

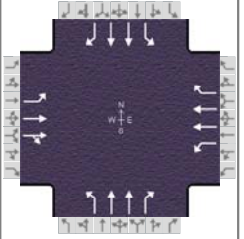
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                         |
|---------------------|-------------------------|
| Agency              | Bohannon Huston         |
| Analyst             | CDV                     |
| Jurisdiction        |                         |
| Urban Street        |                         |
| Intersection        | Atrisco Vista @ Central |
| Project Description | AM 2030 Build           |

## Intersection Information

|                 |                                    |
|-----------------|------------------------------------|
| Duration, h     | 0.250                              |
| Area Type       | Other                              |
| PHF             | 0.92                               |
| Analysis Period | 1> 7:00                            |
| File Name       | Atrisco Vista_Central_2030B_AM.xus |



## Demand Information

|                       | EB |    |    | WB |    |     | NB |     |     | SB  |     |    |
|-----------------------|----|----|----|----|----|-----|----|-----|-----|-----|-----|----|
| Approach Movement     | L  | T  | R  | L  | T  | R   | L  | T   | R   | L   | T   | R  |
| Demand ( $v$ ), veh/h | 84 | 23 | 10 | 34 | 44 | 344 | 23 | 312 | 132 | 348 | 224 | 87 |

## Signal Information

|               |       |                 |     |        |     |     |      |     |     |      |  |  |  |
|---------------|-------|-----------------|-----|--------|-----|-----|------|-----|-----|------|--|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |     |     |      |     |     |      |  |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |     |      |     |     |      |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 4.3 | 7.1 | 38.4 | 3.4 | 3.2 | 28.2 |  |  |  |
|               |       |                 |     | Yellow | 4.0 | 4.0 | 4.5  | 4.0 | 0.0 | 4.0  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0 | 1.0  | 1.0 | 0.0 | 1.0  |  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 3    | 8    | 7    | 4    | 1    | 6    | 5    | 2    |
| Case Number                       | 1.1  | 4.0  | 1.1  | 3.0  | 1.1  | 3.0  | 1.1  | 3.0  |
| Phase Duration, s                 | 11.6 | 36.4 | 8.4  | 33.2 | 9.3  | 43.9 | 21.3 | 55.9 |
| Change Period, ( $Y+R_c$ ), s     | 5.0  | 5.5  | 5.0  | 5.5  | 5.0  | 5.5  | 5.0  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 3.0  | 3.2  | 3.0  | 3.2  | 3.0  | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 7.0  | 2.8  | 3.6  | 26.9 | 2.9  |      | 16.1 |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 1.0  | 0.0  | 0.8  | 0.0  | 0.0  | 0.3  | 0.0  |
| Phase Call Probability            | 0.94 | 1.00 | 0.68 | 1.00 | 0.53 |      | 1.00 |      |
| Max Out Probability               | 1.00 | 0.00 | 0.01 | 0.02 | 0.00 |      | 0.93 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |       |     | NB    |       |       | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T     | R   | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 3     | 8     | 18    | 7     | 4     | 14  | 1     | 6     | 16    | 5     | 2     | 12    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 91    | 18    | 18    | 37    | 48    | 374 | 25    | 339   | 143   | 378   | 243   | 95    |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1457  | 1900  | 1712  | 1810  | 1513  |     | 1810  | 1766  | 1610  | 1810  | 1625  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 5.0   | 0.8   | 0.8   | 1.6   | 1.3   |     | 0.9   | 7.6   | 7.0   | 14.1  | 4.8   | 3.7   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 5.0   | 0.8   | 0.8   | 1.6   | 1.3   |     | 0.9   | 7.6   | 7.0   | 14.1  | 4.8   | 3.7   |
| Green Ratio ( $g/C$ )                             | 0.31  | 0.28  | 0.28  | 0.28  | 0.25  |     | 0.39  | 0.35  | 0.35  | 0.52  | 0.46  | 0.46  |
| Capacity ( $c$ ), veh/h                           | 419   | 534   | 481   | 472   | 761   |     | 538   | 1232  | 561   | 630   | 1490  | 738   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.218 | 0.034 | 0.037 | 0.078 | 0.063 |     | 0.046 | 0.275 | 0.256 | 0.600 | 0.163 | 0.128 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 91.8  | 15.1  | 15    | 31.3  | 24.8  |     | 17.3  | 145.4 | 123.4 | 233.6 | 87.3  | 61.9  |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 3.1   | 0.6   | 0.6   | 1.3   | 0.8   |     | 0.7   | 5.7   | 4.9   | 9.3   | 3.2   | 2.5   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.37  | 0.02  | 0.02  | 0.13  | 0.02  |     | 0.07  | 0.15  | 0.95  | 0.78  | 0.17  | 0.28  |
| Uniform Delay ( $d_1$ ), s/veh                    | 27.6  | 28.7  | 28.7  | 28.9  | 31.3  |     | 20.9  | 25.8  | 25.6  | 17.0  | 17.4  | 17.1  |
| Incremental Delay ( $d_2$ ), s/veh                | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.6   | 1.1   | 0.8   | 0.2   | 0.4   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 27.7  | 28.7  | 28.7  | 28.9  | 31.3  | 0.0 | 20.9  | 26.4  | 26.7  | 17.8  | 17.7  | 17.5  |
| Level of Service (LOS)                            | C     | C     | C     | C     | C     | A   | C     | C     | C     | B     | B     | B     |
| Approach Delay, s/veh / LOS                       | 28.0  |       | C     | 5.6   |       | A   | 26.2  |       | C     | 17.7  |       | B     |
| Intersection Delay, s/veh / LOS                   | 17.7  |       |       |       |       |     | B     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.44 |  | B | 2.45 |  | B | 2.44 |  | B | 2.27 |  | B |
| Bicycle LOS Score / LOS    | 0.59 |  | A | 0.87 |  | A | 0.91 |  | A | 1.08 |  | A |

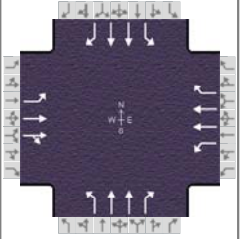
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                         |
|---------------------|-------------------------|
| Agency              | Bohannon Huston         |
| Analyst             | CDV                     |
| Jurisdiction        |                         |
| Urban Street        |                         |
| Intersection        | Atrisco Vista @ Central |
| Project Description | PM 2030 Build           |

## Intersection Information

|                 |                                    |
|-----------------|------------------------------------|
| Duration, h     | 0.250                              |
| Area Type       | Other                              |
| PHF             | 0.92                               |
| Analysis Period | 1> 7:00                            |
| File Name       | Atrisco Vista_Central_2030B_PM.xus |



## Demand Information

|                     | EB |    |    | WB  |    |     | NB |     |     | SB  |     |    |
|---------------------|----|----|----|-----|----|-----|----|-----|-----|-----|-----|----|
| Approach Movement   | L  | T  | R  | L   | T  | R   | L  | T   | R   | L   | T   | R  |
| Demand ( v ), veh/h | 73 | 35 | 19 | 107 | 25 | 549 | 9  | 218 | 102 | 495 | 251 | 49 |

## Signal Information

|               |       |                 |     |        |     |     |      |     |     |      |  |  |  |
|---------------|-------|-----------------|-----|--------|-----|-----|------|-----|-----|------|--|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |     |     |      |     |     |      |  |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |     |      |     |     |      |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 2.1 | 2.9 | 35.5 | 5.1 | 1.3 | 37.1 |  |  |  |
|               |       |                 |     | Yellow | 4.0 | 4.0 | 4.5  | 4.0 | 0.0 | 4.5  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0 | 1.0  | 1.0 | 0.0 | 1.0  |  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 3    | 8    | 7    | 4    | 1    | 6    | 5    | 2    |
| Case Number                                | 1.1  | 4.0  | 1.1  | 3.0  | 1.1  | 3.0  | 1.1  | 3.0  |
| Phase Duration, s                          | 10.1 | 42.6 | 11.4 | 43.9 | 7.1  | 41.0 | 15.0 | 48.9 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 5.0  | 5.5  | 5.0  | 5.5  | 5.0  | 5.5  | 5.0  | 5.5  |
| Max Allow Headway ( MAH ), s               | 3.0  | 3.2  | 3.0  | 3.2  | 3.0  | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 5.6  | 3.3  | 6.6  | 40.4 | 2.4  |      | 12.0 |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.0  | 1.6  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     | 0.91 | 1.00 | 0.97 | 1.00 | 0.26 |      | 1.00 |      |
| Max Out Probability                        | 0.55 | 0.00 | 1.00 | 1.00 | 0.00 |      | 1.00 |      |

## Movement Group Results

|                                                  | EB    |       |       | WB    |       |     | NB    |       |       | SB    |       |       |
|--------------------------------------------------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|
| Approach Movement                                | L     | T     | R     | L     | T     | R   | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                | 3     | 8     | 18    | 7     | 4     | 14  | 1     | 6     | 16    | 5     | 2     | 12    |
| Adjusted Flow Rate ( v ), veh/h                  | 79    | 30    | 29    | 116   | 27    | 597 | 10    | 237   | 111   | 538   | 273   | 53    |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1584  | 1900  | 1685  | 1810  | 1583  |     | 1810  | 1766  | 1610  | 1810  | 1597  | 1610  |
| Queue Service Time ( g <sub>s</sub> ), s         | 3.6   | 1.2   | 1.3   | 4.6   | 0.6   |     | 0.4   | 5.4   | 5.5   | 10.0  | 6.2   | 2.3   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 3.6   | 1.2   | 1.3   | 4.6   | 0.6   |     | 0.4   | 5.4   | 5.5   | 10.0  | 6.2   | 2.3   |
| Green Ratio ( g/C )                              | 0.38  | 0.34  | 0.34  | 0.40  | 0.35  |     | 0.34  | 0.32  | 0.32  | 0.43  | 0.39  | 0.39  |
| Capacity ( c ), veh/h                            | 539   | 640   | 568   | 615   | 1105  |     | 459   | 1139  | 519   | 548   | 1261  | 636   |
| Volume-to-Capacity Ratio ( X )                   | 0.147 | 0.046 | 0.051 | 0.189 | 0.025 |     | 0.021 | 0.208 | 0.213 | 0.982 | 0.216 | 0.084 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 64.9  | 22.7  | 22.4  | 83.6  | 11.4  |     | 7.4   | 103.4 | 97.8  | 515.5 | 115.8 | 39    |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 2.3   | 0.9   | 0.9   | 3.3   | 0.4   |     | 0.3   | 4.0   | 3.9   | 20.6  | 4.1   | 1.6   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.26  | 0.02  | 0.02  | 0.33  | 0.01  |     | 0.03  | 0.10  | 0.75  | 1.72  | 0.23  | 0.18  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 22.0  | 24.6  | 24.6  | 21.5  | 23.5  |     | 24.0  | 27.1  | 27.1  | 33.1  | 22.0  | 20.8  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 0.0   | 0.0   | 0.0   | 0.1   | 0.0   |     | 0.0   | 0.4   | 0.9   | 33.5  | 0.4   | 0.3   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 22.1  | 24.6  | 24.6  | 21.5  | 23.5  | 0.0 | 24.0  | 27.5  | 28.0  | 66.6  | 22.4  | 21.1  |
| Level of Service ( LOS )                         | C     | C     | C     | C     | C     | A   | C     | C     | C     | E     | C     | C     |
| Approach Delay, s/veh / LOS                      | 23.1  |       | C     | 4.2   |       | A   | 27.6  |       | C     | 49.8  |       | D     |
| Intersection Delay, s/veh / LOS                  | 28.2  |       |       |       |       |     | C     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.44 |  | B | 2.44 |  | B | 2.44 |  | B | 2.28 |  | B |
| Bicycle LOS Score / LOS    | 0.60 |  | A | 1.10 |  | A | 0.78 |  | A | 1.20 |  | A |

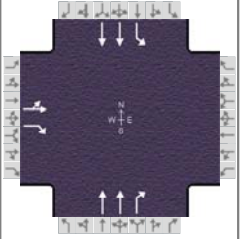
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                         |
|---------------------|-------------------------|
| Agency              | Bohannon Huston         |
| Analyst             | CDV                     |
| Jurisdiction        |                         |
| Urban Street        |                         |
| Intersection        | Atrisco Vista @ EB I-40 |
| Project Description | AM 2030 Build           |

## Intersection Information

|                 |                                   |
|-----------------|-----------------------------------|
| Duration, h     | 0.250                             |
| Area Type       | Other                             |
| PHF             | 0.92                              |
| Analysis Period | 1> 7:00                           |
| File Name       | Atrisco Vista_EB I40_2030B_AM.xus |



## Demand Information

|                     | EB |   |    | WB |   |   | NB |     |     | SB   |     |   |
|---------------------|----|---|----|----|---|---|----|-----|-----|------|-----|---|
| Approach Movement   | L  | T | R  | L  | T | R | L  | T   | R   | L    | T   | R |
| Demand ( v ), veh/h | 21 | 0 | 64 |    |   |   |    | 381 | 365 | 1041 | 587 |   |

## Signal Information

|               |       |                 |     |        |      |      |     |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|------|------|-----|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |      |      |     |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |      |     |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 52.7 | 36.0 | 6.3 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0  | 4.5  | 4.5 | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 0.0  | 1.0  | 1.0 | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT | NBL | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|------|-----|-----|-----|------|------|------|
| Assigned Phase                             |     | 8    |     |     |     | 6    | 5    | 2    |
| Case Number                                |     | 11.0 |     |     |     | 7.3  | 1.0  | 4.0  |
| Phase Duration, s                          |     | 11.8 |     |     |     | 41.5 | 56.7 | 98.2 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     |     |     | 5.5  | 4.0  | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     |     |     | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 6.7  |     |     |     |      | 50.4 |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.0  |     |     |     | 0.0  | 2.3  | 0.0  |
| Phase Call Probability                     |     | 0.94 |     |     |     |      | 1.00 |      |
| Max Out Probability                        |     | 1.00 |     |     |     |      | 0.24 |      |

## Movement Group Results

|                                                  | EB   |       |       | WB  |   |   | NB    |       |   | SB    |       |   |
|--------------------------------------------------|------|-------|-------|-----|---|---|-------|-------|---|-------|-------|---|
| Approach Movement                                | L    | T     | R     | L   | T | R | L     | T     | R | L     | T     | R |
| Assigned Movement                                | 3    | 8     | 18    |     |   |   | 6     | 16    |   | 5     | 2     |   |
| Adjusted Flow Rate ( v ), veh/h                  |      | 23    | 70    |     |   |   | 414   | 397   |   | 1132  | 638   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |      | 1810  | 1610  |     |   |   | 1597  | 1610  |   | 1810  | 1668  |   |
| Queue Service Time ( g <sub>s</sub> ), s         |      | 1.3   | 4.7   |     |   |   | 11.0  | 24.2  |   | 48.4  | 4.1   |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |      | 1.3   | 4.7   |     |   |   | 11.0  | 24.2  |   | 48.4  | 4.1   |   |
| Green Ratio ( g/C )                              |      | 0.06  | 0.06  |     |   |   | 0.33  | 0.33  |   | 0.83  | 0.84  |   |
| Capacity ( c ), veh/h                            |      | 104   | 92    |     |   |   | 1047  | 528   |   | 1157  | 2810  |   |
| Volume-to-Capacity Ratio ( X )                   |      | 0.220 | 0.753 |     |   |   | 0.396 | 0.752 |   | 0.978 | 0.227 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |      | 26.8  | 87.8  |     |   |   | 211.7 | 390.1 |   | 674.8 | 27.3  |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |      | 1.1   | 3.5   |     |   |   | 7.6   | 15.6  |   | 27.0  | 1.0   |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |      | 0.00  | 0.29  |     |   |   | 0.41  | 0.75  |   | 2.25  | 0.05  |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |      | 49.5  | 51.1  |     |   |   | 28.6  | 33.0  |   | 13.9  | 1.7   |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |      | 0.4   | 4.6   |     |   |   | 1.1   | 9.5   |   | 19.0  | 0.2   |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |      | 0.0   | 0.0   |     |   |   | 0.0   | 0.0   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                       |      | 49.9  | 55.7  |     |   |   | 29.7  | 42.5  |   | 32.8  | 1.9   |   |
| Level of Service ( LOS )                         |      | D     | E     |     |   |   | C     | D     |   | C     | A     |   |
| Approach Delay, s/veh / LOS                      | 54.2 |       | D     | 0.0 |   |   | 35.9  |       | D | 21.7  |       | C |
| Intersection Delay, s/veh / LOS                  | 27.1 |       |       |     |   |   | C     |       |   |       |       |   |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 1.41 |  | A | 1.58 |  | B |
| Bicycle LOS Score / LOS    | 0.64 |  | A |      |  |   | 1.16 |  | A | 1.95 |  | B |

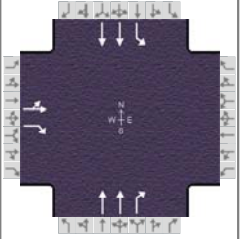
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                         |
|---------------------|-------------------------|
| Agency              | Bohannon Huston         |
| Analyst             | CDV                     |
| Jurisdiction        |                         |
| Urban Street        |                         |
| Intersection        | Atrisco Vista @ EB I-40 |
| Project Description | PM 2030 Build           |

## Intersection Information

|                 |                                   |
|-----------------|-----------------------------------|
| Duration, h     | 0.250                             |
| Area Type       | Other                             |
| PHF             | 0.92                              |
| Analysis Period | 1> 16:00                          |
| File Name       | Atrisco Vista_EB I40_2030B_PM.xus |



