  |
| Future Volume (vph)     | 42                                                                                | 914                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 665                                                                                                                                                                 | 43                                                                                | 0                                                                                  | 0                                                                                   | 46                                                                                  | 0                                                                                   | 0                                                                                   | 47                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                                                                                                     | 150                                                                               | 150                                                                               |                                                                                                                                                                     | 50                                                                                | 0                                                                                  |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 150                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                                                                                                     | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     | 1                                                                                 | 0                                                                                  |                                                                                     | 1                                                                                   | 0                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                                                                                                     |                                                                                   | 90                                                                                |                                                                                                                                                                     |                                                                                   | 90                                                                                 |                                                                                     |                                                                                     | 90                                                                                  |                                                                                     |                                                                                     |
| Link Speed (mph)        |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                   | 50                                                                                                                                                                  |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 5371                                                                                                                                                                |                                                                                   |                                                                                   | 693                                                                                                                                                                 |                                                                                   |                                                                                    | 244                                                                                 |                                                                                     |                                                                                     | 810                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 73.2                                                                                                                                                                |                                                                                   |                                                                                   | 9.5                                                                                                                                                                 |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     | 18.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     | 5                                                                                 |                                                                                    |                                                                                     |                                                                                     | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                                                                                                                | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Adj. Flow (vph)         | 46                                                                                | 993                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 723                                                                                                                                                                 | 47                                                                                | 0                                                                                  | 0                                                                                   | 50                                                                                  | 0                                                                                   | 0                                                                                   | 51                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 46                                                                                | 993                                                                                                                                                                 | 0                                                                                 | 0                                                                                 | 723                                                                                                                                                                 | 47                                                                                | 0                                                                                  | 0                                                                                   | 50                                                                                  | 0                                                                                   | 0                                                                                   | 51                                                                                  |
| Sign Control            |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Intersection Summary    |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Area Type:              | Other                                                                             |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
3: North Access/Shepherd Ln. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.9                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT  | NBR                                                                               | SBL  | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |      |  |      |      |  |
| Traffic Vol, veh/h       | 42                                                                                | 914                                                                               | 0    | 0    | 665                                                                               | 43                                                                                | 0    | 0    | 46                                                                                | 0    | 0    | 47                                                                                  |
| Future Vol, veh/h        | 42                                                                                | 914                                                                               | 0    | 0    | 665                                                                               | 43                                                                                | 0    | 0    | 46                                                                                | 0    | 0    | 47                                                                                  |
| Conflicting Peds, #/hr   | 5                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 5                                                                                 | 0    | 0    | 0                                                                                 | 5    | 0    | 5                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -    | None                                                                              | -    | -    | None                                                                                |
| Storage Length           | 140                                                                               | -                                                                                 | -    | -    | -                                                                                 | 50                                                                                | -    | -    | 0                                                                                 | -    | -    | -                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                 | -    | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0    | -                                                                                 | -    | 0    | -                                                                                   |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   |
| Mvmt Flow                | 46                                                                                | 993                                                                               | 0    | 0    | 723                                                                               | 47                                                                                | 0    | 0    | 50                                                                                | 0    | 0    | 51                                                                                  |

| Major/Minor          | Major1 |   | Major2 |   | Minor1 |   | Minor2 |   |
|----------------------|--------|---|--------|---|--------|---|--------|---|
| Conflicting Flow All | 775    | 0 | -      | - | -      | 0 | -      | - |
| Stage 1              | -      | - | -      | - | -      | - | -      | - |
| Stage 2              | -      | - | -      | - | -      | - | -      | - |
| Critical Hdwy        | 4.14   | - | -      | - | -      | - | 6.94   | - |
| Critical Hdwy Stg 1  | -      | - | -      | - | -      | - | -      | - |
| Critical Hdwy Stg 2  | -      | - | -      | - | -      | - | -      | - |
| Follow-up Hdwy       | 2.22   | - | -      | - | -      | - | 3.32   | - |
| Pot Cap-1 Maneuver   | 837    | - | 0      | 0 | -      | - | 0      | 0 |
| Stage 1              | -      | - | 0      | 0 | -      | - | 0      | 0 |
| Stage 2              | -      | - | 0      | 0 | -      | - | 0      | 0 |
| Platoon blocked, %   | -      | - | -      | - | -      | - | -      | - |
| Mov Cap-1 Maneuver   | 833    | - | -      | - | -      | - | 519    | - |
| Mov Cap-2 Maneuver   | -      | - | -      | - | -      | - | -      | - |
| Stage 1              | -      | - | -      | - | -      | - | -      | - |
| Stage 2              | -      | - | -      | - | -      | - | -      | - |

| Approach             | EB  | WB | NB   | SB   |
|----------------------|-----|----|------|------|
| HCM Control Delay, s | 0.4 | 0  | 12.7 | 11.3 |
| HCM LOS              |     |    | B    | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 519   | 833   | -   | -   | -   | 619   |
| HCM Lane V/C Ratio    | 0.096 | 0.055 | -   | -   | -   | 0.083 |
| HCM Control Delay (s) | 12.7  | 9.6   | -   | -   | -   | 11.3  |
| HCM Lane LOS          | B     | A     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.3   | 0.2   | -   | -   | -   | 0.3   |

Lanes, Volumes, Timings  
4: Portola Av. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 100                                                                               | 733                                                                               | 126                                                                               | 136                                                                               | 471                                                                               | 44                                                                                | 153                                                                                | 651                                                                                 | 108                                                                                 | 88                                                                                  | 491                                                                                 | 65                                                                                  |
| Future Volume (vph)     | 100                                                                               | 733                                                                               | 126                                                                               | 136                                                                               | 471                                                                               | 44                                                                                | 153                                                                                | 651                                                                                 | 108                                                                                 | 88                                                                                  | 491                                                                                 | 65                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 120                                                                               |                                                                                   | 230                                                                               | 140                                                                               |                                                                                   | 100                                                                               | 260                                                                                |                                                                                     | 50                                                                                  | 180                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 120                                                                                |                                                                                     |                                                                                     | 190                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 693                                                                               |                                                                                   |                                                                                   | 4512                                                                              |                                                                                   |                                                                                    | 510                                                                                 |                                                                                     |                                                                                     | 1159                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 9.5                                                                               |                                                                                   |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                    | 6.3                                                                                 |                                                                                     |                                                                                     | 14.4                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                               | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                |
| Adj. Flow (vph)         | 106                                                                               | 780                                                                               | 134                                                                               | 145                                                                               | 501                                                                               | 47                                                                                | 163                                                                                | 693                                                                                 | 115                                                                                 | 94                                                                                  | 522                                                                                 | 69                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 106                                                                               | 780                                                                               | 134                                                                               | 145                                                                               | 501                                                                               | 47                                                                                | 163                                                                                | 693                                                                                 | 115                                                                                 | 94                                                                                  | 591                                                                                 | 0                                                                                   |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   |                                                                                     |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 |                                                                                     |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                |                                                                                     |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 10.0                                                                               | 20.7                                                                                | 20.7                                                                                | 9.8                                                                                 | 20.5                                                                                |                                                                                     |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 16.7%                                                                              | 34.5%                                                                               | 34.5%                                                                               | 16.3%                                                                               | 34.2%                                                                               |                                                                                     |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |                                                                                     |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 |                                                                                     |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               |                                                                                     |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 4: Portola Av. & Frank Sinatra Dr.

|                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |
| Ø1                                                                                  | Ø2 (R)                                                                              | Ø3                                                                                  | Ø4                                                                                    |
| 9.8 s                                                                               | 20.7 s                                                                              | 9.5 s                                                                               | 20 s                                                                                  |
|  |  |  |  |
| Ø5                                                                                  | Ø6 (R)                                                                              | Ø7                                                                                  | Ø8                                                                                    |
| 10 s                                                                                | 20.5 s                                                                              | 9.5 s                                                                               | 20 s                                                                                  |