## Demand Information

|                     | EB |   |     | WB |   |   | NB |     |     | SB  |     |   |
|---------------------|----|---|-----|----|---|---|----|-----|-----|-----|-----|---|
| Approach Movement   | L  | T | R   | L  | T | R | L  | T   | R   | L   | T   | R |
| Demand ( v ), veh/h | 87 | 0 | 158 |    |   |   |    | 608 | 212 | 890 | 622 |   |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 110.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT | NBL | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|------|-----|-----|-----|------|------|------|
| Assigned Phase                             |     | 8    |     |     |     | 6    | 5    | 2    |
| Case Number                                |     | 11.0 |     |     |     | 7.3  | 1.0  | 4.0  |
| Phase Duration, s                          |     | 19.1 |     |     |     | 33.8 | 57.2 | 90.9 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     |     |     | 5.5  | 4.0  | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     |     |     | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 13.5 |     |     |     |      | 51.9 |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.1  |     |     |     | 0.0  | 1.3  | 0.0  |
| Phase Call Probability                     |     | 1.00 |     |     |     |      | 1.00 |      |
| Max Out Probability                        |     | 1.00 |     |     |     |      | 0.52 |      |

## Movement Group Results

|                                                  | EB   |       |       | WB  |   |   | NB    |       |   | SB    |       |   |
|--------------------------------------------------|------|-------|-------|-----|---|---|-------|-------|---|-------|-------|---|
| Approach Movement                                | L    | T     | R     | L   | T | R | L     | T     | R | L     | T     | R |
| Assigned Movement                                | 3    | 8     | 18    |     |   |   | 6     | 16    |   | 5     | 2     |   |
| Adjusted Flow Rate ( v ), veh/h                  |      | 95    | 172   |     |   |   | 661   | 230   |   | 967   | 676   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |      | 1810  | 1610  |     |   |   | 1611  | 1610  |   | 1810  | 1682  |   |
| Queue Service Time ( g <sub>s</sub> ), s         |      | 5.3   | 11.5  |     |   |   | 21.1  | 13.6  |   | 49.9  | 6.2   |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |      | 5.3   | 11.5  |     |   |   | 21.1  | 13.6  |   | 49.9  | 6.2   |   |
| Green Ratio ( g/C )                              |      | 0.12  | 0.12  |     |   |   | 0.26  | 0.26  |   | 0.76  | 0.78  |   |
| Capacity ( c ), veh/h                            |      | 223   | 199   |     |   |   | 830   | 415   |   | 992   | 2612  |   |
| Volume-to-Capacity Ratio ( X )                   |      | 0.424 | 0.865 |     |   |   | 0.796 | 0.556 |   | 0.975 | 0.259 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |      | 105.7 | 247.5 |     |   |   | 381.6 | 242.2 |   | 891.4 | 70.8  |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |      | 4.2   | 9.9   |     |   |   | 13.7  | 9.7   |   | 35.7  | 2.6   |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |      | 0.00  | 0.83  |     |   |   | 0.73  | 0.47  |   | 2.97  | 0.14  |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |      | 44.6  | 47.3  |     |   |   | 38.1  | 35.4  |   | 21.1  | 3.4   |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |      | 0.5   | 26.2  |     |   |   | 7.8   | 5.3   |   | 21.0  | 0.2   |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |      | 0.0   | 0.0   |     |   |   | 0.0   | 0.0   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                       |      | 45.1  | 73.6  |     |   |   | 45.9  | 40.7  |   | 42.1  | 3.7   |   |
| Level of Service ( LOS )                         |      | D     | E     |     |   |   | D     | D     |   | D     | A     |   |
| Approach Delay, s/veh / LOS                      | 63.4 | E     |       | 0.0 |   |   | 44.6  | D     |   | 26.3  | C     |   |
| Intersection Delay, s/veh / LOS                  | 35.6 |       |       |     |   |   | D     |       |   |       |       |   |

## Multimodal Results

|                            | EB   |   |  | WB   |   |  | NB   |   |  | SB   |   |  |
|----------------------------|------|---|--|------|---|--|------|---|--|------|---|--|
| Pedestrian LOS Score / LOS | 2.32 | B |  | 2.32 | B |  | 1.42 | A |  | 1.61 | B |  |
| Bicycle LOS Score / LOS    | 0.93 | A |  |      |   |  | 1.22 | A |  | 1.84 | B |  |

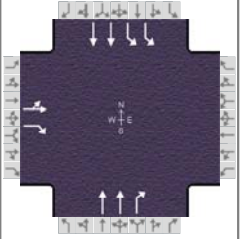
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                           |
|---------------------|---------------------------|
| Agency              | Bohannon Huston           |
| Analyst             | CDV                       |
| Jurisdiction        |                           |
| Urban Street        |                           |
| Intersection        | Atrisco Vista @ EB I-40   |
| Project Description | AM 2030 Build w/ dual SBL |

## Intersection Information

|                 |                                              |
|-----------------|----------------------------------------------|
| Duration, h     | 0.250                                        |
| Area Type       | Other                                        |
| PHF             | 0.92                                         |
| Analysis Period | 1 > 7:00                                     |
| File Name       | Atrisco Vista_EB I40_2030B_AM (dual SBL).xus |



## Demand Information

|                     | EB |   |    | WB |   |   | NB |     |     | SB   |     |   |
|---------------------|----|---|----|----|---|---|----|-----|-----|------|-----|---|
| Approach Movement   | L  | T | R  | L  | T | R | L  | T   | R   | L    | T   | R |
| Demand ( v ), veh/h | 21 | 0 | 64 |    |   |   |    | 381 | 365 | 1041 | 587 |   |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 110.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT | NBL | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|------|-----|-----|-----|------|------|------|
| Assigned Phase                             |     | 8    |     |     |     | 6    | 5    | 2    |
| Case Number                                |     | 11.0 |     |     |     | 7.3  | 1.0  | 4.0  |
| Phase Duration, s                          |     | 11.8 |     |     |     | 79.9 | 18.2 | 98.2 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     |     |     | 5.5  | 4.0  | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     |     |     | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 6.7  |     |     |     |      | 11.2 |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.0  |     |     |     | 0.0  | 3.1  | 0.0  |
| Phase Call Probability                     |     | 0.94 |     |     |     |      | 1.00 |      |
| Max Out Probability                        |     | 1.00 |     |     |     |      | 0.00 |      |

## Movement Group Results

|                                                  | EB   |       |       | WB  |   |   | NB    |       |   | SB    |       |   |
|--------------------------------------------------|------|-------|-------|-----|---|---|-------|-------|---|-------|-------|---|
| Approach Movement                                | L    | T     | R     | L   | T | R | L     | T     | R | L     | T     | R |
| Assigned Movement                                | 3    | 8     | 18    |     |   |   | 6     | 16    |   | 5     | 2     |   |
| Adjusted Flow Rate ( v ), veh/h                  |      | 23    | 70    |     |   |   | 414   | 397   |   | 1132  | 638   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |      | 1810  | 1610  |     |   |   | 1597  | 1610  |   | 1757  | 1668  |   |
| Queue Service Time ( g <sub>s</sub> ), s         |      | 1.3   | 4.7   |     |   |   | 5.3   | 11.6  |   | 9.2   | 4.1   |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |      | 1.3   | 4.7   |     |   |   | 5.3   | 11.6  |   | 9.2   | 4.1   |   |
| Green Ratio ( g/C )                              |      | 0.06  | 0.06  |     |   |   | 0.68  | 0.68  |   | 0.82  | 0.84  |   |
| Capacity ( c ), veh/h                            |      | 104   | 92    |     |   |   | 2162  | 1090  |   | 1827  | 2810  |   |
| Volume-to-Capacity Ratio ( X )                   |      | 0.220 | 0.753 |     |   |   | 0.192 | 0.364 |   | 0.619 | 0.227 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |      | 26.8  | 87.8  |     |   |   | 78.4  | 162.1 |   | 67.9  | 27.3  |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |      | 1.1   | 3.5   |     |   |   | 2.8   | 6.5   |   | 2.7   | 1.0   |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |      | 0.00  | 0.29  |     |   |   | 0.15  | 0.31  |   | 0.23  | 0.05  |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |      | 49.5  | 51.1  |     |   |   | 6.6   | 7.6   |   | 3.1   | 1.7   |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |      | 0.4   | 4.6   |     |   |   | 0.2   | 0.9   |   | 0.1   | 0.2   |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |      | 0.0   | 0.0   |     |   |   | 0.0   | 0.0   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                       |      | 49.9  | 55.7  |     |   |   | 6.8   | 8.6   |   | 3.2   | 1.9   |   |
| Level of Service ( LOS )                         |      | D     | E     |     |   |   | A     | A     |   | A     | A     |   |
| Approach Delay, s/veh / LOS                      | 54.2 |       | D     | 0.0 |   |   | 7.7   |       | A | 2.7   |       | A |
| Intersection Delay, s/veh / LOS                  | 6.0  |       |       |     |   |   | A     |       |   |       |       |   |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.47 |  | B | 1.64 |  | B | 1.58 |  | B |
| Bicycle LOS Score / LOS    | 0.64 |  | A |      |  |   | 1.16 |  | A | 1.95 |  | B |

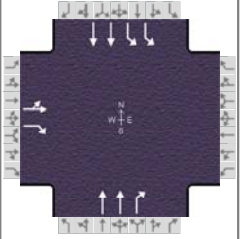
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                           |
|---------------------|---------------------------|
| Agency              | Bohannon Huston           |
| Analyst             | CDV                       |
| Jurisdiction        |                           |
| Urban Street        |                           |
| Intersection        | Atrisco Vista @ EB I-40   |
| Project Description | PM 2030 Build w/ dual SBL |

## Intersection Information

|                 |                                              |
|-----------------|----------------------------------------------|
| Duration, h     | 0.250                                        |
| Area Type       | Other                                        |
| PHF             | 0.92                                         |
| Analysis Period | 1> 16:00                                     |
| File Name       | Atrisco Vista_EB I40_2030B_PM (dual SBL).xus |



## Demand Information

|                     | EB |   |     | WB |   |   | NB |     |     | SB  |     |   |
|---------------------|----|---|-----|----|---|---|----|-----|-----|-----|-----|---|
| Approach Movement   | L  | T | R   | L  | T | R | L  | T   | R   | L   | T   | R |
| Demand ( v ), veh/h | 87 | 0 | 158 |    |   |   |    | 608 | 212 | 890 | 622 |   |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 110.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT | NBL | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|------|-----|-----|-----|------|------|------|
| Assigned Phase                             |     | 8    |     |     |     | 6    | 5    | 2    |
| Case Number                                |     | 11.0 |     |     |     | 7.3  | 1.0  | 4.0  |
| Phase Duration, s                          |     | 19.1 |     |     |     | 66.9 | 24.0 | 90.9 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     |     |     | 5.5  | 4.0  | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     |     |     | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 13.5 |     |     |     |      | 12.1 |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.1  |     |     |     | 0.0  | 2.5  | 0.0  |
| Phase Call Probability                     |     | 1.00 |     |     |     |      | 1.00 |      |
| Max Out Probability                        |     | 1.00 |     |     |     |      | 0.00 |      |

## Movement Group Results

|                                                  | EB   |       |       | WB  |   |   | NB    |       |       | SB    |   |   |
|--------------------------------------------------|------|-------|-------|-----|---|---|-------|-------|-------|-------|---|---|
| Approach Movement                                | L    | T     | R     | L   | T | R | L     | T     | R     | L     | T | R |
| Assigned Movement                                | 3    | 8     | 18    |     |   |   | 6     | 16    | 5     | 2     |   |   |
| Adjusted Flow Rate ( v ), veh/h                  |      | 95    | 172   |     |   |   | 661   | 230   | 967   | 676   |   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |      | 1810  | 1610  |     |   |   | 1611  | 1610  | 1757  | 1682  |   |   |
| Queue Service Time ( g <sub>s</sub> ), s         |      | 5.3   | 11.5  |     |   |   | 12.5  | 8.1   | 10.1  | 6.2   |   |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |      | 5.3   | 11.5  |     |   |   | 12.5  | 8.1   | 10.1  | 6.2   |   |   |
| Green Ratio ( g/C )                              |      | 0.12  | 0.12  |     |   |   | 0.56  | 0.56  | 0.76  | 0.78  |   |   |
| Capacity ( c ), veh/h                            |      | 223   | 199   |     |   |   | 1800  | 899   | 1468  | 2612  |   |   |
| Volume-to-Capacity Ratio ( X )                   |      | 0.424 | 0.865 |     |   |   | 0.367 | 0.256 | 0.659 | 0.259 |   |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |      | 105.7 | 247.5 |     |   |   | 213.1 | 127.9 | 114.8 | 70.8  |   |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |      | 4.2   | 9.9   |     |   |   | 7.7   | 5.1   | 4.6   | 2.6   |   |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |      | 0.00  | 0.83  |     |   |   | 0.41  | 0.25  | 0.38  | 0.14  |   |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |      | 44.6  | 47.3  |     |   |   | 13.5  | 12.5  | 6.9   | 3.4   |   |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |      | 0.5   | 26.2  |     |   |   | 0.6   | 0.7   | 0.2   | 0.2   |   |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |      | 0.0   | 0.0   |     |   |   | 0.0   | 0.0   | 0.0   | 0.0   |   |   |
| Control Delay ( d ), s/veh                       |      | 45.1  | 73.6  |     |   |   | 14.1  | 13.2  | 7.1   | 3.7   |   |   |
| Level of Service ( LOS )                         |      | D     | E     |     |   |   | B     | B     | A     | A     |   |   |
| Approach Delay, s/veh / LOS                      | 63.4 | E     |       | 0.0 |   |   | 13.8  | B     |       | 5.7   | A |   |
| Intersection Delay, s/veh / LOS                  | 13.8 |       |       |     |   |   | B     |       |       |       |   |   |

## Multimodal Results

|                            | EB   |   |  | WB   |   |  | NB   |   |  | SB   |   |  |
|----------------------------|------|---|--|------|---|--|------|---|--|------|---|--|
| Pedestrian LOS Score / LOS | 2.32 | B |  | 2.47 | B |  | 1.67 | B |  | 1.61 | B |  |
| Bicycle LOS Score / LOS    | 0.93 | A |  |      |   |  | 1.22 | A |  | 1.84 | B |  |

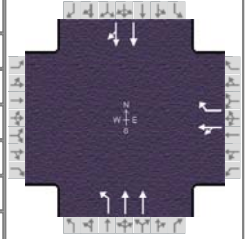
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                         |
|---------------------|-------------------------|
| Agency              | Bohannon Huston         |
| Analyst             | CDV                     |
| Jurisdiction        |                         |
| Urban Street        |                         |
| Intersection        | Atrisco Vista @ WB I-40 |
| Project Description | AM 2030 Build           |

## Intersection Information

|                 |                                   |
|-----------------|-----------------------------------|
| Duration, h     | 0.250                             |
| Area Type       | Other                             |
| PHF             | 0.92                              |
| Analysis Period | 1> 7:00                           |
| File Name       | Atrisco Vista_WB I40_2030B_AM.xus |



## Demand Information

|                     | EB |   |   | WB  |   |     | NB  |     |   | SB |      |    |
|---------------------|----|---|---|-----|---|-----|-----|-----|---|----|------|----|
| Approach Movement   | L  | T | R | L   | T | R   | L   | T   | R | L  | T    | R  |
| Demand ( v ), veh/h |    |   |   | 244 | 1 | 522 | 102 | 305 |   |    | 1419 | 53 |

## Signal Information

|               |       |                 |      |                                                                                    |     |     |     |
|---------------|-------|-----------------|------|------------------------------------------------------------------------------------|-----|-----|-----|
| Cycle, s      | 110.0 | Reference Phase | 2    |  |     |     |     |
| Offset, s     | 0     | Reference Point | End  |                                                                                    |     |     |     |
| Uncoordinated | No    | Simult. Gap E/W | On   |                                                                                    |     |     |     |
| Force Mode    | Fixed | Simult. Gap N/S | On   |                                                                                    |     |     |     |
| Green         | 5.8   | 53.7            | 37.0 | 0.0                                                                                | 0.0 | 0.0 | 0.0 |
| Yellow        | 4.0   | 4.5             | 4.0  | 0.0                                                                                | 0.0 | 0.0 | 0.0 |
| Red           | 0.0   | 1.0             | 0.0  | 0.0                                                                                | 0.0 | 0.0 | 0.0 |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|---------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                  |     |     |     | 4    | 1    | 6    |     | 2    |
| Case Number                     |     |     |     | 11.0 | 1.0  | 4.0  |     | 8.3  |
| Phase Duration, s               |     |     |     | 41.0 | 9.8  | 69.0 |     | 59.2 |
| Change Period, ( Y+R c ), s     |     |     |     | 4.0  | 4.0  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 3.2  | 3.0  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 39.0 | 5.2  |      |     |      |
| Green Extension Time ( g e ), s |     |     |     | 0.0  | 0.0  | 0.0  |     | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 | 0.97 |      |     |      |
| Max Out Probability             |     |     |     | 1.00 | 1.00 |      |     |      |

## Movement Group Results

|                                                 | EB  |   |   | WB    |        |       | NB    |   |   | SB    |       |   |
|-------------------------------------------------|-----|---|---|-------|--------|-------|-------|---|---|-------|-------|---|
| Approach Movement                               | L   | T | R | L     | T      | R     | L     | T | R | L     | T     | R |
| Assigned Movement                               |     |   |   | 7     | 4      | 14    | 1     | 6 |   | 2     | 12    |   |
| Adjusted Flow Rate ( v ), veh/h                 |     |   |   | 266   | 567    | 111   | 332   |   |   | 803   | 797   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |     |   |   | 1810  | 1309   | 1810  | 1611  |   |   | 1737  | 1715  |   |
| Queue Service Time ( g s ), s                   |     |   |   | 12.6  | 37.0   | 3.2   | 5.3   |   |   | 48.8  | 48.9  |   |
| Cycle Queue Clearance Time ( g c ), s           |     |   |   | 12.6  | 37.0   | 3.2   | 5.3   |   |   | 48.8  | 48.9  |   |
| Green Ratio ( g/C )                             |     |   |   | 0.34  | 0.34   | 0.56  | 0.58  |   |   | 0.49  | 0.49  |   |
| Capacity ( c ), veh/h                           |     |   |   | 609   | 440    | 175   | 1860  |   |   | 848   | 837   |   |
| Volume-to-Capacity Ratio ( X )                  |     |   |   | 0.437 | 1.289  | 0.634 | 0.178 |   |   | 0.947 | 0.952 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |     |   |   | 225.1 | 1304.6 | 70.9  | 89.1  |   |   | 834.3 | 770.4 |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |     |   |   | 9.0   | 43.8   | 2.8   | 3.2   |   |   | 30.7  | 30.8  |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |     |   |   | 0.68  | 3.95   | 0.30  | 0.22  |   |   | 1.57  | 1.58  |   |
| Uniform Delay ( d 1 ), s/veh                    |     |   |   | 28.4  | 36.5   | 25.2  | 11.0  |   |   | 26.8  | 26.9  |   |
| Incremental Delay ( d 2 ), s/veh                |     |   |   | 0.2   | 146.2  | 5.3   | 0.2   |   |   | 20.4  | 21.4  |   |
| Initial Queue Delay ( d 3 ), s/veh              |     |   |   | 0.0   | 0.0    | 0.0   | 0.0   |   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                      |     |   |   | 28.6  | 182.7  | 30.4  | 11.2  |   |   | 47.2  | 48.3  |   |
| Level of Service ( LOS )                        |     |   |   | C     | F      | C     | B     |   |   | D     | D     |   |
| Approach Delay, s/veh / LOS                     | 0.0 |   |   | 133.5 | F      | 16.0  | B     |   |   | 47.8  | D     |   |
| Intersection Delay, s/veh / LOS                 |     |   |   | 67.7  |        |       | E     |   |   |       |       |   |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.15 |  | B | 1.66 |  | B | 1.39 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 1.86 |  | B | 0.85 |  | A | 1.81 |  | B |

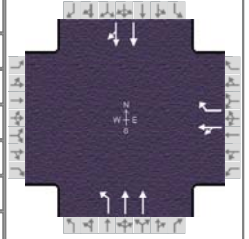
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                         |
|---------------------|-------------------------|
| Agency              | Bohannon Huston         |
| Analyst             | CDV                     |
| Jurisdiction        |                         |
| Urban Street        |                         |
| Intersection        | Atrisco Vista @ WB I-40 |
| Project Description | PM 2030 Build           |

## Intersection Information

|                 |                                   |
|-----------------|-----------------------------------|
| Duration, h     | 0.250                             |
| Area Type       | Other                             |
| PHF             | 0.92                              |
| Analysis Period | 1> 16:00                          |
| File Name       | Atrisco Vista_WB I40_2030B_PM.xus |



## Demand Information

|                     | EB |   |   | WB  |   |      | NB  |     |   | SB |      |    |
|---------------------|----|---|---|-----|---|------|-----|-----|---|----|------|----|
| Approach Movement   | L  | T | R | L   | T | R    | L   | T   | R | L  | T    | R  |
| Demand ( v ), veh/h |    |   |   | 242 | 1 | 1211 | 180 | 530 |   |    | 1277 | 35 |

## Signal Information

|               |       |                 |     |  |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |  |        |     |      |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |  | Green  | 6.0 | 53.5 | 37.0 | 0.0 | 0.0 | 0.0 |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  |  | Yellow | 4.0 | 4.5  | 4.0  | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |  | Red    | 0.0 | 1.0  | 0.0  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|---------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                  |     |     |     | 4    | 1    | 6    |     | 2    |
| Case Number                     |     |     |     | 11.0 | 1.0  | 4.0  |     | 8.3  |
| Phase Duration, s               |     |     |     | 41.0 | 10.0 | 69.0 |     | 59.0 |
| Change Period, ( Y+R c ), s     |     |     |     | 4.0  | 4.0  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 3.2  | 3.0  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 39.0 | 7.9  |      |     |      |
| Green Extension Time ( g e ), s |     |     |     | 0.0  | 0.0  | 0.0  |     | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 | 1.00 |      |     |      |
| Max Out Probability             |     |     |     | 1.00 | 1.00 |      |     |      |

## Movement Group Results

|                                                 | EB  |   |   | WB    |        |       | NB    |   |   | SB    |       |   |
|-------------------------------------------------|-----|---|---|-------|--------|-------|-------|---|---|-------|-------|---|
| Approach Movement                               | L   | T | R | L     | T      | R     | L     | T | R | L     | T     | R |
| Assigned Movement                               |     |   |   | 7     | 4      | 14    | 1     | 6 |   | 2     | 12    |   |
| Adjusted Flow Rate ( v ), veh/h                 |     |   |   | 264   | 1316   | 196   | 576   |   |   | 716   | 710   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |     |   |   | 1810  | 1485   | 1810  | 1710  |   |   | 1796  | 1779  |   |
| Queue Service Time ( g s ), s                   |     |   |   | 12.5  | 37.0   | 5.9   | 9.4   |   |   | 37.5  | 37.6  |   |
| Cycle Queue Clearance Time ( g c ), s           |     |   |   | 12.5  | 37.0   | 5.9   | 9.4   |   |   | 37.5  | 37.6  |   |
| Green Ratio ( g/C )                             |     |   |   | 0.34  | 0.34   | 0.56  | 0.58  |   |   | 0.49  | 0.49  |   |
| Capacity ( c ), veh/h                           |     |   |   | 609   | 499    | 219   | 1974  |   |   | 874   | 865   |   |
| Volume-to-Capacity Ratio ( X )                  |     |   |   | 0.434 | 2.636  | 0.891 | 0.292 |   |   | 0.819 | 0.821 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |     |   |   | 223.1 | 5009.2 | 192.2 | 158.5 |   |   | 610.4 | 576.5 |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |     |   |   | 8.9   | 185.5  | 7.7   | 6.0   |   |   | 23.1  | 23.1  |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |     |   |   | 0.68  | 15.18  | 0.80  | 0.40  |   |   | 1.15  | 1.15  |   |
| Uniform Delay ( d 1 ), s/veh                    |     |   |   | 28.4  | 36.5   | 23.7  | 11.8  |   |   | 24.1  | 24.2  |   |
| Incremental Delay ( d 2 ), s/veh                |     |   |   | 0.2   | 742.0  | 32.4  | 0.4   |   |   | 8.5   | 8.6   |   |
| Initial Queue Delay ( d 3 ), s/veh              |     |   |   | 0.0   | 0.0    | 0.0   | 0.0   |   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                      |     |   |   | 28.5  | 778.5  | 56.1  | 12.2  |   |   | 32.6  | 32.8  |   |
| Level of Service ( LOS )                        |     |   |   | C     | F      | E     | B     |   |   | C     | C     |   |
| Approach Delay, s/veh / LOS                     | 0.0 |   |   | 653.1 | F      | 23.3  | C     |   |   | 32.7  | C     |   |
| Intersection Delay, s/veh / LOS                 |     |   |   | 290.3 |        |       | F     |   |   |       |       |   |

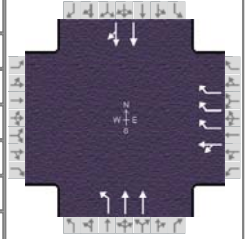
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.15 |  | B | 1.66 |  | B | 1.39 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 3.10 |  | C | 1.12 |  | A | 1.66 |  | B |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                 |               |                                                  |                 |         |
|---------------------|---------------------------------|---------------|--------------------------------------------------|-----------------|---------|
| Agency              | Bohannon Huston                 |               |                                                  | Duration, h     | 0.250   |
| Analyst             | CDV                             | Analysis Date | 11/21/2019                                       | Area Type       | Other   |
| Jurisdiction        |                                 | Time Period   | AM Peak                                          | PHF             | 0.92    |
| Urban Street        |                                 | Analysis Year | 2030                                             | Analysis Period | 1> 7:00 |
| Intersection        | Atrisco Vista @ WB I-40         | File Name     | Atrisco Vista_WB I40_2030B_AM (Triple Right).xus |                 |         |
| Project Description | AM 2030 Build (Triple Right WB) |               |                                                  |                 |         |



## Demand Information

|                     | EB |   |   | WB  |   |     | NB  |     |   | SB |      |    |
|---------------------|----|---|---|-----|---|-----|-----|-----|---|----|------|----|
| Approach Movement   | L  | T | R | L   | T | R   | L   | T   | R | L  | T    | R  |
| Demand ( v ), veh/h |    |   |   | 244 | 1 | 522 | 102 | 305 |   |    | 1419 | 53 |

## Signal Information

|               |       |                 |     |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |     |      |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 5.8 | 60.7 | 30.0 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0 | 4.5  | 4.0  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 0.0 | 1.0  | 0.0  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                            | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|--------------------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                             |     |     |     | 4    | 1    | 6    |     | 2    |
| Case Number                                |     |     |     | 11.0 | 1.0  | 4.0  |     | 8.3  |
| Phase Duration, s                          |     |     |     | 34.0 | 9.8  | 76.0 |     | 66.2 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     |     |     | 4.0  | 4.0  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s               |     |     |     | 3.2  | 3.0  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     |     |     | 17.6 | 4.7  |      |     |      |
| Green Extension Time ( g <sub>e</sub> ), s |     |     |     | 2.1  | 0.1  | 0.0  |     | 0.0  |
| Phase Call Probability                     |     |     |     | 1.00 | 0.97 |      |     |      |
| Max Out Probability                        |     |     |     | 0.00 | 0.00 |      |     |      |

## Movement Group Results

|                                                  | EB  |   |   | WB    |       |       | NB    |   |   | SB    |       |   |
|--------------------------------------------------|-----|---|---|-------|-------|-------|-------|---|---|-------|-------|---|
| Approach Movement                                | L   | T | R | L     | T     | R     | L     | T | R | L     | T     | R |
| Assigned Movement                                |     |   |   | 7     | 4     | 14    | 1     | 6 |   | 2     | 12    |   |
| Adjusted Flow Rate ( v ), veh/h                  |     |   |   | 266   | 567   | 111   | 332   |   |   | 803   | 797   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |     |   |   | 1810  | 1158  | 1810  | 1611  |   |   | 1737  | 1715  |   |
| Queue Service Time ( g <sub>s</sub> ), s         |     |   |   | 13.8  | 15.6  | 2.7   | 4.5   |   |   | 48.8  | 42.8  |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |     |   |   | 13.8  | 15.6  | 2.7   | 4.5   |   |   | 48.8  | 42.8  |   |
| Green Ratio ( g/C )                              |     |   |   | 0.27  | 0.27  | 0.62  | 0.64  |   |   | 0.55  | 0.55  |   |
| Capacity ( c ), veh/h                            |     |   |   | 494   | 948   | 196   | 2065  |   |   | 959   | 946   |   |
| Volume-to-Capacity Ratio ( X )                   |     |   |   | 0.540 | 0.599 | 0.566 | 0.161 |   |   | 0.838 | 0.842 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |     |   |   | 246   | 226.7 | 71.5  | 71.1  |   |   | 659.7 | 607.4 |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |     |   |   | 9.8   | 7.6   | 2.9   | 2.6   |   |   | 24.3  | 24.3  |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |     |   |   | 0.75  | 0.69  | 0.30  | 0.18  |   |   | 1.24  | 1.25  |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |     |   |   | 34.1  | 34.8  | 24.3  | 7.9   |   |   | 20.5  | 20.6  |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |     |   |   | 0.3   | 0.2   | 1.0   | 0.2   |   |   | 8.7   | 9.0   |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |     |   |   | 0.0   | 0.0   | 0.0   | 0.0   |   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                       |     |   |   | 34.5  | 35.0  | 25.3  | 8.1   |   |   | 29.2  | 29.7  |   |
| Level of Service ( LOS )                         |     |   |   |       | C     | C     | C     | A |   | C     | C     |   |
| Approach Delay, s/veh / LOS                      | 0.0 |   |   | 34.8  |       | C     | 12.4  |   | B | 29.4  |       | C |
| Intersection Delay, s/veh / LOS                  |     |   |   | 28.4  |       |       |       |   |   | C     |       |   |

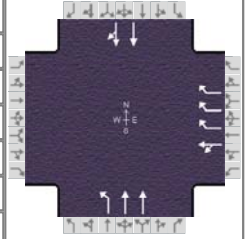
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 2.07 |  | B | 1.38 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 1.86 |  | B | 0.85 |  | A | 1.81 |  | B |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                 |               |                                                  |                 |          |
|---------------------|---------------------------------|---------------|--------------------------------------------------|-----------------|----------|
| Agency              | Bohannon Huston                 |               |                                                  | Duration, h     | 0.250    |
| Analyst             | CDV                             | Analysis Date | 11/21/2019                                       | Area Type       | Other    |
| Jurisdiction        |                                 | Time Period   | PM Peak                                          | PHF             | 0.92     |
| Urban Street        |                                 | Analysis Year | 2030                                             | Analysis Period | 1> 16:00 |
| Intersection        | Atrisco Vista @ WB I-40         | File Name     | Atrisco Vista_WB I40_2030B_PM (Triple Right).xus |                 |          |
| Project Description | PM 2030 Build (Triple Right WB) |               |                                                  |                 |          |



## Demand Information

|                     | EB |   |   | WB  |   |      | NB  |     |   | SB |      |    |
|---------------------|----|---|---|-----|---|------|-----|-----|---|----|------|----|
| Approach Movement   | L  | T | R | L   | T | R    | L   | T   | R | L  | T    | R  |
| Demand ( v ), veh/h |    |   |   | 242 | 1 | 1211 | 180 | 530 |   |    | 1277 | 35 |

## Signal Information

|               |       |                 |     |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |     |      |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 6.0 | 53.5 | 37.0 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0 | 4.5  | 4.0  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 0.0 | 1.0  | 0.0  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                            | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|--------------------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                             |     |     |     | 4    | 1    | 6    |     | 2    |
| Case Number                                |     |     |     | 11.0 | 1.0  | 4.0  |     | 8.3  |
| Phase Duration, s                          |     |     |     | 41.0 | 10.0 | 69.0 |     | 59.0 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     |     |     | 4.0  | 4.0  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s               |     |     |     | 3.2  | 3.0  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     |     |     | 38.6 | 7.9  |      |     |      |
| Green Extension Time ( g <sub>e</sub> ), s |     |     |     | 0.0  | 0.0  | 0.0  |     | 0.0  |
| Phase Call Probability                     |     |     |     | 1.00 | 1.00 |      |     |      |
| Max Out Probability                        |     |     |     | 1.00 | 1.00 |      |     |      |

## Movement Group Results

|                                                  | EB  |   |   | WB    |       |       | NB    |   |   | SB    |       |   |
|--------------------------------------------------|-----|---|---|-------|-------|-------|-------|---|---|-------|-------|---|
| Approach Movement                                | L   | T | R | L     | T     | R     | L     | T | R | L     | T     | R |
| Assigned Movement                                |     |   |   | 7     | 4     | 14    | 1     | 6 |   | 2     | 12    |   |
| Adjusted Flow Rate ( v ), veh/h                  |     |   |   | 264   | 1316  | 196   | 576   |   |   | 716   | 710   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |     |   |   | 1810  | 1314  | 1810  | 1710  |   |   | 1796  | 1779  |   |
| Queue Service Time ( g <sub>s</sub> ), s         |     |   |   | 12.5  | 36.6  | 5.9   | 9.4   |   |   | 37.5  | 37.6  |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |     |   |   | 12.5  | 36.6  | 5.9   | 9.4   |   |   | 37.5  | 37.6  |   |
| Green Ratio ( g/C )                              |     |   |   | 0.34  | 0.34  | 0.56  | 0.58  |   |   | 0.49  | 0.49  |   |
| Capacity ( c ), veh/h                            |     |   |   | 609   | 1326  | 219   | 1974  |   |   | 874   | 865   |   |
| Volume-to-Capacity Ratio ( X )                   |     |   |   | 0.434 | 0.993 | 0.891 | 0.292 |   |   | 0.819 | 0.821 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |     |   |   | 223.1 | 537.3 | 192.2 | 158.5 |   |   | 610.4 | 576.5 |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |     |   |   | 8.9   | 19.9  | 7.7   | 6.0   |   |   | 23.1  | 23.1  |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |     |   |   | 0.68  | 1.63  | 0.80  | 0.40  |   |   | 1.15  | 1.15  |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |     |   |   | 28.4  | 36.4  | 23.7  | 11.8  |   |   | 24.1  | 24.2  |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |     |   |   | 0.2   | 22.9  | 32.4  | 0.4   |   |   | 8.5   | 8.6   |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |     |   |   | 0.0   | 0.0   | 0.0   | 0.0   |   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                       |     |   |   | 28.5  | 59.3  | 56.1  | 12.2  |   |   | 32.6  | 32.8  |   |
| Level of Service ( LOS )                         |     |   |   |       | C     | E     | E     | B |   |       | C     | C |
| Approach Delay, s/veh / LOS                      | 0.0 |   |   | 54.1  | D     |       | 23.3  | C |   | 32.7  | C     |   |
| Intersection Delay, s/veh / LOS                  |     |   |   | 39.7  |       |       |       | D |   |       |       |   |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 2.08 |  | B | 1.39 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 3.10 |  | C | 1.12 |  | A | 1.66 |  | B |