# HCM 6th Signalized Intersection Summary 4: Portola Av. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                              |  |                                                                                    |  |  |                                                                                    |  |  |                                                                                                                                                                          |  |  |                                                                                                                                                                          |  |
|------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                                                                                                                 | EBR                                                                               | WBL                                                                               | WBT                                                                                                                                                                 | WBR                                                                               | NBL                                                                                 | NBT                                                                                                                                                                                                                                                         | NBR                                                                                 | SBL                                                                                 | SBT                                                                                                                                                                                                                                                         | SBR                                                                                 |
| Lane Configurations          |  |   |  |  |   |  |  |    |  |  |    |  |
| Traffic Volume (veh/h)       | 100                                                                               | 733                                                                                                                                                                 | 126                                                                               | 136                                                                               | 471                                                                                                                                                                 | 44                                                                                | 153                                                                                 | 651                                                                                                                                                                                                                                                         | 108                                                                                 | 88                                                                                  | 491                                                                                                                                                                                                                                                         | 65                                                                                  |
| Future Volume (veh/h)        | 100                                                                               | 733                                                                                                                                                                 | 126                                                                               | 136                                                                               | 471                                                                                                                                                                 | 44                                                                                | 153                                                                                 | 651                                                                                                                                                                                                                                                         | 108                                                                                 | 88                                                                                  | 491                                                                                                                                                                                                                                                         | 65                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                                                                                                   | 0                                                                                 | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   | 0                                                                                   | 0                                                                                                                                                                                                                                                           | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                              |                                                                                                                                                                     | 0.99                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                   | No                                                                                                                                                                  |                                                                                   |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |                                                                                     | No                                                                                                                                                                                                                                                          |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                              | 1870                                                                                                                                                                | 1870                                                                              | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                | 1870                                                                                | 1870                                                                                                                                                                                                                                                        | 1870                                                                                |
| Adj Flow Rate, veh/h         | 106                                                                               | 780                                                                                                                                                                 | 134                                                                               | 145                                                                               | 501                                                                                                                                                                 | 47                                                                                | 163                                                                                 | 693                                                                                                                                                                                                                                                         | 115                                                                                 | 94                                                                                  | 522                                                                                                                                                                                                                                                         | 69                                                                                  |
| Peak Hour Factor             | 0.94                                                                              | 0.94                                                                                                                                                                | 0.94                                                                              | 0.94                                                                              | 0.94                                                                                                                                                                | 0.94                                                                              | 0.94                                                                                | 0.94                                                                                                                                                                                                                                                        | 0.94                                                                                | 0.94                                                                                | 0.94                                                                                                                                                                                                                                                        | 0.94                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                 | 2                                                                                                                                                                   | 2                                                                                 | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   | 2                                                                                   | 2                                                                                                                                                                                                                                                           | 2                                                                                   |
| Cap, veh/h                   | 136                                                                               | 911                                                                                                                                                                 | 404                                                                               | 148                                                                               | 936                                                                                                                                                                 | 415                                                                               | 163                                                                                 | 1580                                                                                                                                                                                                                                                        | 488                                                                                 | 120                                                                                 | 1304                                                                                                                                                                                                                                                        | 170                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.26                                                                                                                                                                | 0.26                                                                              | 0.08                                                                              | 0.26                                                                                                                                                                | 0.26                                                                              | 0.09                                                                                | 0.31                                                                                                                                                                                                                                                        | 0.31                                                                                | 0.07                                                                                | 0.29                                                                                                                                                                                                                                                        | 0.29                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                                                                                                                | 1576                                                                              | 1781                                                                              | 3554                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 5106                                                                                                                                                                                                                                                        | 1577                                                                                | 1781                                                                                | 4569                                                                                                                                                                                                                                                        | 595                                                                                 |
| Grp Volume(v), veh/h         | 106                                                                               | 780                                                                                                                                                                 | 134                                                                               | 145                                                                               | 501                                                                                                                                                                 | 47                                                                                | 163                                                                                 | 693                                                                                                                                                                                                                                                         | 115                                                                                 | 94                                                                                  | 387                                                                                                                                                                                                                                                         | 204                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                                                                                                                | 1576                                                                              | 1781                                                                              | 1777                                                                                                                                                                | 1576                                                                              | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1577                                                                                | 1781                                                                                | 1702                                                                                                                                                                                                                                                        | 1760                                                                                |
| Q Serve(g_s), s              | 3.5                                                                               | 12.5                                                                                                                                                                | 4.1                                                                               | 4.9                                                                               | 7.3                                                                                                                                                                 | 1.4                                                                               | 5.5                                                                                 | 6.5                                                                                                                                                                                                                                                         | 3.3                                                                                 | 3.1                                                                                 | 5.5                                                                                                                                                                                                                                                         | 5.6                                                                                 |
| Cycle Q Clear(g_c), s        | 3.5                                                                               | 12.5                                                                                                                                                                | 4.1                                                                               | 4.9                                                                               | 7.3                                                                                                                                                                 | 1.4                                                                               | 5.5                                                                                 | 6.5                                                                                                                                                                                                                                                         | 3.3                                                                                 | 3.1                                                                                 | 5.5                                                                                                                                                                                                                                                         | 5.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                              |                                                                                                                                                                     | 1.00                                                                              | 1.00                                                                                |                                                                                                                                                                                                                                                             | 1.00                                                                                | 1.00                                                                                |                                                                                                                                                                                                                                                             | 0.34                                                                                |
| Lane Grp Cap(c), veh/h       | 136                                                                               | 911                                                                                                                                                                 | 404                                                                               | 148                                                                               | 936                                                                                                                                                                 | 415                                                                               | 163                                                                                 | 1580                                                                                                                                                                                                                                                        | 488                                                                                 | 120                                                                                 | 971                                                                                                                                                                                                                                                         | 502                                                                                 |
| V/C Ratio(X)                 | 0.78                                                                              | 0.86                                                                                                                                                                | 0.33                                                                              | 0.98                                                                              | 0.53                                                                                                                                                                | 0.11                                                                              | 1.00                                                                                | 0.44                                                                                                                                                                                                                                                        | 0.24                                                                                | 0.78                                                                                | 0.40                                                                                                                                                                                                                                                        | 0.41                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 948                                                                                                                                                                 | 420                                                                               | 148                                                                               | 948                                                                                                                                                                 | 420                                                                               | 163                                                                                 | 1580                                                                                                                                                                                                                                                        | 488                                                                                 | 157                                                                                 | 971                                                                                                                                                                                                                                                         | 502                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                                                                                                                | 1.00                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                | 0.92                                                                              | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                                                                                                                                                                                        | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.2                                                                              | 21.3                                                                                                                                                                | 18.1                                                                              | 27.4                                                                              | 18.9                                                                                                                                                                | 16.8                                                                              | 27.2                                                                                | 16.5                                                                                                                                                                                                                                                        | 15.4                                                                                | 27.5                                                                                | 17.3                                                                                                                                                                                                                                                        | 17.3                                                                                |
| Incr Delay (d2), s/veh       | 21.5                                                                              | 7.6                                                                                                                                                                 | 0.5                                                                               | 63.7                                                                              | 0.5                                                                                                                                                                 | 0.1                                                                               | 69.9                                                                                | 0.9                                                                                                                                                                                                                                                         | 1.1                                                                                 | 16.9                                                                                | 1.2                                                                                                                                                                                                                                                         | 2.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                                                                                                 | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                                                                                                                                                                                         | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 2.1                                                                               | 5.3                                                                                                                                                                 | 1.3                                                                               | 4.4                                                                               | 2.5                                                                                                                                                                 | 0.4                                                                               | 5.2                                                                                 | 2.1                                                                                                                                                                                                                                                         | 1.1                                                                                 | 1.7                                                                                 | 1.9                                                                                                                                                                                                                                                         | 2.2                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| LnGrp Delay(d),s/veh         | 48.8                                                                              | 28.9                                                                                                                                                                | 18.6                                                                              | 91.2                                                                              | 19.5                                                                                                                                                                | 16.9                                                                              | 97.1                                                                                | 17.4                                                                                                                                                                                                                                                        | 16.6                                                                                | 44.4                                                                                | 18.5                                                                                                                                                                                                                                                        | 19.8                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                                                                                                   | B                                                                                 | F                                                                                 | B                                                                                                                                                                   | B                                                                                 | F                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   | D                                                                                   | B                                                                                                                                                                                                                                                           | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 1020                                                                                                                                                                |                                                                                   |                                                                                   | 693                                                                                                                                                                 |                                                                                   |                                                                                     | 971                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     | 685                                                                                                                                                                                                                                                         |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 29.6                                                                                                                                                                |                                                                                   |                                                                                   | 34.3                                                                                                                                                                |                                                                                   |                                                                                     | 30.7                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     | 22.4                                                                                                                                                                                                                                                        |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                   | C                                                                                                                                                                   |                                                                                   |                                                                                     | C                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     | C                                                                                                                                                                                                                                                           |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                                                                                                   | 3                                                                                 | 4                                                                                 | 5                                                                                                                                                                   | 6                                                                                 | 7                                                                                   | 8                                                                                                                                                                                                                                                           |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.6                                                                               | 22.6                                                                                                                                                                | 9.5                                                                               | 19.4                                                                              | 10.0                                                                                                                                                                | 21.1                                                                              | 9.1                                                                                 | 19.8                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                                                                                                                 | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                                                                                                 | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Green Setting (Gmax), s  | 5.3                                                                               | 16.7                                                                                                                                                                | 5.0                                                                               | 16.0                                                                              | 5.5                                                                                                                                                                 | 16.5                                                                              | 5.0                                                                                 | 16.0                                                                                                                                                                                                                                                        |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 5.1                                                                               | 8.5                                                                                                                                                                 | 6.9                                                                               | 14.5                                                                              | 7.5                                                                                                                                                                 | 7.6                                                                               | 5.5                                                                                 | 9.3                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 2.8                                                                                                                                                                 | 0.0                                                                               | 0.8                                                                               | 0.0                                                                                                                                                                 | 2.1                                                                               | 0.0                                                                                 | 1.7                                                                                                                                                                                                                                                         |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                                                                                                     | 29.4                                                                              |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                                                                                                     | C                                                                                 |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                             |                                                                                     |

Lanes, Volumes, Timings  
5: Cook St. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |   |  |                                                                                     |  |  |  |
| Traffic Volume (vph)    | 364                                                                               | 379                                                                               | 144                                                                               | 52                                                                                | 307                                                                               | 41                                                                                | 128                                                                                 | 1174                                                                                | 86                                                                                  | 78                                                                                  | 1016                                                                                | 224                                                                                 |
| Future Volume (vph)     | 364                                                                               | 379                                                                               | 144                                                                               | 52                                                                                | 307                                                                               | 41                                                                                | 128                                                                                 | 1174                                                                                | 86                                                                                  | 78                                                                                  | 1016                                                                                | 224                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 140                                                                               |                                                                                   | 135                                                                               | 135                                                                               |                                                                                   | 260                                                                               | 140                                                                                 |                                                                                     | 0                                                                                   | 210                                                                                 |                                                                                     | 220                                                                                 |
| Storage Lanes           | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                   |                                                                                     | 0                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 210                                                                               |                                                                                   |                                                                                   | 110                                                                               |                                                                                   |                                                                                   | 110                                                                                 |                                                                                     |                                                                                     | 140                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 4512                                                                              |                                                                                   |                                                                                   | 1444                                                                              |                                                                                   |                                                                                     | 671                                                                                 |                                                                                     |                                                                                     | 1610                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 61.5                                                                              |                                                                                   |                                                                                   | 19.7                                                                              |                                                                                   |                                                                                     | 8.3                                                                                 |                                                                                     |                                                                                     | 20.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Adj. Flow (vph)         | 396                                                                               | 412                                                                               | 157                                                                               | 57                                                                                | 334                                                                               | 45                                                                                | 139                                                                                 | 1276                                                                                | 93                                                                                  | 85                                                                                  | 1104                                                                                | 243                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 396                                                                               | 412                                                                               | 157                                                                               | 57                                                                                | 334                                                                               | 45                                                                                | 139                                                                                 | 1369                                                                                | 0                                                                                   | 85                                                                                  | 1104                                                                                | 243                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  |                                                                                     | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 |                                                                                     | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                |                                                                                     | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 21.0                                                                                |                                                                                     | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                               | 35.0%                                                                               |                                                                                     | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 |                                                                                     | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 |                                                                                     | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 |                                                                                     | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 |                                                                                     | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 |                                                                                     | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               |                                                                                     | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Cook St. & Frank Sinatra Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

HCM 6th Signalized Intersection Summary  
5: Cook St. & Frank Sinatra Dr.