HCM 6th TWSC  
4: ATRISCO VISTA & FRONTAGE

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections

| Intersection             |        |      |        |       |        |      |        |      |      |      |      |      |
|--------------------------|--------|------|--------|-------|--------|------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 2.6    |      |        |       |        |      |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL   | WBT    | WBR  | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕↕   |        |       |        | ↗↗   | ↘↘     | ↕↕   | ↗↗   | ↘↘   | ↕↕   |      |
| Traffic Vol, veh/h       | 5      | 0    | 50     | 0     | 0      | 0    | 120    | 713  | 0    | 0    | 1418 | 34   |
| Future Vol, veh/h        | 5      | 0    | 50     | 0     | 0      | 0    | 120    | 713  | 0    | 0    | 1418 | 34   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0      | 0    | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop  | Stop   | Stop | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -     | -      | None | -      | -    | Free | -    | -    | None |
| Storage Length           | -      | -    | -      | -     | -      | 0    | 250    | -    | 250  | 250  | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -     | 0      | -    | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -     | 0      | -    | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 90     | 90   | 90     | 90    | 90     | 90   | 90     | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 5      | 5    | 5      | 2     | 2      | 2    | 9      | 9    | 9    | 9    | 9    | 9    |
| Mvmt Flow                | 6      | 0    | 56     | 0     | 0      | 0    | 133    | 792  | 0    | 0    | 1576 | 38   |
|                          |        |      |        |       |        |      |        |      |      |      |      |      |
| Major/Minor              | Minor2 |      | Minor1 |       | Major1 |      | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 2257   | 2653 | 807    | -     | -      | 396  | 1614   | 0    | -    | 792  | 0    | 0    |
| Stage 1                  | 1595   | 1595 | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 662    | 1058 | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 7.6    | 6.6  | 7      | -     | -      | 6.94 | 4.28   | -    | -    | 4.28 | -    | -    |
| Critical Hdwy Stg 1      | 6.6    | 5.6  | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.6    | 5.6  | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.55   | 4.05 | 3.35   | -     | -      | 3.32 | 2.29   | -    | -    | 2.29 | -    | -    |
| Pot Cap-1 Maneuver       | 22     | 22   | 318    | 0     | 0      | 603  | 369    | -    | 0    | 780  | -    | -    |
| Stage 1                  | 108    | 160  | -      | 0     | 0      | -    | -      | -    | 0    | -    | -    | -    |
| Stage 2                  | 410    | 293  | -      | 0     | 0      | -    | -      | -    | 0    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |       |        |      |        | -    |      |      | -    | -    |
| Mov Cap-1 Maneuver       | 16     | 14   | 318    | -     | -      | 603  | 369    | -    | -    | 780  | -    | -    |
| Mov Cap-2 Maneuver       | 16     | 14   | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 69     | 160  | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 262    | 188  | -      | -     | -      | -    | -      | -    | -    | -    | -    | -    |
|                          |        |      |        |       |        |      |        |      |      |      |      |      |
|                          |        |      |        |       |        |      |        |      |      |      |      |      |
| Approach                 | EB     |      | WB     |       | NB     |      | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 65.3   |      | 0      |       | 2.9    |      | 0      |      |      |      |      |      |
| HCM LOS                  | F      |      | A      |       |        |      |        |      |      |      |      |      |
|                          |        |      |        |       |        |      |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | EBLn1  | WBLn1 | SBL    | SBT  | SBR    |      |      |      |      |      |
| Capacity (veh/h)         | 369    | -    | 117    | -     | 780    | -    | -      |      |      |      |      |      |
| HCM Lane V/C Ratio       | 0.361  | -    | 0.522  | -     | -      | -    | -      |      |      |      |      |      |
| HCM Control Delay (s)    | 20.2   | -    | 65.3   | 0     | 0      | -    | -      |      |      |      |      |      |
| HCM Lane LOS             | C      | -    | F      | A     | A      | -    | -      |      |      |      |      |      |
| HCM 95th %tile Q(veh)    | 1.6    | -    | 2.4    | -     | 0      | -    | -      |      |      |      |      |      |

HCM 6th TWSC  
4: ATRISCO VISTA & FRONTAGE

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections

| Intersection                 |        |                        |        |                            |        |      |        |                                |      |      |      |      |
|------------------------------|--------|------------------------|--------|----------------------------|--------|------|--------|--------------------------------|------|------|------|------|
| Int Delay, s/veh             | 62.3   |                        |        |                            |        |      |        |                                |      |      |      |      |
| Movement                     | EBL    | EBT                    | EBR    | WBL                        | WBT    | WBR  | NBL    | NBT                            | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations          |        | ↕                      |        |                            |        | ↕    | ↕      | ↕                              | ↕    | ↕    | ↕    |      |
| Traffic Vol, veh/h           | 21     | 0                      | 168    | 0                          | 0      | 0    | 110    | 1635                           | 0    | 0    | 1141 | 8    |
| Future Vol, veh/h            | 21     | 0                      | 168    | 0                          | 0      | 0    | 110    | 1635                           | 0    | 0    | 1141 | 8    |
| Conflicting Peds, #/hr       | 0      | 0                      | 0      | 0                          | 0      | 0    | 0      | 0                              | 0    | 0    | 0    | 0    |
| Sign Control                 | Stop   | Stop                   | Stop   | Stop                       | Stop   | Stop | Free   | Free                           | Free | Free | Free | Free |
| RT Channelized               | -      | -                      | None   | -                          | -      | None | -      | -                              | Free | -    | -    | None |
| Storage Length               | -      | -                      | -      | -                          | -      | 0    | 250    | -                              | 250  | 250  | -    | -    |
| Veh in Median Storage, #     | -      | 0                      | -      | -                          | 0      | -    | -      | 0                              | -    | -    | 0    | -    |
| Grade, %                     | -      | 0                      | -      | -                          | 0      | -    | -      | 0                              | -    | -    | 0    | -    |
| Peak Hour Factor             | 86     | 86                     | 86     | 86                         | 86     | 86   | 86     | 86                             | 86   | 86   | 86   | 86   |
| Heavy Vehicles, %            | 13     | 13                     | 13     | 2                          | 2      | 2    | 5      | 5                              | 5    | 2    | 2    | 2    |
| Mvmt Flow                    | 24     | 0                      | 195    | 0                          | 0      | 0    | 128    | 1901                           | 0    | 0    | 1327 | 9    |
|                              |        |                        |        |                            |        |      |        |                                |      |      |      |      |
| Major/Minor                  | Minor2 |                        | Minor1 |                            | Major1 |      | Major2 |                                |      |      |      |      |
| Conflicting Flow All         | 2539   | 3489                   | 668    | -                          | -      | 951  | 1336   | 0                              | -    | 1901 | 0    | 0    |
| Stage 1                      | 1332   | 1332                   | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
| Stage 2                      | 1207   | 2157                   | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
| Critical Hdwy                | 7.76   | 6.76                   | 7.16   | -                          | -      | 6.94 | 4.2    | -                              | -    | 4.14 | -    | -    |
| Critical Hdwy Stg 1          | 6.76   | 5.76                   | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
| Critical Hdwy Stg 2          | 6.76   | 5.76                   | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
| Follow-up Hdwy               | 3.63   | 4.13                   | 3.43   | -                          | -      | 3.32 | 2.25   | -                              | -    | 2.22 | -    | -    |
| Pot Cap-1 Maneuver           | ~ 12   | 5                      | 376    | 0                          | 0      | 260  | 497    | -                              | 0    | 309  | -    | -    |
| Stage 1                      | 148    | 202                    | -      | 0                          | 0      | -    | -      | -                              | 0    | -    | -    | -    |
| Stage 2                      | 178    | 75                     | -      | 0                          | 0      | -    | -      | -                              | 0    | -    | -    | -    |
| Platoon blocked, %           |        |                        |        |                            |        |      |        | -                              |      |      | -    | -    |
| Mov Cap-1 Maneuver           | ~ 10   | 4                      | 376    | -                          | -      | 260  | 497    | -                              | -    | 309  | -    | -    |
| Mov Cap-2 Maneuver           | ~ 10   | 4                      | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
| Stage 1                      | 110    | 202                    | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
| Stage 2                      | 132    | 56                     | -      | -                          | -      | -    | -      | -                              | -    | -    | -    | -    |
|                              |        |                        |        |                            |        |      |        |                                |      |      |      |      |
| Approach                     | EB     |                        | WB     |                            | NB     |      | SB     |                                |      |      |      |      |
| HCM Control Delay, \$ 1008.2 |        |                        | 0      |                            | 0.9    |      | 0      |                                |      |      |      |      |
| HCM LOS                      | F      |                        | A      |                            |        |      |        |                                |      |      |      |      |
|                              |        |                        |        |                            |        |      |        |                                |      |      |      |      |
| Minor Lane/Major Mvmt        | NBL    | NBT                    | EBLn1  | WBLn1                      | SBL    | SBT  | SBR    |                                |      |      |      |      |
| Capacity (veh/h)             | 497    | -                      | 74     | -                          | 309    | -    | -      |                                |      |      |      |      |
| HCM Lane V/C Ratio           | 0.257  | -                      | 2.97   | -                          | -      | -    | -      |                                |      |      |      |      |
| HCM Control Delay (s)        | 14.7   | \$ 1008.2              | 0      | 0                          | -      | -    |        |                                |      |      |      |      |
| HCM Lane LOS                 | B      | -                      | F      | A                          | A      | -    | -      |                                |      |      |      |      |
| HCM 95th %tile Q(veh)        | 1      | -                      | 22     | -                          | 0      | -    | -      |                                |      |      |      |      |
| Notes                        |        |                        |        |                            |        |      |        |                                |      |      |      |      |
| ~: Volume exceeds capacity   |        | \$: Delay exceeds 300s |        | +: Computation Not Defined |        |      |        | *: All major volume in platoon |      |      |      |      |

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

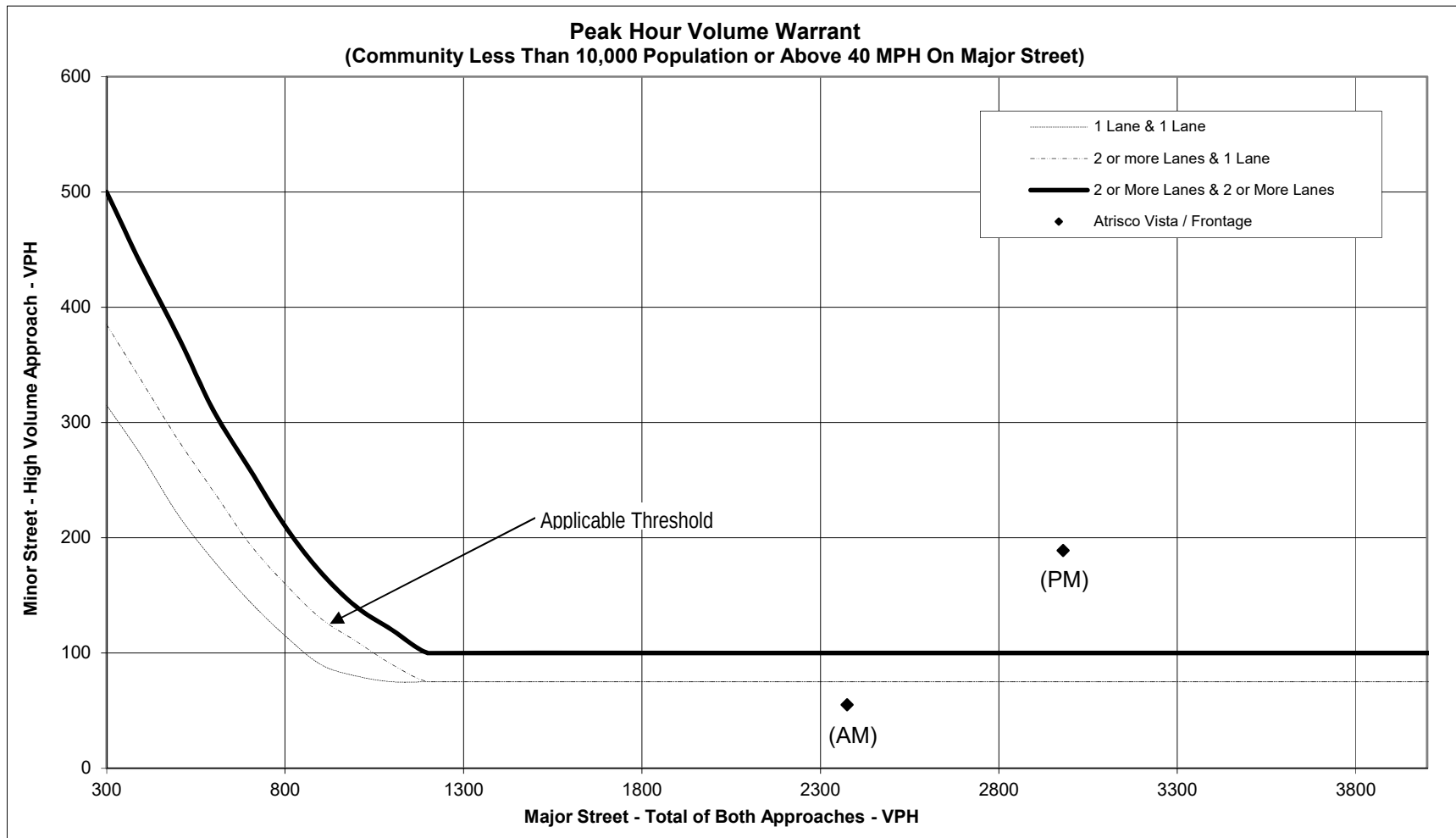
YES

Scenario: 2030 Build  
 Intersection: Atrisco Vista / Frontage  
 Type: 1 Lane/2 Lane  
 Major Street (Orientation): Atrisco Vista (N/S)  
 Minor Street (Orientation): Frontage (E/W)

Peak Hour Delay  
 1.31 Hours in AM Criteria - 5 Hours  
 68.83 Hours in PM

Meet Criteria? Intersection Volume > 800, Minor Approach > 100  
 NO YES YES  
 YES YES YES

|         | Minor Street Approach Volume |    |                   | Major Street Approach Volume |       |         | Satisfies   |
|---------|------------------------------|----|-------------------|------------------------------|-------|---------|-------------|
| Time    | EB                           | WB | High Vol Approach | NB                           | SB    | NB + SB | Warrant 3B? |
| AM Peak | 55                           | 0  | 55                | 865                          | 1,510 | 2,375   | NO          |
| PM Peak | 189                          | 0  | 189               | 1,803                        | 1,177 | 2,980   | YES         |



Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

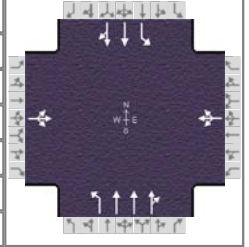
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                          |
|---------------------|--------------------------|
| Agency              | Bohannon Huston          |
| Analyst             | CDV                      |
| Jurisdiction        |                          |
| Urban Street        |                          |
| Intersection        | Atrisco Vista @ Frontage |
| Project Description | AM 2030 Build            |

## Intersection Information

|                 |         |
|-----------------|---------|
| Duration, h     | 0.250   |
| Area Type       | Other   |
| PHF             | 0.92    |
| Analysis Period | 1> 7:00 |



## Demand Information

|                       | EB |   |    | WB |   |   | NB  |     |   | SB |      |    |
|-----------------------|----|---|----|----|---|---|-----|-----|---|----|------|----|
| Approach Movement     | L  | T | R  | L  | T | R | L   | T   | R | L  | T    | R  |
| Demand ( $v$ ), veh/h | 5  | 0 | 50 | 0  | 0 | 0 | 120 | 713 | 0 | 0  | 1418 | 34 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 110.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                   | EBL | EBT  | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|-----------------------------------|-----|------|-----|------|------|------|-----|------|
| Assigned Phase                    |     | 8    |     | 4    | 1    | 6    | 5   | 2    |
| Case Number                       |     | 12.0 |     | 12.0 | 1.1  | 4.0  | 1.1 | 4.0  |
| Phase Duration, s                 |     | 13.9 |     | 0.0  | 12.9 | 96.1 | 0.0 | 83.3 |
| Change Period, ( $Y+R_c$ ), s     |     | 5.5  |     | 5.0  | 5.0  | 5.5  | 5.0 | 5.5  |
| Max Allow Headway ( $MAH$ ), s    |     | 3.2  |     | 0.0  | 3.0  | 0.0  | 0.0 | 0.0  |
| Queue Clearance Time ( $g_s$ ), s |     | 5.9  |     |      | 3.7  |      |     |      |
| Green Extension Time ( $g_e$ ), s |     | 0.1  |     | 0.0  | 0.2  | 0.0  | 0.0 | 0.0  |
| Phase Call Probability            |     | 0.84 |     |      | 0.98 |      |     |      |
| Max Out Probability               |     | 0.00 |     |      | 0.00 |      |     |      |