EAPC (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |                                                                                     |  |  |  |
| Traffic Volume (veh/h)       | 364                                                                               | 379                                                                               | 144                                                                               | 52                                                                                | 307                                                                               | 41                                                                                | 128                                                                                 | 1174                                                                                | 86                                                                                  | 78                                                                                  | 1016                                                                                | 224                                                                                 |
| Future Volume (veh/h)        | 364                                                                               | 379                                                                               | 144                                                                               | 52                                                                                | 307                                                                               | 41                                                                                | 128                                                                                 | 1174                                                                                | 86                                                                                  | 78                                                                                  | 1016                                                                                | 224                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                     | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 396                                                                               | 412                                                                               | 157                                                                               | 57                                                                                | 334                                                                               | 45                                                                                | 139                                                                                 | 1276                                                                                | 93                                                                                  | 85                                                                                  | 1104                                                                                | 243                                                                                 |
| Peak Hour Factor             | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 288                                                                               | 658                                                                               | 291                                                                               | 177                                                                               | 543                                                                               | 240                                                                               | 260                                                                                 | 1402                                                                                | 102                                                                                 | 218                                                                                 | 2070                                                                                | 640                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.19                                                                              | 0.19                                                                              | 0.05                                                                              | 0.15                                                                              | 0.15                                                                              | 0.08                                                                                | 0.42                                                                                | 0.42                                                                                | 0.06                                                                                | 0.41                                                                                | 0.41                                                                                |
| Sat Flow, veh/h              | 3456                                                                              | 3554                                                                              | 1572                                                                              | 3456                                                                              | 3554                                                                              | 1569                                                                              | 3456                                                                                | 3358                                                                                | 244                                                                                 | 3456                                                                                | 5106                                                                                | 1579                                                                                |
| Grp Volume(v), veh/h         | 396                                                                               | 412                                                                               | 157                                                                               | 57                                                                                | 334                                                                               | 45                                                                                | 139                                                                                 | 674                                                                                 | 695                                                                                 | 85                                                                                  | 1104                                                                                | 243                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1728                                                                              | 1777                                                                              | 1572                                                                              | 1728                                                                              | 1777                                                                              | 1569                                                                              | 1728                                                                                | 1777                                                                                | 1825                                                                                | 1728                                                                                | 1702                                                                                | 1579                                                                                |
| Q Serve(g_s), s              | 5.0                                                                               | 6.4                                                                               | 5.4                                                                               | 1.0                                                                               | 5.3                                                                               | 1.5                                                                               | 2.3                                                                                 | 21.4                                                                                | 21.5                                                                                | 1.4                                                                                 | 9.8                                                                                 | 6.5                                                                                 |
| Cycle Q Clear(g_c), s        | 5.0                                                                               | 6.4                                                                               | 5.4                                                                               | 1.0                                                                               | 5.3                                                                               | 1.5                                                                               | 2.3                                                                                 | 21.4                                                                                | 21.5                                                                                | 1.4                                                                                 | 9.8                                                                                 | 6.5                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 0.13                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 288                                                                               | 658                                                                               | 291                                                                               | 177                                                                               | 543                                                                               | 240                                                                               | 260                                                                                 | 742                                                                                 | 762                                                                                 | 218                                                                                 | 2070                                                                                | 640                                                                                 |
| V/C Ratio(X)                 | 1.38                                                                              | 0.63                                                                              | 0.54                                                                              | 0.32                                                                              | 0.62                                                                              | 0.19                                                                              | 0.54                                                                                | 0.91                                                                                | 0.91                                                                                | 0.39                                                                                | 0.53                                                                                | 0.38                                                                                |
| Avail Cap(c_a), veh/h        | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                               | 948                                                                               | 419                                                                               | 288                                                                                 | 742                                                                                 | 762                                                                                 | 288                                                                                 | 2070                                                                                | 640                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 0.58                                                                              | 0.58                                                                              | 0.58                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.81                                                                                | 0.81                                                                                | 0.81                                                                                |
| Uniform Delay (d), s/veh     | 27.5                                                                              | 22.5                                                                              | 22.1                                                                              | 27.5                                                                              | 23.8                                                                              | 22.2                                                                              | 26.7                                                                                | 16.4                                                                                | 16.4                                                                                | 27.0                                                                                | 13.5                                                                                | 12.5                                                                                |
| Incr Delay (d2), s/veh       | 181.2                                                                             | 0.6                                                                               | 0.9                                                                               | 1.0                                                                               | 1.1                                                                               | 0.4                                                                               | 1.7                                                                                 | 17.1                                                                                | 17.1                                                                                | 0.9                                                                                 | 0.8                                                                                 | 1.4                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 9.1                                                                               | 2.3                                                                               | 1.8                                                                               | 0.4                                                                               | 2.0                                                                               | 0.5                                                                               | 0.9                                                                                 | 9.7                                                                                 | 10.0                                                                                | 0.5                                                                                 | 2.9                                                                                 | 2.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 208.7                                                                             | 23.1                                                                              | 23.0                                                                              | 28.5                                                                              | 24.9                                                                              | 22.5                                                                              | 28.5                                                                                | 33.5                                                                                | 33.6                                                                                | 27.9                                                                                | 14.3                                                                                | 13.9                                                                                |
| LnGrp LOS                    | F                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   | C                                                                                   | C                                                                                   | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 965                                                                               |                                                                                   |                                                                                   | 436                                                                               |                                                                                   |                                                                                     | 1508                                                                                |                                                                                     |                                                                                     | 1432                                                                                |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 99.3                                                                              |                                                                                   |                                                                                   | 25.1                                                                              |                                                                                   |                                                                                     | 33.1                                                                                |                                                                                     |                                                                                     | 15.1                                                                                |                                                                                     |
| Approach LOS                 |                                                                                   | F                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                     | C                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 8.3                                                                               | 29.0                                                                              | 7.6                                                                               | 15.1                                                                              | 9.0                                                                               | 28.3                                                                              | 9.5                                                                                 | 13.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 3.4                                                                               | 23.5                                                                              | 3.0                                                                               | 8.4                                                                               | 4.3                                                                               | 11.8                                                                              | 7.0                                                                                 | 7.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 1.8                                                                               | 0.0                                                                               | 3.2                                                                               | 0.0                                                                                 | 1.3                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   | 41.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
6: Portola Av. & Retreat Circ. (N)

EAPC (2024) PM Peak Hour

|                         |  |  |                                                                                                                                                                      |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |    |  |  |   |
| Traffic Volume (vph)    | 0                                                                                 | 20                                                                                | 892                                                                                                                                                                                                                                                   | 10                                                                                | 25                                                                                | 730                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 20                                                                                | 892                                                                                                                                                                                                                                                   | 10                                                                                | 25                                                                                | 730                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 217                                                                               |                                                                                   | 282                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 254                                                                                                                                                                 |
| Travel Time (s)         | 4.9                                                                               |                                                                                   | 3.5                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 3.1                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                                                                                                  | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 22                                                                                | 959                                                                                                                                                                                                                                                   | 11                                                                                | 27                                                                                | 785                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 22                                                                                | 959                                                                                                                                                                                                                                                   | 11                                                                                | 27                                                                                | 785                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |        |          |       |        |      |      |
|--------------------------|--------|----------|-------|--------|------|------|
| Int Delay, s/veh         | 0.4    |          |       |        |      |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗        | ↑↑↑   | ↗      | ↘    | ↑↑   |
| Traffic Vol, veh/h       | 0      | 20       | 892   | 10     | 25   | 730  |
| Future Vol, veh/h        | 0      | 20       | 892   | 10     | 25   | 730  |
| Conflicting Peds, #/hr   | 5      | 5        | 0     | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free  | Free   | Free | Free |
| RT Channelized           | -      | None     | -     | None   | -    | None |
| Storage Length           | -      | -        | -     | 150    | 150  | -    |
| Veh in Median Storage, # | 0      | -        | 0     | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0     | -      | -    | 0    |
| Peak Hour Factor         | 93     | 93       | 93    | 93     | 93   | 93   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 22       | 959   | 11     | 27   | 785  |
| Major/Minor              | Minor1 | Major1   |       | Major2 |      |      |
| Conflicting Flow All     | -      | 490      | 0     | 0      | 975  | 0    |
| Stage 1                  | -      | -        | -     | -      | -    | -    |
| Stage 2                  | -      | -        | -     | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -     | -      | 5.34 | -    |
| Critical Hdwy Stg 1      | -      | -        | -     | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -     | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -     | -      | 3.12 | -    |
| Pot Cap-1 Maneuver       | 0      | 448      | -     | -      | 402  | -    |
| Stage 1                  | 0      | -        | -     | -      | -    | -    |
| Stage 2                  | 0      | -        | -     | -      | -    | -    |
| Platoon blocked, %       |        |          | -     | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 444      | -     | -      | 400  | -    |
| Mov Cap-2 Maneuver       | -      | -        | -     | -      | -    | -    |
| Stage 1                  | -      | -        | -     | -      | -    | -    |
| Stage 2                  | -      | -        | -     | -      | -    | -    |
| Approach                 | WB     | NB       |       | SB     |      |      |
| HCM Control Delay, s     | 13.5   | 0        |       | 0.5    |      |      |
| HCM LOS                  | B      |          |       |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |      |      |
| Capacity (veh/h)         | -      | -        | 444   | 400    | -    |      |
| HCM Lane V/C Ratio       | -      | -        | 0.048 | 0.067  | -    |      |
| HCM Control Delay (s)    | -      | -        | 13.5  | 14.6   | -    |      |
| HCM Lane LOS             | -      | -        | B     | B      | -    |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.2   | 0.2    | -    |      |

Lanes, Volumes, Timings  
7: Portola Av. & Retreat Circ. (S)

EAPC (2024) PM Peak Hour

|                         |  |  |                                                                                                                                                                      |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                                                                                                   | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |                                                                                   |  |    |                                                                                   |                                                                                   |   |
| Traffic Volume (vph)    | 0                                                                                 | 2                                                                                 | 952                                                                                                                                                                                                                                                   | 1                                                                                 | 0                                                                                 | 676                                                                                                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 2                                                                                 | 952                                                                                                                                                                                                                                                   | 1                                                                                 | 0                                                                                 | 676                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 150                                                                               | 150                                                                               |                                                                                                                                                                                                                                                       | 150                                                                               | 150                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 0                                                                                 | 0                                                                                 |                                                                                                                                                                                                                                                       | 0                                                                                 | 0                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   | 90                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                                                                                                    |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 243                                                                               |                                                                                   | 194                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 417                                                                                                                                                                 |
| Travel Time (s)         | 5.5                                                                               |                                                                                   | 2.4                                                                                                                                                                                                                                                   |                                                                                   |                                                                                   | 5.2                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                                                                                                       | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                |
| Adj. Flow (vph)         | 0                                                                                 | 2                                                                                 | 1035                                                                                                                                                                                                                                                  | 1                                                                                 | 0                                                                                 | 735                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 0                                                                                 | 2                                                                                 | 1036                                                                                                                                                                                                                                                  | 0                                                                                 | 0                                                                                 | 735                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                                                                                                  |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                   |                                                                                   |                                                                                                                                                                     |

HCM 6th TWSC  
7: Portola Av. & Retreat Circ. (S)

EAPC (2024) PM Peak Hour

| Intersection             |        |          |         |        |      |      |
|--------------------------|--------|----------|---------|--------|------|------|
| Int Delay, s/veh         | 0      |          |         |        |      |      |
| Movement                 | WBL    | WBR      | NBT     | NBR    | SBL  | SBT  |
| Lane Configurations      |        | ↗ ↘ ↘ ↘  | ↗ ↘ ↘ ↘ |        |      | ↗ ↘  |
| Traffic Vol, veh/h       | 0      | 2        | 952     | 1      | 0    | 676  |
| Future Vol, veh/h        | 0      | 2        | 952     | 1      | 0    | 676  |
| Conflicting Peds, #/hr   | 5      | 5        | 0       | 5      | 5    | 0    |
| Sign Control             | Stop   | Stop     | Free    | Free   | Free | Free |
| RT Channelized           | -      | None     | -       | None   | -    | None |
| Storage Length           | -      | -        | -       | -      | -    | -    |
| Veh in Median Storage, # | 0      | -        | 0       | -      | -    | 0    |
| Grade, %                 | 0      | -        | 0       | -      | -    | 0    |
| Peak Hour Factor         | 92     | 92       | 92      | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2        | 2       | 2      | 2    | 2    |
| Mvmt Flow                | 0      | 2        | 1035    | 1      | 0    | 735  |
| Major/Minor              | Minor1 | Major1   |         | Major2 |      |      |
| Conflicting Flow All     | -      | 528      | 0       | 0      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Critical Hdwy            | -      | 7.14     | -       | -      | -    | -    |
| Critical Hdwy Stg 1      | -      | -        | -       | -      | -    | -    |
| Critical Hdwy Stg 2      | -      | -        | -       | -      | -    | -    |
| Follow-up Hdwy           | -      | 3.92     | -       | -      | -    | -    |
| Pot Cap-1 Maneuver       | 0      | 424      | -       | -      | 0    | -    |
| Stage 1                  | 0      | -        | -       | -      | 0    | -    |
| Stage 2                  | 0      | -        | -       | -      | 0    | -    |
| Platoon blocked, %       |        |          | -       | -      |      | -    |
| Mov Cap-1 Maneuver       | -      | 420      | -       | -      | -    | -    |
| Mov Cap-2 Maneuver       | -      | -        | -       | -      | -    | -    |
| Stage 1                  | -      | -        | -       | -      | -    | -    |
| Stage 2                  | -      | -        | -       | -      | -    | -    |
| Approach                 | WB     | NB       |         | SB     |      |      |
| HCM Control Delay, s     | 13.6   | 0        |         | 0      |      |      |
| HCM LOS                  | B      |          |         |        |      |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 |         | SBT    |      |      |
| Capacity (veh/h)         | -      | 420      |         | -      |      |      |
| HCM Lane V/C Ratio       | -      | 0.005    |         | -      |      |      |
| HCM Control Delay (s)    | -      | 13.6     |         | -      |      |      |
| HCM Lane LOS             | -      | B        |         | -      |      |      |
| HCM 95th %tile Q(veh)    | -      | 0        |         | -      |      |      |

Lanes, Volumes, Timings  
8: Portola Av. & Willow Ridge

EAPC (2024) PM Peak Hour

|                         |  |  |                                                                                    |  |  |                                                                                    |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group              | WBL                                                                               | WBR                                                                               | NBT                                                                                                                                                                 | NBR                                                                               | SBL                                                                               | SBT                                                                                                                                                                 |
| Lane Configurations     |  |  |   |  |  |   |
| Traffic Volume (vph)    | 46                                                                                | 27                                                                                | 931                                                                                                                                                                 | 42                                                                                | 31                                                                                | 652                                                                                                                                                                 |
| Future Volume (vph)     | 47                                                                                | 28                                                                                | 931                                                                                                                                                                 | 42                                                                                | 31                                                                                | 652                                                                                                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                |
| Storage Length (ft)     | 0                                                                                 | 50                                                                                |                                                                                                                                                                     | 150                                                                               | 100                                                                               |                                                                                                                                                                     |
| Storage Lanes           | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     | 1                                                                                 | 1                                                                                 |                                                                                                                                                                     |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                                                                                                     |                                                                                   | 60                                                                                |                                                                                                                                                                     |
| Link Speed (mph)        | 30                                                                                |                                                                                   | 55                                                                                                                                                                  |                                                                                   |                                                                                   | 55                                                                                                                                                                  |
| Link Distance (ft)      | 309                                                                               |                                                                                   | 2578                                                                                                                                                                |                                                                                   |                                                                                   | 801                                                                                                                                                                 |
| Travel Time (s)         | 7.0                                                                               |                                                                                   | 32.0                                                                                                                                                                |                                                                                   |                                                                                   | 9.9                                                                                                                                                                 |
| Confl. Peds. (#/hr)     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     | 5                                                                                 | 5                                                                                 |                                                                                                                                                                     |
| Peak Hour Factor        | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                | 0.93                                                                              | 0.93                                                                              | 0.93                                                                                                                                                                |
| Adj. Flow (vph)         | 51                                                                                | 30                                                                                | 1001                                                                                                                                                                | 45                                                                                | 33                                                                                | 701                                                                                                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Lane Group Flow (vph)   | 51                                                                                | 30                                                                                | 1001                                                                                                                                                                | 45                                                                                | 33                                                                                | 701                                                                                                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   | Free                                                                                                                                                                |                                                                                   |                                                                                   | Free                                                                                                                                                                |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                                                                                                     |                                                                                   |                                                                                   |                                                                                                                                                                     |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.1                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |  |  |  |  |  |
| Traffic Vol, veh/h       | 46                                                                                | 27                                                                                | 931                                                                               | 42                                                                                | 31                                                                                | 652                                                                               |
| Future Vol, veh/h        | 47                                                                                | 28                                                                                | 931                                                                               | 42                                                                                | 31                                                                                | 652                                                                               |
| Conflicting Peds, #/hr   | 5                                                                                 | 5                                                                                 | 0                                                                                 | 5                                                                                 | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | 50                                                                                | -                                                                                 | 150                                                                               | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 51                                                                                | 30                                                                                | 1001                                                                              | 45                                                                                | 33                                                                                | 701                                                                               |
| Major/Minor              | Minor1                                                                            | Major1                                                                            | Major2                                                                            |                                                                                   |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1428                                                                              | 511                                                                               | 0                                                                                 | 0                                                                                 | 1051                                                                              | 0                                                                                 |
| Stage 1                  | 1006                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 422                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| 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       | 126                                                                               | 508                                                                               | -                                                                                 | -                                                                                 | 658                                                                               | -                                                                                 |
| Stage 1                  | 314                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 629                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 119                                                                               | 503                                                                               | -                                                                                 | -                                                                                 | 655                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver       | 234                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                  | 312                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                  | 594                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB                                                                                | SB                                                                                |                                                                                   |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 20.1                                                                              | 0                                                                                 | 0.5                                                                               |                                                                                   |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT                                                                               |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | - 234 503                                                                         | 655                                                                               | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | - 0.216 0.06                                                                      | 0.051                                                                             | -                                                                                 |                                                                                   |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | - 24.6 12.6                                                                       | 10.8                                                                              | -                                                                                 |                                                                                   |                                                                                   |
| HCM Lane LOS             | -                                                                                 | - C B                                                                             | B                                                                                 | -                                                                                 |                                                                                   |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | - 0.8 0.2                                                                         | 0.2                                                                               | -                                                                                 |                                                                                   |                                                                                   |

Lanes, Volumes, Timings  
9: Portola Av. & Country Club Dr.