## Movement Group Results

|                                                   | EB   |       |    | WB  |       |    | NB    |       |       | SB    |       |       |
|---------------------------------------------------|------|-------|----|-----|-------|----|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L    | T     | R  | L   | T     | R  | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 3    | 8     | 18 | 7   | 4     | 14 | 1     | 6     | 16    | 5     | 2     | 12    |
| Adjusted Flow Rate ( $v$ ), veh/h                 |      | 60    |    |     | 0     |    | 130   | 775   | 0     | 0     | 791   | 787   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   |      | 1626  |    |     | 0     |    | 1810  | 1856  | 1610  | 1810  | 1707  | 1693  |
| Queue Service Time ( $g_s$ ), s                   |      | 3.9   |    |     | 0.0   |    | 1.7   | 3.1   | 0.0   | 0.0   | 27.8  | 28.0  |
| Cycle Queue Clearance Time ( $g_c$ ), s           |      | 3.9   |    |     | 0.0   |    | 1.7   | 3.1   | 0.0   | 0.0   | 27.8  | 28.0  |
| Green Ratio ( $g/C$ )                             |      | 0.08  |    |     |       |    | 0.80  | 0.82  | 0.82  | 0.66  | 0.71  | 0.71  |
| Capacity ( $c$ ), veh/h                           |      | 124   |    |     |       |    | 344   | 4585  |       | 567   | 1207  | 1197  |
| Volume-to-Capacity Ratio ( $X$ )                  |      | 0.482 |    |     | 0.000 |    | 0.380 | 0.169 | 0.000 | 0.000 | 0.656 | 0.658 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  |      | 70.6  |    |     | 0     |    | 47.6  | 26.7  | 0     | 0     | 381.1 | 344.9 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) |      | 2.8   |    |     | 0.0   |    | 1.9   | 1.0   | 0.0   | 0.0   | 13.8  | 13.8  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  |      | 0.07  |    |     | 0.00  |    | 0.19  | 0.03  | 0.00  | 0.00  | 0.38  | 0.38  |
| Uniform Delay ( $d_1$ ), s/veh                    |      | 48.7  |    |     |       |    | 9.3   | 2.0   |       | 0.0   | 8.8   | 8.8   |
| Incremental Delay ( $d_2$ ), s/veh                |      | 1.1   |    |     | 0.0   |    | 0.3   | 0.1   | 0.0   | 0.0   | 2.8   | 2.8   |
| Initial Queue Delay ( $d_3$ ), s/veh              |      | 0.0   |    |     | 0.0   |    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      |      | 49.8  |    |     |       |    | 9.5   | 2.1   |       | 0.0   | 11.6  | 11.7  |
| Level of Service (LOS)                            |      | D     |    |     |       |    | A     | A     |       |       | B     | B     |
| Approach Delay, s/veh / LOS                       | 49.8 | D     |    | 0.0 |       |    | 3.1   | A     |       | 11.6  | B     |       |
| Intersection Delay, s/veh / LOS                   | 9.5  |       |    |     |       |    | A     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.48 | B | 2.46 | B | 1.59 | B | 1.63 | B |
| Bicycle LOS Score / LOS    | 0.59 | A | 0.49 | A | 0.99 | A | 1.79 | B |

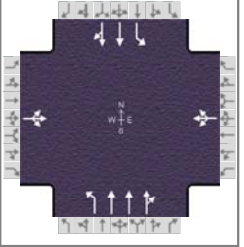
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                          |
|---------------------|--------------------------|
| Agency              | Bohannon Huston          |
| Analyst             | CDV                      |
| Jurisdiction        |                          |
| Urban Street        |                          |
| Intersection        | Atrisco Vista @ Frontage |
| Project Description | PM 2030 Build            |

## Intersection Information

|                 |         |
|-----------------|---------|
| Duration, h     | 0.250   |
| Area Type       | Other   |
| PHF             | 0.92    |
| Analysis Period | 1> 7:00 |



## Demand Information

|                     | EB |   |     | WB |   |   | NB  |      |   | SB |      |   |
|---------------------|----|---|-----|----|---|---|-----|------|---|----|------|---|
| Approach Movement   | L  | T | R   | L  | T | R | L   | T    | R | L  | T    | R |
| Demand ( v ), veh/h | 21 | 0 | 168 | 0  | 0 | 0 | 110 | 1635 | 0 | 0  | 1141 | 8 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 110.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|--------------------------------------------|-----|------|-----|------|------|------|-----|------|
| Assigned Phase                             |     | 8    |     | 4    | 1    | 6    | 5   | 2    |
| Case Number                                |     | 12.0 |     | 12.0 | 1.1  | 4.0  | 1.1 | 4.0  |
| Phase Duration, s                          |     | 21.4 |     | 0.0  | 12.8 | 88.6 | 0.0 | 75.8 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     | 5.0  | 5.0  | 5.5  | 5.0 | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     | 0.0  | 3.0  | 0.0  | 0.0 | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 15.6 |     |      | 4.1  |      |     |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.3  |     | 0.0  | 0.2  | 0.0  | 0.0 | 0.0  |
| Phase Call Probability                     |     | 1.00 |     |      | 0.97 |      |     |      |
| Max Out Probability                        |     | 0.00 |     |      | 0.00 |      |     |      |

## Movement Group Results

|                                                  | EB   |       |    | WB  |       |    | NB    |       |       | SB    |       |       |
|--------------------------------------------------|------|-------|----|-----|-------|----|-------|-------|-------|-------|-------|-------|
| Approach Movement                                | L    | T     | R  | L   | T     | R  | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                | 3    | 8     | 18 | 7   | 4     | 14 | 1     | 6     | 16    | 5     | 2     | 12    |
| Adjusted Flow Rate ( v ), veh/h                  |      | 205   |    |     | 0     |    | 120   | 1777  | 0     | 0     | 625   | 624   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |      | 1630  |    |     | 0     |    | 1810  | 1856  | 1610  | 1810  | 1707  | 1703  |
| Queue Service Time ( g <sub>s</sub> ), s         |      | 13.6  |    |     | 0.0   |    | 2.1   | 12.6  | 0.0   | 0.0   | 22.9  | 22.9  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |      | 13.6  |    |     | 0.0   |    | 2.1   | 12.6  | 0.0   | 0.0   | 22.9  | 22.9  |
| Green Ratio ( g/C )                              |      | 0.14  |    |     |       |    | 0.73  | 0.76  | 0.76  | 0.59  | 0.64  | 0.64  |
| Capacity ( c ), veh/h                            |      | 235   |    |     |       |    | 388   | 4207  |       | 236   | 1092  | 1089  |
| Volume-to-Capacity Ratio ( X )                   |      | 0.874 |    |     | 0.000 |    | 0.308 | 0.422 | 0.000 | 0.000 | 0.573 | 0.573 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |      | 236.1 |    |     | 0     |    | 28    | 161.8 | 0     | 0     | 349.1 | 316.3 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |      | 9.4   |    |     | 0.0   |    | 1.1   | 6.3   | 0.0   | 0.0   | 12.6  | 12.7  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |      | 0.24  |    |     | 0.00  |    | 0.11  | 0.16  | 0.00  | 0.00  | 0.35  | 0.35  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |      | 46.1  |    |     |       |    | 8.2   | 4.8   |       | 0.0   | 11.3  | 11.3  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |      | 4.0   |    |     | 0.0   |    | 0.2   | 0.3   | 0.0   | 0.0   | 2.2   | 2.2   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |      | 0.0   |    |     | 0.0   |    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       |      | 50.1  |    |     |       |    | 8.4   | 5.1   |       | 0.0   | 13.5  | 13.5  |
| Level of Service ( LOS )                         |      | D     |    |     |       |    | A     | A     |       |       | B     | B     |
| Approach Delay, s/veh / LOS                      | 50.1 | D     |    | 0.0 |       |    | 5.3   | A     |       | 13.5  | B     |       |
| Intersection Delay, s/veh / LOS                  | 11.1 |       |    |     |       |    | B     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.48 | B | 2.46 | B | 1.62 | B | 1.65 | B |
| Bicycle LOS Score / LOS    | 0.83 | A | 0.49 | A | 1.53 | B | 1.52 | B |

HCM 6th TWSC  
5: ATRISCO VISTA & TEMPURPEDIC

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections

| Intersection               |                                                                                   |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
|----------------------------|-----------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 1512.3                                                                            |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
| Movement                   | EBL                                                                               | EBT                    | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR    | NBL                                                                               | NBT                                                                               | NBR                                                                               | SBL   | SBT                                                                                 | SBR  |
| Lane Configurations        |  |                        |  |  |  |        |  |  |  |       |  |      |
| Traffic Vol, veh/h         | 8                                                                                 | 0                      | 44                                                                                | 294                                                                               | 0                                                                                 | 8      | 190                                                                               | 423                                                                               | 100                                                                               | 3     | 1134                                                                                | 57   |
| Future Vol, veh/h          | 8                                                                                 | 0                      | 44                                                                                | 294                                                                               | 0                                                                                 | 8      | 190                                                                               | 423                                                                               | 100                                                                               | 3     | 1134                                                                                | 57   |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0     | 0                                                                                   | 0    |
| Sign Control               | Stop                                                                              | Stop                   | Stop                                                                              | Stop                                                                              | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free  | Free                                                                                | Free |
| RT Channelized             | -                                                                                 | -                      | None                                                                              | -                                                                                 | -                                                                                 | None   | -                                                                                 | -                                                                                 | None                                                                              | -     | -                                                                                   | None |
| Storage Length             | 0                                                                                 | -                      | 0                                                                                 | 0                                                                                 | -                                                                                 | -      | 250                                                                               | -                                                                                 | 0                                                                                 | -     | -                                                                                   | -    |
| Veh in Median Storage, #   | -                                                                                 | 0                      | -                                                                                 | -                                                                                 | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -                                                                                 | -     | 0                                                                                   | -    |
| Grade, %                   | -                                                                                 | 0                      | -                                                                                 | -                                                                                 | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -                                                                                 | -     | 0                                                                                   | -    |
| Peak Hour Factor           | 87                                                                                | 92                     | 87                                                                                | 92                                                                                | 92                                                                                | 92     | 87                                                                                | 87                                                                                | 92                                                                                | 92    | 87                                                                                  | 87   |
| Heavy Vehicles, %          | 50                                                                                | 2                      | 50                                                                                | 2                                                                                 | 2                                                                                 | 2      | 11                                                                                | 11                                                                                | 2                                                                                 | 2     | 3                                                                                   | 3    |
| Mvmt Flow                  | 9                                                                                 | 0                      | 51                                                                                | 320                                                                               | 0                                                                                 | 9      | 218                                                                               | 486                                                                               | 109                                                                               | 3     | 1303                                                                                | 66   |
|                            |                                                                                   |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
| Major/Minor                | Minor2                                                                            |                        | Minor1                                                                            |                                                                                   | Major1                                                                            |        | Major2                                                                            |                                                                                   |                                                                                   |       |                                                                                     |      |
| Conflicting Flow All       | 2323                                                                              | -                      | 1336                                                                              | 2290                                                                              | 2297                                                                              | 486    | 1369                                                                              | 0                                                                                 | 0                                                                                 | 595   | 0                                                                                   | 0    |
| Stage 1                    | 1342                                                                              | -                      | -                                                                                 | 922                                                                               | 922                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Stage 2                    | 981                                                                               | -                      | -                                                                                 | 1368                                                                              | 1375                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Critical Hdwy              | 7.6                                                                               | -                      | 6.7                                                                               | 7.12                                                                              | 6.52                                                                              | 6.22   | 4.21                                                                              | -                                                                                 | -                                                                                 | 4.12  | -                                                                                   | -    |
| Critical Hdwy Stg 1        | 6.6                                                                               | -                      | -                                                                                 | 6.12                                                                              | 5.52                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Critical Hdwy Stg 2        | 6.6                                                                               | -                      | -                                                                                 | 6.12                                                                              | 5.52                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Follow-up Hdwy             | 3.95                                                                              | -                      | 3.75                                                                              | 3.518                                                                             | 4.018                                                                             | 3.318  | 2.299                                                                             | -                                                                                 | -                                                                                 | 2.218 | -                                                                                   | -    |
| Pot Cap-1 Maneuver         | 19                                                                                | 0                      | 148                                                                               | ~ 28                                                                              | 39                                                                                | 581    | 474                                                                               | -                                                                                 | -                                                                                 | 981   | -                                                                                   | -    |
| Stage 1                    | 149                                                                               | 0                      | -                                                                                 | 324                                                                               | 349                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Stage 2                    | 246                                                                               | 0                      | -                                                                                 | ~ 181                                                                             | 213                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Platoon blocked, %         |                                                                                   |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 |       | -                                                                                   | -    |
| Mov Cap-1 Maneuver         | 12                                                                                | -                      | 148                                                                               | ~ 12                                                                              | 21                                                                                | 581    | 474                                                                               | -                                                                                 | -                                                                                 | 981   | -                                                                                   | -    |
| Mov Cap-2 Maneuver         | 12                                                                                | -                      | -                                                                                 | ~ 12                                                                              | 21                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Stage 1                    | 80                                                                                | -                      | -                                                                                 | ~ 175                                                                             | 188                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
| Stage 2                    | 131                                                                               | -                      | -                                                                                 | ~ 118                                                                             | 210                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -    |
|                            |                                                                                   |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
| Approach                   | EB                                                                                |                        | WB                                                                                |                                                                                   | NB                                                                                |        | SB                                                                                |                                                                                   |                                                                                   |       |                                                                                     |      |
| HCM Control Delay, s       | 124.1                                                                             |                        | \$ 11821                                                                          |                                                                                   | 5.1                                                                               |        | 0                                                                                 |                                                                                   |                                                                                   |       |                                                                                     |      |
| HCM LOS                    | F                                                                                 |                        | F                                                                                 |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
|                            |                                                                                   |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBL                                                                               | NBT                    | NBR                                                                               | EBLn1                                                                             | EBLn2                                                                             | WBLn1  | WBLn2                                                                             | SBL                                                                               | SBT                                                                               | SBR   |                                                                                     |      |
| Capacity (veh/h)           | 474                                                                               | -                      | -                                                                                 | 12                                                                                | 148                                                                               | 12     | 581                                                                               | 981                                                                               | -                                                                                 | -     |                                                                                     |      |
| HCM Lane V/C Ratio         | 0.461                                                                             | -                      | -                                                                                 | 0.766                                                                             | 0.342                                                                             | 26.63  | 0.015                                                                             | 0.003                                                                             | -                                                                                 | -     |                                                                                     |      |
| HCM Control Delay (s)      | 18.9                                                                              | -                      | -                                                                                 | \$ 578.3                                                                          | 41.1                                                                              | 2142.4 | 11.3                                                                              | 8.7                                                                               | 0                                                                                 | -     |                                                                                     |      |
| HCM Lane LOS               | C                                                                                 | -                      | -                                                                                 | F                                                                                 | E                                                                                 | F      | B                                                                                 | A                                                                                 | A                                                                                 | -     |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 2.4                                                                               | -                      | -                                                                                 | 1.7                                                                               | 1.4                                                                               | 41.3   | 0                                                                                 | 0                                                                                 | -                                                                                 | -     |                                                                                     |      |
| Notes                      |                                                                                   |                        |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |      |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s |                                                                                   |                                                                                   | +: Computation Not Defined                                                        |        |                                                                                   |                                                                                   | *: All major volume in platoon                                                    |       |                                                                                     |      |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 746.2                                                                             |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR                                                                                | SBL                                                                                 | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |  |  |  |  |  |      |
| Traffic Vol, veh/h       | 70                                                                                | 0                                                                                 | 264  | 194                                                                               | 0                                                                                 | 5    | 84                                                                                | 1243                                                                              | 355                                                                                | 9                                                                                   | 702                                                                                 | 24   |
| Future Vol, veh/h        | 70                                                                                | 0                                                                                 | 264  | 194                                                                               | 0                                                                                 | 5    | 84                                                                                | 1243                                                                              | 355                                                                                | 9                                                                                   | 702                                                                                 | 24   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0    |
| Sign Control             | Stop                                                                              | Stop                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop | Free                                                                              | Free                                                                              | Free                                                                               | Free                                                                                | Free                                                                                | Free |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None                                                                               | -                                                                                   | -                                                                                   | None |
| Storage Length           | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -    | 250                                                                               | -                                                                                 | 0                                                                                  | 0                                                                                   | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -                                                                                  | -                                                                                   | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -                                                                                  | -                                                                                   | 0                                                                                   | -    |
| Peak Hour Factor         | 80                                                                                | 92                                                                                | 80   | 92                                                                                | 92                                                                                | 92   | 80                                                                                | 80                                                                                | 92                                                                                 | 92                                                                                  | 80                                                                                  | 80   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2                                                                                  | 2                                                                                   | 6                                                                                   | 6    |
| Mvmt Flow                | 88                                                                                | 0                                                                                 | 330  | 211                                                                               | 0                                                                                 | 5    | 105                                                                               | 1554                                                                              | 386                                                                                | 10                                                                                  | 878                                                                                 | 30   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 1900   | 3063 | 454    | 2223 | 2692   | 777  | 908    | 0 | 0 | 1940 | 0 | 0 |
| Stage 1              | 913    | 913  | -      | 1764 | 1764   | -    | -      | - | - | -    | - | - |
| Stage 2              | 987    | 2150 | -      | 459  | 928    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | ~ 42   | 12   | 553    | ~ 24 | 21     | 340  | 745    | - | - | 299  | - | - |
| Stage 1              | 294    | 350  | -      | ~ 87 | 136    | -    | -      | - | - | -    | - | - |
| Stage 2              | 265    | 86   | -      | 551  | 345    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - |      | - | - |
| Mov Cap-1 Maneuver   | ~ 36   | 10   | 553    | ~ 8  | 17     | 340  | 745    | - | - | 299  | - | - |
| Mov Cap-2 Maneuver   | ~ 36   | 10   | -      | ~ 8  | 17     | -    | -      | - | - | -    | - | - |
| Stage 1              | 253    | 338  | -      | ~ 75 | 117    | -    | -      | - | - | -    | - | - |
| Stage 2              | 224    | 74   | -      | 215  | 334    | -    | -      | - | - | -    | - | - |

| Approach             | EB    |  | WB         |  | NB  |  | SB  |  |
|----------------------|-------|--|------------|--|-----|--|-----|--|
| HCM Control Delay, s | 202.6 |  | \$ 12007.3 |  | 0.5 |  | 0.2 |  |
| HCM LOS              | F     |  | F          |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1    | EBLn2      | WBLn1  | WBLn2 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|----------|------------|--------|-------|-------|-----|-----|
| Capacity (veh/h)      | 745   | -   | -   | 36       | 553        | 8      | 340   | 299   | -   | -   |
| HCM Lane V/C Ratio    | 0.141 | -   | -   | 2.431    | 0.597      | 26.359 | 0.016 | 0.033 | -   | -   |
| HCM Control Delay (s) | 10.6  | -   | -   | \$ 888.4 | \$ 12316.4 | 15.8   | 17.4  | -     | -   | -   |
| HCM Lane LOS          | B     | -   | -   | F        | C          | F      | C     | C     | -   | -   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 9.8      | 3.9        | 28.2   | 0     | 0.1   | -   | -   |

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

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

**Satisfies Warrant 3A**

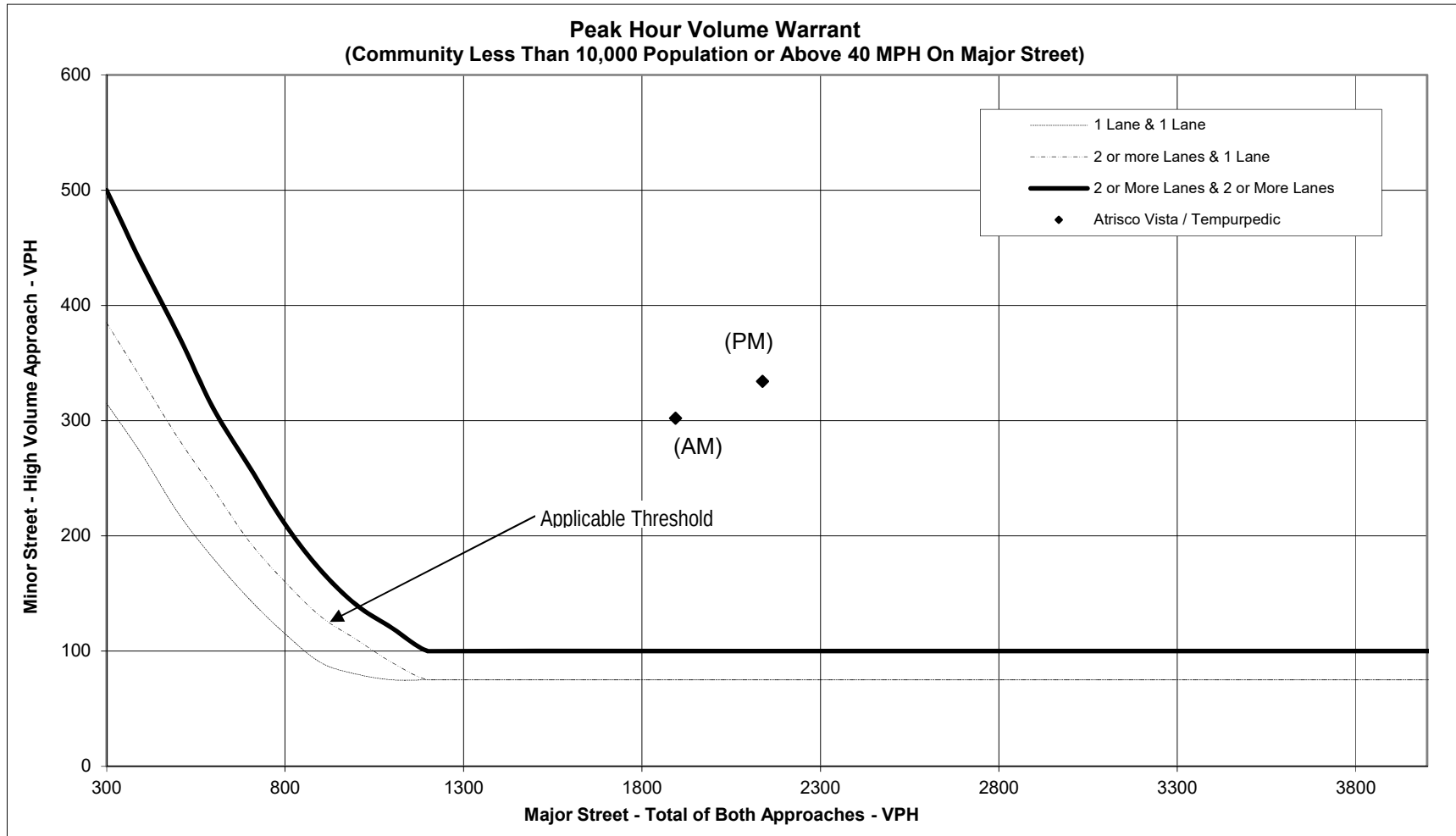
**YES**

Scenario: 2030 Build  
 Intersection: Atrisco Vista / Tempurpedic  
 Type: 1 Lane/2 Lane  
 Major Street (Orientation): Atrisco Vista (N/S)  
 Minor Street (Orientation): Tempurpedic (E/W)

Peak Hour Delay  
 43.62 Hours in AM Criteria - 5 Hours  
 49.82 Hours in PM

Meet Criteria? Intersection Volume > 800, Minor Approach > 100  
 YES YES YES  
 YES YES YES

| Time    | Minor Street Approach Volume |     |                   | Major Street Approach Volume |       |         | Satisfies Warrant 3B? |
|---------|------------------------------|-----|-------------------|------------------------------|-------|---------|-----------------------|
|         | EB                           | WB  | High Vol Approach | NB                           | SB    | NB + SB |                       |
| AM Peak | 52                           | 302 | 302               | 645                          | 1,249 | 1,894   | YES                   |
| PM Peak | 334                          | 199 | 334               | 1,384                        | 754   | 2,138   | YES                   |



Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

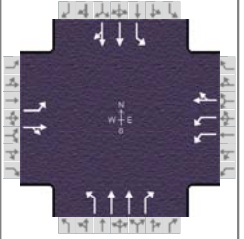
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                           |
|---------------------|---------------------------|
| Agency              | Bohannon Huston           |
| Analyst             | CDV                       |
| Jurisdiction        |                           |
| Urban Street        |                           |
| Intersection        | Atrisco Vista @ Tempur... |
| Project Description | AM 2030 Build             |

## Intersection Information

|                 |                                        |
|-----------------|----------------------------------------|
| Duration, h     | 0.250                                  |
| Area Type       | Other                                  |
| PHF             | 0.92                                   |
| Analysis Period | 1> 7:00                                |
| File Name       | Atrisco Vista_Tempurpedic_2030B_AM.xus |



## Demand Information

|                     | EB |   |    | WB  |   |   | NB  |     |     | SB |      |    |
|---------------------|----|---|----|-----|---|---|-----|-----|-----|----|------|----|
| Approach Movement   | L  | T | R  | L   | T | R | L   | T   | R   | L  | T    | R  |
| Demand ( v ), veh/h | 8  | 0 | 44 | 294 | 0 | 8 | 190 | 423 | 100 | 3  | 1134 | 57 |

## Signal Information

|               |       |                 |     |                                                                                    |     |     |      |      |     |     |                                                                                    |                                                                                    |
|---------------|-------|-----------------|-----|------------------------------------------------------------------------------------|-----|-----|------|------|-----|-----|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Cycle, s      | 90.0  | Reference Phase | 2   |  |     |     |      |      |     |     |                                                                                    |                                                                                    |
| Offset, s     | 0     | Reference Point | End |  |     |     |      |      |     |     |                                                                                    |                                                                                    |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green                                                                              | 0.2 | 1.4 | 48.0 | 10.6 | 3.8 | 0.0 |  |                                                                                    |
|               |       |                 |     | Yellow                                                                             | 4.0 | 4.0 | 4.5  | 4.0  | 4.5 | 0.0 |                                                                                    |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red                                                                                | 1.0 | 1.0 | 1.0  | 1.0  | 1.0 | 0.0 |                                                                                    |                                                                                    |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|------|-----|------|------|------|------|------|
| Assigned Phase                             |     | 8    |     | 4    | 1    | 6    | 5    | 2    |
| Case Number                                |     | 10.0 |     | 10.0 | 1.1  | 3.0  | 1.1  | 4.0  |
| Phase Duration, s                          |     | 9.3  |     | 15.6 | 11.6 | 59.8 | 5.2  | 53.5 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     | 5.0  | 5.0  | 5.5  | 5.0  | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     | 3.0  | 3.0  | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 4.6  |     | 9.9  | 6.3  |      | 2.1  |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.1  |     | 0.7  | 0.3  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     |     | 0.76 |     | 1.00 | 0.99 |      | 0.08 |      |
| Max Out Probability                        |     | 0.00 |     | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                  | EB    |       |    | WB    |       |    | NB    |       |       | SB    |       |       |
|--------------------------------------------------|-------|-------|----|-------|-------|----|-------|-------|-------|-------|-------|-------|
| Approach Movement                                | L     | T     | R  | L     | T     | R  | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                | 3     | 8     | 18 | 7     | 4     | 14 | 1     | 6     | 16    | 5     | 2     | 12    |
| Adjusted Flow Rate ( v ), veh/h                  | 9     | 48    |    | 320   | 9     |    | 207   | 460   | 109   | 3     | 652   | 642   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1457  | 1610  |    | 1757  | 1346  |    | 1810  | 1766  | 1610  | 1810  | 1707  | 1678  |
| Queue Service Time ( g <sub>s</sub> ), s         | 0.5   | 2.6   |    | 7.9   | 0.5   |    | 4.3   | 5.3   | 2.6   | 0.1   | 26.0  | 26.1  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 0.5   | 2.6   |    | 7.9   | 0.5   |    | 4.3   | 5.3   | 2.6   | 0.1   | 26.0  | 26.1  |
| Green Ratio ( g/C )                              | 0.04  | 0.04  |    | 0.12  | 0.12  |    | 0.63  | 0.60  | 0.60  | 0.54  | 0.53  | 0.53  |
| Capacity ( c ), veh/h                            | 61    | 68    |    | 416   | 159   |    | 318   | 2133  | 972   | 579   | 910   | 895   |
| Volume-to-Capacity Ratio ( X )                   | 0.142 | 0.706 |    | 0.769 | 0.055 |    | 0.649 | 0.216 | 0.112 | 0.006 | 0.717 | 0.718 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 10    | 49.4  |    | 149.2 | 8.6   |    | 78.4  | 80.3  | 36.1  | 1.2   | 411.8 | 369.7 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 0.3   | 2.0   |    | 6.0   | 0.3   |    | 3.1   | 3.1   | 1.4   | 0.0   | 14.9  | 14.8  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.04  | 0.05  |    | 0.60  | 0.01  |    | 0.31  | 0.08  | 0.12  | 0.00  | 0.41  | 0.41  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 41.5  | 42.6  |    | 38.5  | 35.2  |    | 15.3  | 8.1   | 7.6   | 9.7   | 15.9  | 15.9  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 0.4   | 4.9   |    | 1.1   | 0.1   |    | 0.8   | 0.2   | 0.2   | 0.0   | 4.8   | 4.9   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   |    | 0.0   | 0.0   |    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 41.9  | 47.5  |    | 39.6  | 35.3  |    | 16.1  | 8.4   | 7.8   | 9.7   | 20.7  | 20.8  |
| Level of Service ( LOS )                         | D     | D     |    | D     | D     |    | B     | A     | A     | A     | C     | C     |
| Approach Delay, s/veh / LOS                      | 46.7  | D     |    | 39.5  | D     |    | 10.4  | B     |       | 20.7  | C     |       |
| Intersection Delay, s/veh / LOS                  | 20.6  |       |    |       |       |    | C     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   |  | WB   |   |  | NB   |   |  | SB   |   |  |
|----------------------------|------|---|--|------|---|--|------|---|--|------|---|--|
| Pedestrian LOS Score / LOS | 2.47 | B |  | 2.31 | B |  | 2.07 | B |  | 1.89 | B |  |
| Bicycle LOS Score / LOS    | 0.58 | A |  | 1.03 | A |  | 1.13 | A |  | 1.56 | B |  |

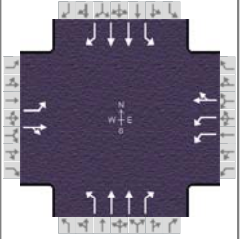
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                           |
|---------------------|---------------------------|
| Agency              | Bohannon Huston           |
| Analyst             | CDV                       |
| Jurisdiction        |                           |
| Urban Street        |                           |
| Intersection        | Atrisco Vista @ Tempur... |
| Project Description | PM 2030 Build             |

## Intersection Information

|                 |                                        |
|-----------------|----------------------------------------|
| Duration, h     | 0.250                                  |
| Area Type       | Other                                  |
| PHF             | 0.92                                   |
| Analysis Period | 1> 7:00                                |
| File Name       | Atrisco Vista_Tempurpedic_2030B_PM.xus |



## Demand Information

|                     | EB |   |     | WB  |   |   | NB |      |     | SB |     |    |
|---------------------|----|---|-----|-----|---|---|----|------|-----|----|-----|----|
| Approach Movement   | L  | T | R   | L   | T | R | L  | T    | R   | L  | T   | R  |
| Demand ( v ), veh/h | 70 | 0 | 264 | 194 | 0 | 5 | 84 | 1243 | 335 | 9  | 702 | 24 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 90.0  | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|------|-----|------|------|------|------|------|
| Assigned Phase                             |     | 8    |     | 4    | 1    | 6    | 5    | 2    |
| Case Number                                |     | 10.0 |     | 10.0 | 1.1  | 3.0  | 1.1  | 3.0  |
| Phase Duration, s                          |     | 23.5 |     | 12.4 | 9.0  | 48.4 | 5.7  | 45.0 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     | 5.0  | 5.0  | 5.5  | 5.0  | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.2  |     | 3.0  | 3.0  | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 17.6 |     | 7.3  | 4.4  |      | 2.3  |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.4  |     | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     |     | 1.00 |     | 1.00 | 0.90 |      | 0.22 |      |
| Max Out Probability                        |     | 0.10 |     | 0.14 | 0.11 |      | 0.00 |      |

## Movement Group Results

|                                                  | EB    |       |    | WB    |      |    | NB    |       |       | SB    |       |       |
|--------------------------------------------------|-------|-------|----|-------|------|----|-------|-------|-------|-------|-------|-------|
| Approach Movement                                | L     | T     | R  | L     | T    | R  | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                | 3     | 8     | 18 | 7     | 4    | 14 | 1     | 6     | 16    | 5     | 2     | 12    |
| Adjusted Flow Rate ( v ), veh/h                  | 76    | 287   |    | 211   | 5    |    | 91    | 1351  | 364   | 10    | 763   | 26    |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1457  | 1610  |    | 1757  | 1346 |    | 1810  | 1766  | 1610  | 1810  | 1625  | 1610  |
| Queue Service Time ( g <sub>s</sub> ), s         | 4.0   | 15.6  |    | 5.3   | 0.3  |    | 2.4   | 29.2  | 13.8  | 0.3   | 15.5  | 0.8   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 4.0   | 15.6  |    | 5.3   | 0.3  |    | 2.4   | 29.2  | 13.8  | 0.3   | 15.5  | 0.8   |
| Green Ratio ( g/C )                              | 0.20  | 0.20  |    | 0.08  | 0.08 |    | 0.49  | 0.48  | 0.48  | 0.45  | 0.44  | 0.44  |
| Capacity ( c ), veh/h                            | 292   | 323   |    | 290   | 111  |    | 352   | 1683  | 767   | 146   | 1426  | 706   |
| Volume-to-Capacity Ratio ( X )                   | 0.260 | 0.889 |    | 0.727 |      |    | 0.260 | 0.803 | 0.475 | 0.067 | 0.535 | 0.037 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 71.9  | 281.9 |    | 100.2 |      |    | 40.5  | 434.4 | 214.6 | 4.7   | 257.9 | 13.4  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 2.4   | 11.3  |    | 4.0   |      |    | 1.6   | 17.0  | 8.6   | 0.2   | 9.3   | 0.5   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.29  | 0.28  |    | 0.40  |      |    | 0.16  | 0.43  | 0.72  | 0.02  | 0.26  | 0.06  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 30.3  | 35.0  |    | 40.3  | 38.0 |    | 14.0  | 20.0  | 15.9  | 18.3  | 18.5  | 14.4  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 0.2   | 13.5  |    | 1.3   |      |    | 0.1   | 4.2   | 2.1   | 0.1   | 1.4   | 0.1   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   |    | 0.0   |      |    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 30.5  | 48.5  |    | 41.6  | 38.1 |    | 14.2  | 24.1  | 18.1  | 18.4  | 20.0  | 14.5  |
| Level of Service ( LOS )                         | C     | D     |    | D     | D    |    | B     | C     | B     | B     | B     | B     |
| Approach Delay, s/veh / LOS                      | 44.8  |       | D  | 40.6  |      | D  | 22.4  |       | C     | 19.8  |       | B     |
| Intersection Delay, s/veh / LOS                  | 25.5  |       |    |       |      |    | C     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.47 |  | B | 2.44 |  | B | 2.09 |  | B | 1.90 |  | B |
| Bicycle LOS Score / LOS    | 1.09 |  | A | 0.84 |  | A | 1.98 |  | B | 1.15 |  | A |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 238.9                                                                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                   | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations        |  |  |  |  |  |  |
| Traffic Vol, veh/h         | 772                                                                               | 24                                                                                | 177                                                                               | 263                                                                               | 8                                                                                 | 422                                                                               |
| Future Vol, veh/h          | 772                                                                               | 24                                                                                | 177                                                                               | 263                                                                               | 8                                                                                 | 422                                                                               |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control               | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized             | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length             | -                                                                                 | 0                                                                                 | -                                                                                 | 0                                                                                 | 400                                                                               | -                                                                                 |
| 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                  | 839                                                                               | 26                                                                                | 192                                                                               | 286                                                                               | 9                                                                                 | 459                                                                               |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor                | Minor1                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All       | 669                                                                               | 96                                                                                | 0                                                                                 | 0                                                                                 | 478                                                                               | 0                                                                                 |
| Stage 1                    | 192                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                    | 477                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy              | 6.63                                                                              | 6.93                                                                              | -                                                                                 | -                                                                                 | 4.13                                                                              | -                                                                                 |
| Critical Hdwy Stg 1        | 5.83                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2        | 5.43                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy             | 3.519                                                                             | 3.319                                                                             | -                                                                                 | -                                                                                 | 2.219                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver         | ~ 407                                                                             | 942                                                                               | -                                                                                 | -                                                                                 | 1082                                                                              | -                                                                                 |
| Stage 1                    | ~ 822                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                    | ~ 623                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %         |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver         | ~ 404                                                                             | 942                                                                               | -                                                                                 | -                                                                                 | 1082                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver         | ~ 404                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                    | ~ 822                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                    | ~ 618                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                   | WB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s\$     | 499.9                                                                             | 0                                                                                 |                                                                                   | 0.2                                                                               |                                                                                   |                                                                                   |
| HCM LOS                    | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBT                                                                               | NBR                                                                               | WBLn1                                                                             | WBLn2                                                                             | SBL                                                                               | SBT                                                                               |
| Capacity (veh/h)           | -                                                                                 | -                                                                                 | 404                                                                               | 942                                                                               | 1082                                                                              | -                                                                                 |
| HCM Lane V/C Ratio         | -                                                                                 | -                                                                                 | 2.077                                                                             | 0.028                                                                             | 0.008                                                                             | -                                                                                 |
| HCM Control Delay (s)      | -                                                                                 | -                                                                                 | \$ 515.2                                                                          | 8.9                                                                               | 8.4                                                                               | -                                                                                 |
| HCM Lane LOS               | -                                                                                 | -                                                                                 | F                                                                                 | A                                                                                 | A                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)      | -                                                                                 | -                                                                                 | 59.7                                                                              | 0.1                                                                               | 0                                                                                 | -                                                                                 |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon                                                    |