EAPC (2024) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 52                                                                                | 800                                                                               | 233                                                                               | 286                                                                               | 584                                                                               | 152                                                                               | 212                                                                                 | 706                                                                                 | 249                                                                                 | 98                                                                                  | 592                                                                                 | 62                                                                                  |
| Future Volume (vph)     | 52                                                                                | 800                                                                               | 233                                                                               | 286                                                                               | 584                                                                               | 152                                                                               | 212                                                                                 | 706                                                                                 | 249                                                                                 | 98                                                                                  | 592                                                                                 | 62                                                                                  |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 200                                                                               |                                                                                   | 105                                                                               | 180                                                                               |                                                                                   | 80                                                                                | 160                                                                                 |                                                                                     | 135                                                                                 | 200                                                                                 |                                                                                     | 50                                                                                  |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 1                                                                                   |
| Taper Length (ft)       | 120                                                                               |                                                                                   |                                                                                   | 90                                                                                |                                                                                   |                                                                                   | 100                                                                                 |                                                                                     |                                                                                     | 60                                                                                  |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 50                                                                                |                                                                                   |                                                                                   | 50                                                                                |                                                                                   |                                                                                     | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 1030                                                                              |                                                                                   |                                                                                   | 784                                                                               |                                                                                   |                                                                                     | 945                                                                                 |                                                                                     |                                                                                     | 2578                                                                                |                                                                                     |
| Travel Time (s)         |                                                                                   | 14.0                                                                              |                                                                                   |                                                                                   | 10.7                                                                              |                                                                                   |                                                                                     | 11.7                                                                                |                                                                                     |                                                                                     | 32.0                                                                                |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                   |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Adj. Flow (vph)         | 54                                                                                | 825                                                                               | 240                                                                               | 295                                                                               | 602                                                                               | 157                                                                               | 219                                                                                 | 728                                                                                 | 257                                                                                 | 101                                                                                 | 610                                                                                 | 64                                                                                  |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 54                                                                                | 825                                                                               | 240                                                                               | 295                                                                               | 602                                                                               | 157                                                                               | 219                                                                                 | 728                                                                                 | 257                                                                                 | 101                                                                                 | 610                                                                                 | 64                                                                                  |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                                | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                   | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                     |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                   | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 13.7                                                                              | 36.0                                                                              | 36.0                                                                              | 30.0                                                                              | 52.3                                                                              | 52.3                                                                              | 24.0                                                                                | 39.6                                                                                | 39.6                                                                                | 14.4                                                                                | 30.0                                                                                | 30.0                                                                                |
| Total Split (%)         | 11.4%                                                                             | 30.0%                                                                             | 30.0%                                                                             | 25.0%                                                                             | 43.6%                                                                             | 43.6%                                                                             | 20.0%                                                                               | 33.0%                                                                               | 33.0%                                                                               | 12.0%                                                                               | 25.0%                                                                               | 25.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                                | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                                | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 120

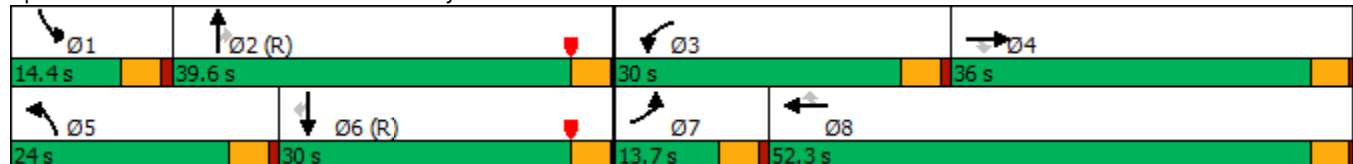
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 9: Portola Av. & Country Club Dr.



HCM 6th Signalized Intersection Summary  
9: Portola Av. & Country Club Dr.

EAPC (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h)       | 52                                                                                | 800                                                                               | 233                                                                               | 286                                                                               | 584                                                                               | 152                                                                               | 212                                                                                 | 706                                                                                 | 249                                                                                 | 98                                                                                  | 592                                                                                 | 62                                                                                  |
| Future Volume (veh/h)        | 52                                                                                | 800                                                                               | 233                                                                               | 286                                                                               | 584                                                                               | 152                                                                               | 212                                                                                 | 706                                                                                 | 249                                                                                 | 98                                                                                  | 592                                                                                 | 62                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 54                                                                                | 825                                                                               | 240                                                                               | 295                                                                               | 602                                                                               | 157                                                                               | 219                                                                                 | 728                                                                                 | 257                                                                                 | 101                                                                                 | 610                                                                                 | 64                                                                                  |
| Peak Hour Factor             | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                              | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                | 0.97                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 70                                                                                | 908                                                                               | 403                                                                               | 324                                                                               | 1415                                                                              | 629                                                                               | 247                                                                                 | 1247                                                                                | 554                                                                                 | 125                                                                                 | 1003                                                                                | 445                                                                                 |
| Arrive On Green              | 0.04                                                                              | 0.26                                                                              | 0.26                                                                              | 0.18                                                                              | 0.40                                                                              | 0.40                                                                              | 0.14                                                                                | 0.35                                                                                | 0.35                                                                                | 0.07                                                                                | 0.28                                                                                | 0.28                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1576                                                                              | 1781                                                                              | 3554                                                                              | 1579                                                                              | 1781                                                                                | 3554                                                                                | 1578                                                                                | 1781                                                                                | 3554                                                                                | 1577                                                                                |
| Grp Volume(v), veh/h         | 54                                                                                | 825                                                                               | 240                                                                               | 295                                                                               | 602                                                                               | 157                                                                               | 219                                                                                 | 728                                                                                 | 257                                                                                 | 101                                                                                 | 610                                                                                 | 64                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1576                                                                              | 1781                                                                              | 1777                                                                              | 1579                                                                              | 1781                                                                                | 1777                                                                                | 1578                                                                                | 1781                                                                                | 1777                                                                                | 1577                                                                                |
| Q Serve(g_s), s              | 3.6                                                                               | 27.0                                                                              | 16.1                                                                              | 19.5                                                                              | 14.7                                                                              | 8.0                                                                               | 14.5                                                                                | 20.1                                                                                | 15.2                                                                                | 6.7                                                                                 | 17.8                                                                                | 3.6                                                                                 |
| Cycle Q Clear(g_c), s        | 3.6                                                                               | 27.0                                                                              | 16.1                                                                              | 19.5                                                                              | 14.7                                                                              | 8.0                                                                               | 14.5                                                                                | 20.1                                                                                | 15.2                                                                                | 6.7                                                                                 | 17.8                                                                                | 3.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 70                                                                                | 908                                                                               | 403                                                                               | 324                                                                               | 1415                                                                              | 629                                                                               | 247                                                                                 | 1247                                                                                | 554                                                                                 | 125                                                                                 | 1003                                                                                | 445                                                                                 |
| V/C Ratio(X)                 | 0.77                                                                              | 0.91                                                                              | 0.60                                                                              | 0.91                                                                              | 0.43                                                                              | 0.25                                                                              | 0.89                                                                                | 0.58                                                                                | 0.46                                                                                | 0.81                                                                                | 0.61                                                                                | 0.14                                                                                |
| Avail Cap(c_a), veh/h        | 137                                                                               | 948                                                                               | 420                                                                               | 379                                                                               | 1430                                                                              | 636                                                                               | 289                                                                                 | 1247                                                                                | 554                                                                                 | 147                                                                                 | 1003                                                                                | 445                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 57.1                                                                              | 43.3                                                                              | 39.2                                                                              | 48.1                                                                              | 26.2                                                                              | 24.1                                                                              | 50.8                                                                                | 31.8                                                                                | 30.2                                                                                | 55.0                                                                                | 37.3                                                                                | 32.2                                                                                |
| Incr Delay (d2), s/veh       | 16.5                                                                              | 12.1                                                                              | 2.1                                                                               | 23.5                                                                              | 0.2                                                                               | 0.2                                                                               | 24.0                                                                                | 2.0                                                                                 | 2.8                                                                                 | 24.1                                                                                | 2.7                                                                                 | 0.7                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.9                                                                               | 12.8                                                                              | 6.2                                                                               | 10.4                                                                              | 5.9                                                                               | 2.9                                                                               | 7.8                                                                                 | 8.4                                                                                 | 5.9                                                                                 | 3.7                                                                                 | 7.7                                                                                 | 1.4                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 73.6                                                                              | 55.4                                                                              | 41.4                                                                              | 71.6                                                                              | 26.4                                                                              | 24.3                                                                              | 74.7                                                                                | 33.8                                                                                | 33.0                                                                                | 79.1                                                                                | 40.0                                                                                | 32.9                                                                                |
| LnGrp LOS                    | E                                                                                 | E                                                                                 | D                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | E                                                                                   | C                                                                                   | C                                                                                   | E                                                                                   | D                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 1119                                                                              |                                                                                   |                                                                                   | 1054                                                                              |                                                                                   |                                                                                   | 1204                                                                                |                                                                                     |                                                                                     | 775                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 53.3                                                                              |                                                                                   |                                                                                   | 38.7                                                                              |                                                                                   |                                                                                   | 41.1                                                                                |                                                                                     |                                                                                     | 44.5                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 12.9                                                                              | 46.1                                                                              | 26.3                                                                              | 34.7                                                                              | 21.1                                                                              | 37.9                                                                              | 9.2                                                                                 | 51.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 9.9                                                                               | 35.6                                                                              | 25.5                                                                              | 32.0                                                                              | 19.5                                                                              | 26.0                                                                              | 9.2                                                                                 | 48.3                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 8.7                                                                               | 22.1                                                                              | 21.5                                                                              | 29.0                                                                              | 16.5                                                                              | 19.8                                                                              | 5.6                                                                                 | 16.7                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 4.3                                                                               | 0.3                                                                               | 1.7                                                                               | 0.2                                                                               | 1.9                                                                               | 0.0                                                                                 | 4.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 44.4                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Lanes, Volumes, Timings  
10: Portola Av. & South Access

EAPC (2024) PM Peak Hour

|                         |  |  |  |                                                                                                                                                                      |                                                                                    |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBR                                                                               | NBL                                                                               | NBT                                                                                                                                                                                                                                                   | SBT                                                                                                                                                                 | SBR                                                                               |
| Lane Configurations     |                                                                                   |  |                                                                                   |    |   |                                                                                   |
| Traffic Volume (vph)    | 0                                                                                 | 8                                                                                 | 0                                                                                 | 953                                                                                                                                                                                                                                                   | 676                                                                                                                                                                 | 0                                                                                 |
| Future Volume (vph)     | 0                                                                                 | 8                                                                                 | 0                                                                                 | 953                                                                                                                                                                                                                                                   | 676                                                                                                                                                                 | 0                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                                                                                                                                                                                  | 1900                                                                                                                                                                | 1900                                                                              |
| Link Speed (mph)        | 30                                                                                |                                                                                   |                                                                                   | 55                                                                                                                                                                                                                                                    | 55                                                                                                                                                                  |                                                                                   |
| Link Distance (ft)      | 244                                                                               |                                                                                   |                                                                                   | 468                                                                                                                                                                                                                                                   | 194                                                                                                                                                                 |                                                                                   |
| Travel Time (s)         | 5.5                                                                               |                                                                                   |                                                                                   | 5.8                                                                                                                                                                                                                                                   | 2.4                                                                                                                                                                 |                                                                                   |
| Peak Hour Factor        | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                                                                                                                                                                                  | 0.92                                                                                                                                                                | 0.92                                                                              |
| Adj. Flow (vph)         | 0                                                                                 | 9                                                                                 | 0                                                                                 | 1036                                                                                                                                                                                                                                                  | 735                                                                                                                                                                 | 0                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Lane Group Flow (vph)   | 0                                                                                 | 9                                                                                 | 0                                                                                 | 1036                                                                                                                                                                                                                                                  | 735                                                                                                                                                                 | 0                                                                                 |
| Sign Control            | Stop                                                                              |                                                                                   |                                                                                   | Free                                                                                                                                                                                                                                                  | Free                                                                                                                                                                |                                                                                   |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Area Type:              | Other                                                                             |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |
| Control Type:           | Unsignalized                                                                      |                                                                                   |                                                                                   |                                                                                                                                                                                                                                                       |                                                                                                                                                                     |                                                                                   |

| Intersection             |           |        |      |        |      |      |
|--------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh         | 0.1       |        |      |        |      |      |
| Movement                 | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations      |           | ↗      |      | ↑↑↑    | ↑↑   |      |
| Traffic Vol, veh/h       | 0         | 8      | 0    | 953    | 676  | 0    |
| Future Vol, veh/h        | 0         | 8      | 0    | 953    | 676  | 0    |
| Conflicting Peds, #/hr   | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control             | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized           | -         | None   | -    | None   | -    | None |
| Storage Length           | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, # | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                 | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor         | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %        | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                | 0         | 9      | 0    | 1036   | 735  | 0    |
|                          |           |        |      |        |      |      |
| Major/Minor              | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All     | -         | 368    | -    | 0      | -    | 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         | 629    | 0    | -      | -    | 0    |
| Stage 1                  | 0         | -      | 0    | -      | -    | 0    |
| Stage 2                  | 0         | -      | 0    | -      | -    | 0    |
| Platoon blocked, %       |           |        |      | -      | -    |      |
| Mov Cap-1 Maneuver       | -         | 629    | -    | -      | -    | -    |
| Mov Cap-2 Maneuver       | -         | -      | -    | -      | -    | -    |
| Stage 1                  | -         | -      | -    | -      | -    | -    |
| Stage 2                  | -         | -      | -    | -      | -    | -    |
|                          |           |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Approach                 | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s     | 10.8      | 0      |      | 0      |      |      |
| HCM LOS                  | B         |        |      |        |      |      |
|                          |           |        |      |        |      |      |
| Minor Lane/Major Mvmt    | NBT EBLn1 |        | SBT  |        |      |      |
| Capacity (veh/h)         | - 629     |        | -    |        |      |      |
| HCM Lane V/C Ratio       | - 0.014   |        | -    |        |      |      |
| HCM Control Delay (s)    | - 10.8    |        | -    |        |      |      |
| HCM Lane LOS             | - B       |        | -    |        |      |      |
| HCM 95th %tile Q(veh)    | - 0       |        | -    |        |      |      |

Lanes, Volumes, Timings  
11: Cook St. & University Park Dr./Berger Dr.

EAPC (2024) PM Peak Hour

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations     |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)    | 129                                                                               | 15                                                                                | 65                                                                                | 17                                                                                | 26                                                                                | 58                                                                                | 102                                                                                | 1468                                                                                | 9                                                                                   | 46                                                                                  | 1236                                                                                | 181                                                                                 |
| Future Volume (vph)     | 129                                                                               | 15                                                                                | 65                                                                                | 17                                                                                | 26                                                                                | 58                                                                                | 102                                                                                | 1468                                                                                | 9                                                                                   | 46                                                                                  | 1236                                                                                | 181                                                                                 |
| Ideal Flow (vphpl)      | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)     | 180                                                                               |                                                                                   | 180                                                                               | 100                                                                               |                                                                                   | 0                                                                                 | 140                                                                                |                                                                                     | 140                                                                                 | 225                                                                                 |                                                                                     | 295                                                                                 |
| Storage Lanes           | 1                                                                                 |                                                                                   | 1                                                                                 | 0                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                  |                                                                                     | 1                                                                                   | 2                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)       | 90                                                                                |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 160                                                                                |                                                                                     |                                                                                     | 165                                                                                 |                                                                                     |                                                                                     |
| Right Turn on Red       |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Link Speed (mph)        |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 55                                                                                  |                                                                                     |                                                                                     | 55                                                                                  |                                                                                     |
| Link Distance (ft)      |                                                                                   | 449                                                                               |                                                                                   |                                                                                   | 460                                                                               |                                                                                   |                                                                                    | 1610                                                                                |                                                                                     |                                                                                     | 602                                                                                 |                                                                                     |
| Travel Time (s)         |                                                                                   | 10.2                                                                              |                                                                                   |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                    | 20.0                                                                                |                                                                                     |                                                                                     | 7.5                                                                                 |                                                                                     |
| Confl. Peds. (#/hr)     | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                 |                                                                                   | 5                                                                                 | 5                                                                                  |                                                                                     | 5                                                                                   | 5                                                                                   |                                                                                     | 5                                                                                   |
| Peak Hour Factor        | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                               | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Adj. Flow (vph)         | 143                                                                               | 17                                                                                | 72                                                                                | 19                                                                                | 29                                                                                | 64                                                                                | 113                                                                                | 1631                                                                                | 10                                                                                  | 51                                                                                  | 1373                                                                                | 201                                                                                 |
| Shared Lane Traffic (%) |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)   | 143                                                                               | 17                                                                                | 72                                                                                | 19                                                                                | 29                                                                                | 64                                                                                | 113                                                                                | 1631                                                                                | 10                                                                                  | 51                                                                                  | 1373                                                                                | 201                                                                                 |
| Turn Type               | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                              | NA                                                                                | Perm                                                                              | Prot                                                                               | NA                                                                                  | Perm                                                                                | Prot                                                                                | NA                                                                                  | Perm                                                                                |
| Protected Phases        | 7                                                                                 | 4                                                                                 |                                                                                   | 3                                                                                 | 8                                                                                 |                                                                                   | 5                                                                                  | 2                                                                                   |                                                                                     | 1                                                                                   | 6                                                                                   |                                                                                     |
| Permitted Phases        |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 8                                                                                 |                                                                                    |                                                                                     | 2                                                                                   |                                                                                     |                                                                                     | 6                                                                                   |
| Detector Phase          | 7                                                                                 | 4                                                                                 | 4                                                                                 | 3                                                                                 | 8                                                                                 | 8                                                                                 | 5                                                                                  | 2                                                                                   | 2                                                                                   | 1                                                                                   | 6                                                                                   | 6                                                                                   |
| Switch Phase            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Minimum Initial (s)     | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                               | 4.0                                                                               | 4.0                                                                               | 5.0                                                                                | 4.0                                                                                 | 4.0                                                                                 | 5.0                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Minimum Split (s)       | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 20.0                                                                                | 20.0                                                                                | 9.5                                                                                 | 20.0                                                                                | 20.0                                                                                |
| Total Split (s)         | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                               | 20.0                                                                              | 20.0                                                                              | 9.5                                                                                | 21.0                                                                                | 21.0                                                                                | 9.5                                                                                 | 21.0                                                                                | 21.0                                                                                |
| Total Split (%)         | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                             | 33.3%                                                                             | 33.3%                                                                             | 15.8%                                                                              | 35.0%                                                                               | 35.0%                                                                               | 15.8%                                                                               | 35.0%                                                                               | 35.0%                                                                               |
| Yellow Time (s)         | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                               | 3.5                                                                                | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 | 3.5                                                                                 |
| All-Red Time (s)        | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                               | 0.5                                                                               | 0.5                                                                               | 1.0                                                                                | 0.5                                                                                 | 0.5                                                                                 | 1.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 |
| Lost Time Adjust (s)    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Lost Time (s)     | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.0                                                                               | 4.5                                                                                | 4.0                                                                                 | 4.0                                                                                 | 4.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |
| Lead/Lag                | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 | Lag                                                                                 |
| Lead-Lag Optimize?      | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |
| Recall Mode             | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                              | None                                                                               | C-Max                                                                               | C-Max                                                                               | None                                                                                | C-Max                                                                               | C-Max                                                                               |