| Intersection               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh           | 89                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                   | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations        |  |  |  |  |  |  |
| Traffic Vol, veh/h         | 495                                                                               | 15                                                                                | 463                                                                               | 855                                                                               | 26                                                                                | 240                                                                               |
| Future Vol, veh/h          | 495                                                                               | 15                                                                                | 463                                                                               | 855                                                                               | 26                                                                                | 240                                                                               |
| Conflicting Peds, #/hr     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control               | Stop                                                                              | Stop                                                                              | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized             | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length             | -                                                                                 | 0                                                                                 | -                                                                                 | 0                                                                                 | 400                                                                               | -                                                                                 |
| 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                  | 538                                                                               | 16                                                                                | 503                                                                               | 929                                                                               | 28                                                                                | 261                                                                               |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor                | Minor1                                                                            | Major1                                                                            |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All       | 820                                                                               | 252                                                                               | 0                                                                                 | 0                                                                                 | 1432                                                                              | 0                                                                                 |
| Stage 1                    | 503                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                    | 317                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy              | 6.63                                                                              | 6.93                                                                              | -                                                                                 | -                                                                                 | 4.13                                                                              | -                                                                                 |
| Critical Hdwy Stg 1        | 5.83                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2        | 5.43                                                                              | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy             | 3.519                                                                             | 3.319                                                                             | -                                                                                 | -                                                                                 | 2.219                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver         | ~ 328                                                                             | 748                                                                               | -                                                                                 | -                                                                                 | 472                                                                               | -                                                                                 |
| Stage 1                    | 573                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                    | 738                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %         |                                                                                   |                                                                                   | -                                                                                 | -                                                                                 |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver         | ~ 309                                                                             | 748                                                                               | -                                                                                 | -                                                                                 | 472                                                                               | -                                                                                 |
| Mov Cap-2 Maneuver         | ~ 309                                                                             | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                    | 573                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                    | 694                                                                               | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                   | WB                                                                                | NB                                                                                |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s\$     | 364.8                                                                             | 0                                                                                 |                                                                                   | 1.3                                                                               |                                                                                   |                                                                                   |
| HCM LOS                    | F                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt      | NBT                                                                               | NBR                                                                               | WBLn1                                                                             | WBLn2                                                                             | SBL                                                                               | SBT                                                                               |
| Capacity (veh/h)           | -                                                                                 | -                                                                                 | 309                                                                               | 748                                                                               | 472                                                                               | -                                                                                 |
| HCM Lane V/C Ratio         | -                                                                                 | -                                                                                 | 1.741                                                                             | 0.022                                                                             | 0.06                                                                              | -                                                                                 |
| HCM Control Delay (s)      | -                                                                                 | -                                                                                 | \$ 375.6                                                                          | 9.9                                                                               | 13.1                                                                              | -                                                                                 |
| HCM Lane LOS               | -                                                                                 | -                                                                                 | F                                                                                 | A                                                                                 | B                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)      | -                                                                                 | -                                                                                 | 34.5                                                                              | 0.1                                                                               | 0.2                                                                               | -                                                                                 |
| Notes                      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| ~: Volume exceeds capacity |                                                                                   | \$: Delay exceeds 300s                                                            |                                                                                   | +: Computation Not Defined                                                        |                                                                                   | *: All major volume in platoon                                                    |

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

**Satisfies Warrant 3A**

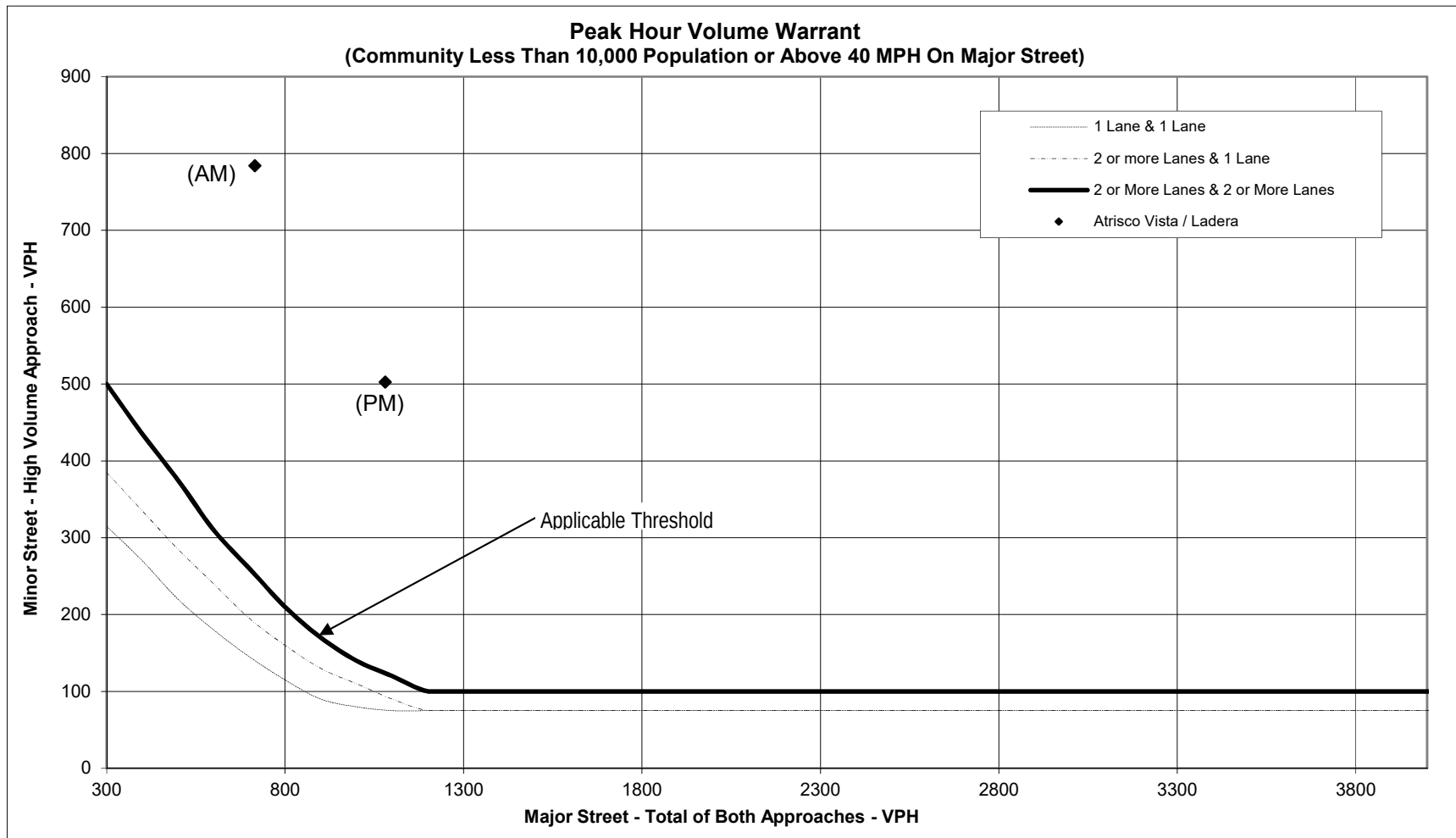
**YES**

Scenario: 2030 Build  
 Intersection: Atrisco Vista / Ladera  
 Type: 2 Lane/2 Lane  
 Major Street (Orientation): Atrisco Vista (N/S)  
 Minor Street (Orientation): Ladera (E/W)

Peak Hour Delay  
 111.72 Hours in AM Criteria - 5 Hours  
 152.56 Hours in PM

Meet Criteria? Intersection Volume > 800, Minor Approach > 100  
 YES YES YES  
 YES YES YES

|         | Minor Street Approach Volume |     |                   | Major Street Approach Volume |     |         | Satisfies   |
|---------|------------------------------|-----|-------------------|------------------------------|-----|---------|-------------|
| Time    | EB                           | WB  | High Vol Approach | NB                           | SB  | NB + SB | Warrant 3B? |
| AM Peak | 0                            | 784 | 784               | 301                          | 415 | 716     | YES         |
| PM Peak | 0                            | 503 | 503               | 845                          | 236 | 1,081   | YES         |



Note: 100 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 75 VPH as the threshold for a minor street approach with one lane

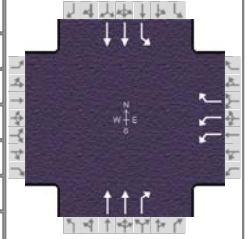
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                        |
|---------------------|------------------------|
| Agency              | Bohannon Huston        |
| Analyst             | CDV                    |
| Jurisdiction        |                        |
| Urban Street        |                        |
| Intersection        | Atrisco Vista @ Ladera |
| Project Description | AM 2030 Build          |

## Intersection Information

|                 |                                   |
|-----------------|-----------------------------------|
| Duration, h     | 0.250                             |
| Area Type       | Other                             |
| PHF             | 0.92                              |
| Analysis Period | 1> 7:00                           |
| File Name       | Atrisco Vista_Ladera_2030B_AM.xus |



## Demand Information

|                     | EB |   |   | WB  |   |    | NB |     |     | SB |     |   |
|---------------------|----|---|---|-----|---|----|----|-----|-----|----|-----|---|
| Approach Movement   | L  | T | R | L   | T | R  | L  | T   | R   | L  | T   | R |
| Demand ( v ), veh/h |    |   |   | 772 |   | 24 |    | 177 | 263 | 8  | 422 |   |

## Signal Information

|               |       |                 |     |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |     |      |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 1.2 | 63.9 | 29.4 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0 | 4.5  | 4.0  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 1.0 | 1.0  | 1.0  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL | NBT  | SBL  | SBT  |
|---------------------------------|-----|-----|-----|------|-----|------|------|------|
| Assigned Phase                  |     |     |     | 4    |     | 6    | 5    | 2    |
| Case Number                     |     |     |     | 9.0  |     | 7.3  | 1.0  | 4.0  |
| Phase Duration, s               |     |     |     | 34.4 |     | 69.4 | 6.2  | 75.6 |
| Change Period, ( Y+R c ), s     |     |     |     | 5.0  |     | 5.5  | 5.0  | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 3.0  |     | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 27.3 |     |      | 2.2  |      |
| Green Extension Time ( g e ), s |     |     |     | 2.1  |     | 0.0  | 0.0  | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 |     |      | 0.23 |      |
| Max Out Probability             |     |     |     | 0.00 |     |      | 0.00 |      |

## Movement Group Results

|                                                 | EB  |   |   | WB    |   |     | NB    |       |   | SB    |       |   |
|-------------------------------------------------|-----|---|---|-------|---|-----|-------|-------|---|-------|-------|---|
| Approach Movement                               | L   | T | R | L     | T | R   | L     | T     | R | L     | T     | R |
| Assigned Movement                               |     |   |   | 7     |   | 14  | 6     | 16    |   | 5     | 2     |   |
| Adjusted Flow Rate ( v ), veh/h                 |     |   |   | 839   |   | 26  | 192   | 286   |   | 9     | 459   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |     |   |   | 1757  |   |     | 1766  | 1610  |   | 1810  | 1625  |   |
| Queue Service Time ( g s ), s                   |     |   |   | 25.3  |   |     | 2.7   | 3.6   |   | 0.2   | 6.6   |   |
| Cycle Queue Clearance Time ( g c ), s           |     |   |   | 25.3  |   |     | 2.7   | 3.6   |   | 0.2   | 6.6   |   |
| Green Ratio ( g/C )                             |     |   |   | 0.27  |   |     | 0.58  | 0.85  |   | 0.61  | 0.64  |   |
| Capacity ( c ), veh/h                           |     |   |   | 940   |   |     | 2053  | 1366  |   | 758   | 2071  |   |
| Volume-to-Capacity Ratio ( X )                  |     |   |   | 0.893 |   |     | 0.094 | 0.209 |   | 0.011 | 0.221 |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |     |   |   | 396.1 |   |     | 44.4  | 22.4  |   | 3.3   | 103.2 |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |     |   |   | 15.8  |   |     | 1.7   | 0.9   |   | 0.1   | 3.7   |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |     |   |   | 0.40  |   |     | 0.04  | 0.17  |   | 0.01  | 0.21  |   |
| Uniform Delay ( d 1 ), s/veh                    |     |   |   | 38.8  |   |     | 10.2  | 1.5   |   | 8.5   | 8.4   |   |
| Incremental Delay ( d 2 ), s/veh                |     |   |   | 1.2   |   |     | 0.1   | 0.3   |   | 0.0   | 0.2   |   |
| Initial Queue Delay ( d 3 ), s/veh              |     |   |   | 0.0   |   |     | 0.0   | 0.0   |   | 0.0   | 0.0   |   |
| Control Delay ( d ), s/veh                      |     |   |   | 40.0  |   | 0.0 | 10.3  | 1.9   |   | 8.5   | 8.7   |   |
| Level of Service ( LOS )                        |     |   |   | D     |   | A   | B     | A     |   | A     | A     |   |
| Approach Delay, s/veh / LOS                     | 0.0 |   |   | 38.8  |   | D   | 5.3   | A     |   | 8.7   | A     |   |
| Intersection Delay, s/veh / LOS                 |     |   |   | 22.2  |   |     |       |       |   | C     |       |   |

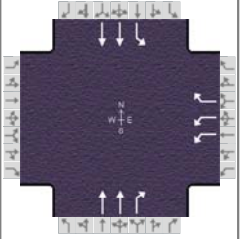
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 2.08 |  | B | 0.68 |  | A |
| Bicycle LOS Score / LOS    |      |  |   |      |  | F | 0.88 |  | A | 0.87 |  | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                        |               |                                   |                 |          |
|---------------------|------------------------|---------------|-----------------------------------|-----------------|----------|
| Agency              | Bohannon Huston        |               |                                   | Duration, h     | 0.250    |
| Analyst             | CDV                    | Analysis Date | 11/21/2019                        | Area Type       | Other    |
| Jurisdiction        |                        | Time Period   | PM Peak                           | PHF             | 0.92     |
| Urban Street        |                        | Analysis Year | 2030                              | Analysis Period | 1> 16:00 |
| Intersection        | Atrisco Vista @ Ladera | File Name     | Atrisco Vista_Ladera_2030B_PM.xus |                 |          |
| Project Description | PM 2030 Build          |               |                                   |                 |          |



## Demand Information

|                     | EB |   |   | WB  |   |    | NB |     |     | SB |     |   |
|---------------------|----|---|---|-----|---|----|----|-----|-----|----|-----|---|
| Approach Movement   | L  | T | R | L   | T | R  | L  | T   | R   | L  | T   | R |
| Demand ( v ), veh/h |    |   |   | 495 |   | 15 |    | 463 | 855 | 26 | 240 |   |

## Signal Information

|               |       |                 |     |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |     |      |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 2.9 | 72.0 | 19.6 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0 | 4.5  | 4.0  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 1.0 | 1.0  | 1.0  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL | NBT  | SBL  | SBT  |
|---------------------------------|-----|-----|-----|------|-----|------|------|------|
| Assigned Phase                  |     |     |     | 4    |     | 6    | 5    | 2    |
| Case Number                     |     |     |     | 9.0  |     | 7.3  | 1.0  | 4.0  |
| Phase Duration, s               |     |     |     | 24.6 |     | 77.5 | 7.9  | 85.4 |
| Change Period, ( Y+R c ), s     |     |     |     | 5.0  |     | 5.5  | 5.0  | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 3.0  |     | 0.0  | 3.0  | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 18.3 |     |      | 2.5  |      |
| Green Extension Time ( g e ), s |     |     |     | 1.3  |     | 0.0  | 0.0  | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 |     |      | 0.58 |      |
| Max Out Probability             |     |     |     | 0.00 |     |      | 0.00 |      |

## Movement Group Results

|                                                 | EB   |   |   | WB    |   |     | NB    |       |       | SB    |   |   |
|-------------------------------------------------|------|---|---|-------|---|-----|-------|-------|-------|-------|---|---|
| Approach Movement                               | L    | T | R | L     | T | R   | L     | T     | R     | L     | T | R |
| Assigned Movement                               |      |   |   | 7     |   | 14  | 6     | 16    | 5     | 2     |   |   |
| Adjusted Flow Rate ( v ), veh/h                 |      |   |   | 538   |   | 16  | 503   | 929   | 28    | 261   |   |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |      |   |   | 1757  |   |     | 1766  | 1610  | 1810  | 1625  |   |   |
| Queue Service Time ( g s ), s                   |      |   |   | 16.3  |   |     | 6.3   | 25.1  | 0.5   | 2.6   |   |   |
| Cycle Queue Clearance Time ( g c ), s           |      |   |   | 16.3  |   |     | 6.3   | 25.1  | 0.5   | 2.6   |   |   |
| Green Ratio ( g/C )                             |      |   |   | 0.18  |   |     | 0.65  | 0.83  | 0.70  | 0.73  |   |   |
| Capacity ( c ), veh/h                           |      |   |   | 627   |   |     | 2312  | 1341  | 656   | 2361  |   |   |
| Volume-to-Capacity Ratio ( X )                  |      |   |   | 0.858 |   |     | 0.218 | 0.693 | 0.043 | 0.111 |   |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |      |   |   | 282.1 |   |     | 98.2  | 199.8 | 7.4   | 35.4  |   |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |      |   |   | 11.3  |   |     | 3.8   | 8.0   | 0.3   | 1.3   |   |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |      |   |   | 0.28  |   |     | 0.10  | 0.80  | 0.02  | 0.07  |   |   |
| Uniform Delay ( d 1 ), s/veh                    |      |   |   | 43.8  |   |     | 7.7   | 3.6   | 5.4   | 4.5   |   |   |
| Incremental Delay ( d 2 ), s/veh                |      |   |   | 1.4   |   |     | 0.2   | 3.0   | 0.0   | 0.1   |   |   |
| Initial Queue Delay ( d 3 ), s/veh              |      |   |   | 0.0   |   |     | 0.0   | 0.0   | 0.0   | 0.0   |   |   |
| Control Delay ( d ), s/veh                      |      |   |   | 45.2  |   | 0.0 | 7.9   | 6.6   | 5.4   | 4.6   |   |   |
| Level of Service ( LOS )                        |      |   |   | D     |   | A   | A     | A     | A     | A     |   |   |
| Approach Delay, s/veh / LOS                     | 0.0  |   |   | 43.9  |   | D   | 7.1   | A     |       | 4.7   |   | A |
| Intersection Delay, s/veh / LOS                 | 15.7 |   |   |       |   |     | B     |       |       |       |   |   |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 2.06 |  | B | 0.66 |  | A |
| Bicycle LOS Score / LOS    |      |  |   |      |  | F | 1.67 |  | B | 0.73 |  | A |

HCM 6th TWSC  
6: ARROYO VISTA & EB RAMPS

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections

| Intersection             |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-------|-------|------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 2.4                                                                               |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| Movement                 | EBL                                                                               | EBT  | EBR                                                                               | WBL   | WBT   | WBR  | NBL    | NBT                                                                                                                                                                 | NBR                                                                               | SBL  | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations      |  |      |  |       |       |      |        |   |  |      |   |  |
| Traffic Vol, veh/h       | 43                                                                                | 0    | 38                                                                                | 0     | 0     | 0    | 2      | 808                                                                                                                                                                 | 1772                                                                              | 0    | 1120                                                                                                                                                                    | 738                                                                                 |
| Future Vol, veh/h        | 43                                                                                | 0    | 38                                                                                | 0     | 0     | 0    | 2      | 808                                                                                                                                                                 | 1772                                                                              | 0    | 1120                                                                                                                                                                    | 738                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0     | 0     | 0    | 0      | 0                                                                                                                                                                   | 0                                                                                 | 0    | 0                                                                                                                                                                       | 0                                                                                   |
| Sign Control             | Stop                                                                              | Stop | Stop                                                                              | Stop  | Stop  | Stop | Free   | Free                                                                                                                                                                | Free                                                                              | Free | Free                                                                                                                                                                    | Free                                                                                |
| RT Channelized           | -                                                                                 | -    | Free                                                                              | -     | -     | None | -      | -                                                                                                                                                                   | Free                                                                              | -    | -                                                                                                                                                                       | Free                                                                                |
| Storage Length           | 0                                                                                 | -    | 300                                                                               | -     | -     | -    | -      | -                                                                                                                                                                   | 300                                                                               | -    | -                                                                                                                                                                       | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0    | -                                                                                 | -     | 16979 | -    | -      | 0                                                                                                                                                                   | -                                                                                 | -    | 0                                                                                                                                                                       | -                                                                                   |
| Grade, %                 | -                                                                                 | 0    | -                                                                                 | -     | 0     | -    | -      | 0                                                                                                                                                                   | -                                                                                 | -    | 0                                                                                                                                                                       | -                                                                                   |
| Peak Hour Factor         | 93                                                                                | 93   | 93                                                                                | 93    | 93    | 93   | 93     | 93                                                                                                                                                                  | 93                                                                                | 93   | 93                                                                                                                                                                      | 93                                                                                  |
| Heavy Vehicles, %        | 19                                                                                | 19   | 19                                                                                | 2     | 2     | 2    | 4      | 4                                                                                                                                                                   | 4                                                                                 | 3    | 3                                                                                                                                                                       | 3                                                                                   |
| Mvmt Flow                | 46                                                                                | 0    | 41                                                                                | 0     | 0     | 0    | 2      | 869                                                                                                                                                                 | 1905                                                                              | 0    | 1204                                                                                                                                                                    | 794                                                                                 |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| Major/Minor              | Minor2                                                                            |      |                                                                                   |       |       |      | Major1 |                                                                                                                                                                     | Major2                                                                            |      |                                                                                                                                                                         |                                                                                     |
| Conflicting Flow All     | 1643                                                                              | -    | -                                                                                 |       |       |      | 1204   | 0                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | 0                                                                                   |
| Stage 1                  | 1204                                                                              | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Stage 2                  | 439                                                                               | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Critical Hdwy            | 7.18                                                                              | -    | -                                                                                 |       |       |      | 4.18   | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Critical Hdwy Stg 1      | 6.18                                                                              | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Critical Hdwy Stg 2      | 6.18                                                                              | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Follow-up Hdwy           | 3.69                                                                              | -    | -                                                                                 |       |       |      | 2.24   | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Pot Cap-1 Maneuver       | 76                                                                                | 0    | 0                                                                                 |       |       |      | 564    | -                                                                                                                                                                   | 0                                                                                 | 0    | -                                                                                                                                                                       | 0                                                                                   |
| Stage 1                  | 215                                                                               | 0    | 0                                                                                 |       |       |      | -      | -                                                                                                                                                                   | 0                                                                                 | 0    | -                                                                                                                                                                       | 0                                                                                   |
| Stage 2                  | 570                                                                               | 0    | 0                                                                                 |       |       |      | -      | -                                                                                                                                                                   | 0                                                                                 | 0    | -                                                                                                                                                                       | 0                                                                                   |
| Platoon blocked, %       |                                                                                   |      |                                                                                   |       |       |      |        | -                                                                                                                                                                   |                                                                                   |      | -                                                                                                                                                                       |                                                                                     |
| Mov Cap-1 Maneuver       | 75                                                                                | 0    | -                                                                                 |       |       |      | 564    | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Mov Cap-2 Maneuver       | 75                                                                                | 0    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Stage 1                  | 213                                                                               | 0    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
| Stage 2                  | 570                                                                               | 0    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -    | -                                                                                                                                                                       | -                                                                                   |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| Approach                 | EB                                                                                |      |                                                                                   |       |       |      | NB     |                                                                                                                                                                     | SB                                                                                |      |                                                                                                                                                                         |                                                                                     |
| HCM Control Delay, s     | 110.8                                                                             |      |                                                                                   |       |       |      | 0      |                                                                                                                                                                     | 0                                                                                 |      |                                                                                                                                                                         |                                                                                     |
| HCM LOS                  | F                                                                                 |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT  | EBLn1                                                                             | EBLn2 | SBT   |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| Capacity (veh/h)         | 564                                                                               | -    | 75                                                                                | -     | -     |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| HCM Lane V/C Ratio       | 0.004                                                                             | -    | 0.616                                                                             | -     | -     |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| HCM Control Delay (s)    | 11.4                                                                              | -    | 110.8                                                                             | 0     | -     |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| HCM Lane LOS             | B                                                                                 | -    | F                                                                                 | A     | -     |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -    | 2.7                                                                               | -     | -     |      |        |                                                                                                                                                                     |                                                                                   |      |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
6: ARROYO VISTA & EB RAMPS

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections

| Intersection             |                                                                                   |      |                                                                                   |      |       |      |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 55.4                                                                              |      |                                                                                   |      |       |      |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |
| Movement                 | EBL                                                                               | EBT  | EBR                                                                               | WBL  | WBT   | WBR  | NBL  | NBT                                                                               | NBR                                                                               | SBL  | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations      |  |      |  |      |       |      |      |  |  |      |  |  |
| Traffic Vol, veh/h       | 45                                                                                | 0    | 91                                                                                | 0    | 0     | 0    | 0    | 738                                                                               | 800                                                                               | 0    | 2295                                                                                | 282                                                                                 |
| Future Vol, veh/h        | 45                                                                                | 0    | 91                                                                                | 0    | 0     | 0    | 0    | 738                                                                               | 800                                                                               | 0    | 2295                                                                                | 282                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0     | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Stop                                                                              | Stop | Stop                                                                              | Stop | Stop  | Stop | Free | Free                                                                              | Free                                                                              | Free | Free                                                                                | Free                                                                                |
| RT Channelized           | -                                                                                 | -    | Free                                                                              | -    | -     | None | -    | -                                                                                 | Free                                                                              | -    | -                                                                                   | Free                                                                                |
| Storage Length           | 0                                                                                 | -    | 300                                                                               | -    | -     | -    | -    | -                                                                                 | 300                                                                               | -    | -                                                                                   | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0    | -                                                                                 | -    | 16979 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -                                                                                 | 0    | -                                                                                 | -    | 0     | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 90                                                                                | 90   | 90                                                                                | 90   | 90    | 90   | 90   | 90                                                                                | 90                                                                                | 90   | 90                                                                                  | 90                                                                                  |
| Heavy Vehicles, %        | 31                                                                                | 31   | 31                                                                                | 2    | 2     | 2    | 6    | 6                                                                                 | 6                                                                                 | 2    | 2                                                                                   | 2                                                                                   |
| Mvmt Flow                | 50                                                                                | 0    | 101                                                                               | 0    | 0     | 0    | 0    | 820                                                                               | 889                                                                               | 0    | 2550                                                                                | 313                                                                                 |

| Major/Minor          | Minor2 |   |   | Major1 |   |   | Major2 |   |   |
|----------------------|--------|---|---|--------|---|---|--------|---|---|
| Conflicting Flow All | 2960   | - | - | -      | 0 | - | -      | - | 0 |
| Stage 1              | 2550   | - | - | -      | - | - | -      | - | - |
| Stage 2              | 410    | - | - | -      | - | - | -      | - | - |
| Critical Hdwy        | 7.42   | - | - | -      | - | - | -      | - | - |
| Critical Hdwy Stg 1  | 6.42   | - | - | -      | - | - | -      | - | - |
| Critical Hdwy Stg 2  | 6.42   | - | - | -      | - | - | -      | - | - |
| Follow-up Hdwy       | 3.81   | - | - | -      | - | - | -      | - | - |
| Pot Cap-1 Maneuver   | ~ 7    | 0 | 0 | 0      | - | 0 | 0      | - | 0 |
| Stage 1              | ~ 29   | 0 | 0 | 0      | - | 0 | 0      | - | 0 |
| Stage 2              | 561    | 0 | 0 | 0      | - | 0 | 0      | - | 0 |
| Platoon blocked, %   |        |   |   |        | - |   |        |   | - |
| Mov Cap-1 Maneuver   | ~ 7    | 0 | - | -      | - | - | -      | - | - |
| Mov Cap-2 Maneuver   | ~ 7    | 0 | - | -      | - | - | -      | - | - |
| Stage 1              | ~ 29   | 0 | - | -      | - | - | -      | - | - |
| Stage 2              | 561    | 0 | - | -      | - | - | -      | - | - |

| Approach                     | EB | NB | SB |
|------------------------------|----|----|----|
| HCM Control Delay, \$ 3789.1 |    | 0  | 0  |
| HCM LOS                      | F  |    |    |

| Minor Lane/Major Mvmt | NBT       | EBLn1 | EBLn2 | SBT |
|-----------------------|-----------|-------|-------|-----|
| Capacity (veh/h)      | -         | 7     | -     | -   |
| HCM Lane V/C Ratio    | -         | 7.143 | -     | -   |
| HCM Control Delay (s) | \$ 3789.1 | 0     | -     | -   |
| HCM Lane LOS          | -         | F     | A     | -   |
| HCM 95th %tile Q(veh) | -         | 7.8   | -     | -   |

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

HCM 6th TWSC  
6: ARROYO VISTA & EB RAMPS

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections (Two Stage)

| Intersection             |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-------|-------|------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.8                                                                               |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| Movement                 | EBL                                                                               | EBT  | EBR                                                                               | WBL   | WBT   | WBR  | NBL    | NBT                                                                                                                                                                 | NBR                                                                               | SBL    | SBT                                                                                                                                                                     | SBR                                                                                 |
| Lane Configurations      |  |      |  |       |       |      |        |   |  |        |   |  |
| Traffic Vol, veh/h       | 43                                                                                | 0    | 38                                                                                | 0     | 0     | 0    | 2      | 808                                                                                                                                                                 | 1772                                                                              | 0      | 1120                                                                                                                                                                    | 738                                                                                 |
| Future Vol, veh/h        | 43                                                                                | 0    | 38                                                                                | 0     | 0     | 0    | 2      | 808                                                                                                                                                                 | 1772                                                                              | 0      | 1120                                                                                                                                                                    | 738                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0     | 0     | 0    | 0      | 0                                                                                                                                                                   | 0                                                                                 | 0      | 0                                                                                                                                                                       | 0                                                                                   |
| Sign Control             | Stop                                                                              | Stop | Stop                                                                              | Stop  | Stop  | Stop | Free   | Free                                                                                                                                                                | Free                                                                              | Free   | Free                                                                                                                                                                    | Free                                                                                |
| RT Channelized           | -                                                                                 | -    | Free                                                                              | -     | -     | None | -      | -                                                                                                                                                                   | Free                                                                              | -      | -                                                                                                                                                                       | Free                                                                                |
| Storage Length           | 0                                                                                 | -    | 300                                                                               | -     | -     | -    | -      | -                                                                                                                                                                   | 300                                                                               | -      | -                                                                                                                                                                       | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 1    | -                                                                                 | -     | 16979 | -    | -      | 0                                                                                                                                                                   | -                                                                                 | -      | 0                                                                                                                                                                       | -                                                                                   |
| Grade, %                 | -                                                                                 | 0    | -                                                                                 | -     | 0     | -    | -      | 0                                                                                                                                                                   | -                                                                                 | -      | 0                                                                                                                                                                       | -                                                                                   |
| Peak Hour Factor         | 93                                                                                | 93   | 93                                                                                | 93    | 93    | 93   | 93     | 93                                                                                                                                                                  | 93                                                                                | 93     | 93                                                                                                                                                                      | 93                                                                                  |
| Heavy Vehicles, %        | 19                                                                                | 19   | 19                                                                                | 2     | 2     | 2    | 4      | 4                                                                                                                                                                   | 4                                                                                 | 3      | 3                                                                                                                                                                       | 3                                                                                   |
| Mvmt Flow                | 46                                                                                | 0    | 41                                                                                | 0     | 0     | 0    | 2      | 869                                                                                                                                                                 | 1905                                                                              | 0      | 1204                                                                                                                                                                    | 794                                                                                 |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| Major/Minor              | Minor2                                                                            |      |                                                                                   |       |       |      | Major1 |                                                                                                                                                                     |                                                                                   | Major2 |                                                                                                                                                                         |                                                                                     |
| Conflicting Flow All     | 1643                                                                              | -    | -                                                                                 |       |       |      | 1204   | 0                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | 0                                                                                   |
| Stage 1                  | 1204                                                                              | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Stage 2                  | 439                                                                               | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Critical Hdwy            | 7.18                                                                              | -    | -                                                                                 |       |       |      | 4.18   | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Critical Hdwy Stg 1      | 6.18                                                                              | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Critical Hdwy Stg 2      | 6.18                                                                              | -    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Follow-up Hdwy           | 3.69                                                                              | -    | -                                                                                 |       |       |      | 2.24   | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Pot Cap-1 Maneuver       | 76                                                                                | 0    | 0                                                                                 |       |       |      | 564    | -                                                                                                                                                                   | 0                                                                                 | 0      | -                                                                                                                                                                       | 0                                                                                   