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 11: Cook St. & University Park Dr./Berger Dr.

|                                                                                        |                                                                                            |                                                                                        |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø3 |  Ø4 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø7 |  Ø8 |
| 9.5 s                                                                                  | 21 s                                                                                       | 9.5 s                                                                                  | 20 s                                                                                     |

# HCM 6th Signalized Intersection Summary

## 11: Cook St. & University Park Dr./Berger Dr.

EAPC (2024) PM Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |  |    |  |  |  |  |  |
| Traffic Volume (veh/h)       | 129                                                                               | 15                                                                                | 65                                                                                | 17                                                                                | 26                                                                                | 58                                                                                | 102                                                                                 | 1468                                                                                | 9                                                                                   | 46                                                                                  | 1236                                                                                | 181                                                                                 |
| Future Volume (veh/h)        | 129                                                                               | 15                                                                                | 65                                                                                | 17                                                                                | 26                                                                                | 58                                                                                | 102                                                                                 | 1468                                                                                | 9                                                                                   | 46                                                                                  | 1236                                                                                | 181                                                                                 |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 0.99                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 0.99                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 143                                                                               | 17                                                                                | 72                                                                                | 19                                                                                | 29                                                                                | 0                                                                                 | 113                                                                                 | 1631                                                                                | 0                                                                                   | 51                                                                                  | 1373                                                                                | 201                                                                                 |
| Peak Hour Factor             | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                | 0.90                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 148                                                                               | 257                                                                               | 215                                                                               | 40                                                                                | 143                                                                               |                                                                                   | 143                                                                                 | 2598                                                                                |                                                                                     | 165                                                                                 | 2434                                                                                | 751                                                                                 |
| Arrive On Green              | 0.08                                                                              | 0.14                                                                              | 0.14                                                                              | 0.02                                                                              | 0.08                                                                              | 0.00                                                                              | 0.16                                                                                | 1.00                                                                                | 0.00                                                                                | 0.05                                                                                | 0.48                                                                                | 0.48                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 1870                                                                              | 1568                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 5106                                                                                | 1585                                                                                | 3456                                                                                | 5106                                                                                | 1577                                                                                |
| Grp Volume(v), veh/h         | 143                                                                               | 17                                                                                | 72                                                                                | 19                                                                                | 29                                                                                | 0                                                                                 | 113                                                                                 | 1631                                                                                | 0                                                                                   | 51                                                                                  | 1373                                                                                | 201                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1870                                                                              | 1568                                                                              | 1781                                                                              | 1870                                                                              | 1585                                                                              | 1781                                                                                | 1702                                                                                | 1585                                                                                | 1728                                                                                | 1702                                                                                | 1577                                                                                |
| Q Serve(g_s), s              | 4.8                                                                               | 0.5                                                                               | 2.5                                                                               | 0.6                                                                               | 0.9                                                                               | 0.0                                                                               | 3.7                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 11.6                                                                                | 4.6                                                                                 |
| Cycle Q Clear(g_c), s        | 4.8                                                                               | 0.5                                                                               | 2.5                                                                               | 0.6                                                                               | 0.9                                                                               | 0.0                                                                               | 3.7                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.9                                                                                 | 11.6                                                                                | 4.6                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 148                                                                               | 257                                                                               | 215                                                                               | 40                                                                                | 143                                                                               |                                                                                   | 143                                                                                 | 2598                                                                                |                                                                                     | 165                                                                                 | 2434                                                                                | 751                                                                                 |
| V/C Ratio(X)                 | 0.96                                                                              | 0.07                                                                              | 0.33                                                                              | 0.47                                                                              | 0.20                                                                              |                                                                                   | 0.79                                                                                | 0.63                                                                                |                                                                                     | 0.31                                                                                | 0.56                                                                                | 0.27                                                                                |
| Avail Cap(c_a), veh/h        | 148                                                                               | 499                                                                               | 418                                                                               | 148                                                                               | 499                                                                               |                                                                                   | 148                                                                                 | 2598                                                                                |                                                                                     | 288                                                                                 | 2434                                                                                | 751                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 2.00                                                                                | 2.00                                                                                | 2.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.09                                                                                | 0.09                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 27.4                                                                              | 22.5                                                                              | 23.4                                                                              | 29.0                                                                              | 26.0                                                                              | 0.0                                                                               | 24.7                                                                                | 0.0                                                                                 | 0.0                                                                                 | 27.6                                                                                | 11.2                                                                                | 9.4                                                                                 |
| Incr Delay (d2), s/veh       | 62.6                                                                              | 0.1                                                                               | 0.9                                                                               | 8.3                                                                               | 0.7                                                                               | 0.0                                                                               | 2.6                                                                                 | 0.1                                                                                 | 0.0                                                                                 | 1.1                                                                                 | 1.0                                                                                 | 0.9                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 4.5                                                                               | 0.2                                                                               | 0.9                                                                               | 0.4                                                                               | 0.4                                                                               | 0.0                                                                               | 1.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 3.2                                                                                 | 1.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 90.0                                                                              | 22.6                                                                              | 24.3                                                                              | 37.3                                                                              | 26.7                                                                              | 0.0                                                                               | 27.4                                                                                | 0.1                                                                                 | 0.0                                                                                 | 28.7                                                                                | 12.2                                                                                | 10.3                                                                                |
| LnGrp LOS                    | F                                                                                 | C                                                                                 | C                                                                                 | D                                                                                 | C                                                                                 |                                                                                   | C                                                                                   | A                                                                                   |                                                                                     | C                                                                                   | B                                                                                   | B                                                                                   |
| Approach Vol, veh/h          | 232                                                                               |                                                                                   |                                                                                   | 48                                                                                |                                                                                   |                                                                                   | 1744                                                                                |                                                                                     |                                                                                     | 1625                                                                                |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 64.7                                                                              |                                                                                   |                                                                                   | 30.9                                                                              |                                                                                   |                                                                                   | 1.9                                                                                 |                                                                                     |                                                                                     | 12.5                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 | 3                                                                                 | 4                                                                                 | 5                                                                                 | 6                                                                                 | 7                                                                                   | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 7.4                                                                               | 34.5                                                                              | 5.9                                                                               | 12.2                                                                              | 9.3                                                                               | 32.6                                                                              | 9.5                                                                                 | 8.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                               | 4.0                                                                               | 4.5                                                                                 | 4.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 5.0                                                                               | 17.0                                                                              | 5.0                                                                               | 16.0                                                                              | 5.0                                                                               | 17.0                                                                              | 5.0                                                                                 | 16.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 2.9                                                                               | 2.0                                                                               | 2.6                                                                               | 4.5                                                                               | 5.7                                                                               | 13.6                                                                              | 6.8                                                                                 | 2.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 8.9                                                                               | 0.0                                                                               | 0.2                                                                               | 0.0                                                                               | 2.5                                                                               | 0.0                                                                                 | 0.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           | 11.0                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Notes                        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Queuing and Blocking Report  
Portola Avenue/Frank Sinatra Drive Residential Traffic Analysis

EAPC (2024) AM Peak Hour

Intersection: 2: Portola Av. & Central Access

| Movement              | EB  | NB  |
|-----------------------|-----|-----|
| Directions Served     | R   | L   |
| Maximum Queue (ft)    | 26  | 26  |
| Average Queue (ft)    | 15  | 7   |
| 95th Queue (ft)       | 34  | 30  |
| Link Distance (ft)    | 204 |     |
| Upstream Blk Time (%) |     |     |
| Queuing Penalty (veh) |     |     |
| Storage Bay Dist (ft) |     | 220 |
| Storage Blk Time (%)  |     |     |
| Queuing Penalty (veh) |     |     |

Intersection: 3: North Access/Shepherd Ln. & Frank Sinatra Dr.

| Movement              | EB  | EB   | NB  | SB  |
|-----------------------|-----|------|-----|-----|
| Directions Served     | L   | T    | R   | R   |
| Maximum Queue (ft)    | 34  | 15   | 45  | 48  |
| Average Queue (ft)    | 13  | 3    | 30  | 28  |
| 95th Queue (ft)       | 40  | 27   | 53  | 54  |
| Link Distance (ft)    |     | 5276 | 192 | 744 |
| Upstream Blk Time (%) |     |      |     |     |
| Queuing Penalty (veh) |     |      |     |     |
| Storage Bay Dist (ft) | 140 |      |     |     |
| Storage Blk Time (%)  |     |      |     |     |
| Queuing Penalty (veh) |     |      |     |     |

Intersection: 10: Portola Av. & South Access

| Movement              | EB  |
|-----------------------|-----|
| Directions Served     | R   |
| Maximum Queue (ft)    | 30  |
| Average Queue (ft)    | 10  |
| 95th Queue (ft)       | 33  |
| Link Distance (ft)    | 198 |
| Upstream Blk Time (%) |     |
| Queuing Penalty (veh) |     |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

Zone Summary

Zone wide Queuing Penalty: 0

Queuing and Blocking Report  
Portola Avenue/Frank Sinatra Drive Residential Traffic Analysis

EAPC (2024) AM Peak Hour

Intersection: 4: Portola Av. & Frank Sinatra Dr.

| Movement              | EB  | EB  | EB  | EB  | WB  | WB   | WB   | WB  | NB  | NB  | NB  | NB  |
|-----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|
| Directions Served     | L   | T   | T   | R   | L   | T    | T    | R   | L   | T   | T   | T   |
| Maximum Queue (ft)    | 84  | 124 | 119 | 42  | 180 | 176  | 186  | 25  | 160 | 111 | 87  | 88  |
| Average Queue (ft)    | 59  | 88  | 88  | 31  | 106 | 134  | 144  | 9   | 117 | 64  | 52  | 52  |
| 95th Queue (ft)       | 102 | 132 | 135 | 49  | 198 | 192  | 205  | 28  | 221 | 154 | 98  | 103 |
| Link Distance (ft)    |     | 605 | 605 |     |     | 4365 | 4365 |     |     | 419 | 419 | 419 |
| Upstream Blk Time (%) |     |     |     |     |     |      |      |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |      |      |     |     |     |     |     |
| Storage Bay Dist (ft) | 120 |     |     | 230 | 140 |      |      | 100 | 260 |     |     |     |
| Storage Blk Time (%)  | 1   | 1   |     |     | 8   | 7    | 25   |     | 3   |     |     | 12  |
| Queuing Penalty (veh) | 1   | 1   |     |     | 30  | 12   | 8    |     | 6   |     |     | 10  |

Intersection: 4: Portola Av. & Frank Sinatra Dr.

| Movement              | NB | SB  | SB   | SB   | SB   |
|-----------------------|----|-----|------|------|------|
| Directions Served     | R  | L   | T    | T    | TR   |
| Maximum Queue (ft)    | 38 | 74  | 115  | 102  | 60   |
| Average Queue (ft)    | 18 | 44  | 95   | 60   | 26   |
| 95th Queue (ft)       | 43 | 84  | 128  | 116  | 65   |
| Link Distance (ft)    |    |     | 1095 | 1095 | 1095 |
| Upstream Blk Time (%) |    |     |      |      |      |
| Queuing Penalty (veh) |    |     |      |      |      |
| Storage Bay Dist (ft) | 50 | 180 |      |      |      |
| Storage Blk Time (%)  | 1  |     |      |      |      |
| Queuing Penalty (veh) | 1  |     |      |      |      |

Queuing and Blocking Report  
Portola Avenue/Frank Sinatra Drive Residential Traffic Analysis

EAPC (2024) AM Peak Hour

Intersection: 6: Portola Av. & Retreat Circ. (N)

| Movement              | WB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|
| Directions Served     | R   | L   | T   | T   |
| Maximum Queue (ft)    | 20  | 17  | 14  | 6   |
| Average Queue (ft)    | 8   | 3   | 3   | 1   |
| 95th Queue (ft)       | 24  | 23  | 26  | 11  |
| Link Distance (ft)    | 143 |     | 190 | 190 |
| Upstream Blk Time (%) |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |
| Storage Bay Dist (ft) |     | 150 |     |     |
| Storage Blk Time (%)  |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |

Queuing and Blocking Report  
Portola Avenue/Frank Sinatra Drive Residential Traffic Analysis

EAPC (2024) PM Peak Hour

Intersection: 2: Portola Av. & Central Access

| Movement              | EB  | NB  |
|-----------------------|-----|-----|
| Directions Served     | R   | L   |
| Maximum Queue (ft)    | 22  | 31  |
| Average Queue (ft)    | 13  | 13  |
| 95th Queue (ft)       | 31  | 38  |
| Link Distance (ft)    | 204 |     |
| Upstream Blk Time (%) |     |     |
| Queuing Penalty (veh) |     |     |
| Storage Bay Dist (ft) |     | 220 |
| Storage Blk Time (%)  |     |     |
| Queuing Penalty (veh) |     |     |

Intersection: 3: North Access/Shepherd Ln. & Frank Sinatra Dr.

| Movement              | EB  | EB   | EB   | WB  | WB  | WB | NB  | SB  |
|-----------------------|-----|------|------|-----|-----|----|-----|-----|
| Directions Served     | L   | T    | T    | T   | T   | R  | R   | R   |
| Maximum Queue (ft)    | 27  | 16   | 31   | 16  | 16  | 5  | 57  | 28  |
| Average Queue (ft)    | 10  | 3    | 8    | 3   | 3   | 2  | 34  | 14  |
| 95th Queue (ft)       | 31  | 22   | 34   | 18  | 22  | 11 | 70  | 34  |
| Link Distance (ft)    |     | 5276 | 5276 | 605 | 605 |    | 192 | 744 |
| Upstream Blk Time (%) |     |      |      |     |     |    |     |     |
| Queuing Penalty (veh) |     |      |      |     |     |    |     |     |
| Storage Bay Dist (ft) | 140 |      |      |     |     | 50 |     |     |
| Storage Blk Time (%)  |     |      |      |     | 0   |    |     |     |
| Queuing Penalty (veh) |     |      |      |     | 0   |    |     |     |

Intersection: 10: Portola Av. & South Access

| Movement              | EB  |
|-----------------------|-----|
| Directions Served     | R   |
| Maximum Queue (ft)    | 24  |
| Average Queue (ft)    | 7   |
| 95th Queue (ft)       | 27  |
| Link Distance (ft)    | 198 |
| Upstream Blk Time (%) |     |
| Queuing Penalty (veh) |     |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

Zone Summary

Zone wide Queuing Penalty: 0

Queuing and Blocking Report  
Portola Avenue/Frank Sinatra Drive Residential Traffic Analysis

EAPC (2024) PM Peak Hour

Intersection: 4: Portola Av. & Frank Sinatra Dr.

| Movement              | EB  | EB  | EB  | EB  | WB  | WB   | WB   | WB  | NB  | NB  | NB  | NB  |
|-----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|
| Directions Served     | L   | T   | T   | R   | L   | T    | T    | R   | L   | T   | T   | T   |
| Maximum Queue (ft)    | 106 | 163 | 162 | 59  | 91  | 102  | 120  | 23  | 158 | 115 | 109 | 111 |
| Average Queue (ft)    | 74  | 127 | 132 | 36  | 71  | 66   | 78   | 10  | 118 | 67  | 72  | 77  |
| 95th Queue (ft)       | 121 | 180 | 177 | 62  | 100 | 117  | 139  | 28  | 201 | 139 | 117 | 133 |
| Link Distance (ft)    |     | 605 | 605 |     |     | 4365 | 4365 |     |     | 419 | 419 | 419 |
| Upstream Blk Time (%) |     |     |     |     |     |      |      |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |      |      |     |     |     |     |     |
| Storage Bay Dist (ft) | 120 |     |     | 230 | 140 |      |      | 100 | 260 |     |     |     |
| Storage Blk Time (%)  | 1   | 11  |     |     |     | 1    | 5    |     |     |     |     | 18  |
| Queuing Penalty (veh) | 2   | 11  |     |     |     | 1    | 2    |     |     |     |     | 20  |

Intersection: 4: Portola Av. & Frank Sinatra Dr.

| Movement              | NB | SB  | SB   | SB   | SB   |
|-----------------------|----|-----|------|------|------|
| Directions Served     | R  | L   | T    | T    | TR   |
| Maximum Queue (ft)    | 66 | 76  | 120  | 102  | 20   |
| Average Queue (ft)    | 30 | 42  | 91   | 66   | 10   |
| 95th Queue (ft)       | 74 | 82  | 141  | 118  | 26   |
| Link Distance (ft)    |    |     | 1095 | 1095 | 1095 |
| Upstream Blk Time (%) |    |     |      |      |      |
| Queuing Penalty (veh) |    |     |      |      |      |
| Storage Bay Dist (ft) | 50 | 180 |      |      |      |
| Storage Blk Time (%)  | 3  |     |      |      |      |
| Queuing Penalty (veh) | 5  |     |      |      |      |

Queuing and Blocking Report  
Portola Avenue/Frank Sinatra Drive Residential Traffic Analysis

EAPC (2024) PM Peak Hour

Intersection: 6: Portola Av. & Retreat Circ. (N)

| Movement              | WB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|
| Directions Served     | R   | T   | L   | T   |
| Maximum Queue (ft)    | 24  | 4   | 22  | 6   |
| Average Queue (ft)    | 10  | 1   | 11  | 1   |
| 95th Queue (ft)       | 29  | 8   | 37  | 11  |
| Link Distance (ft)    | 143 | 221 |     | 190 |
| Upstream Blk Time (%) |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 150 |     |
| Storage Blk Time (%)  |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |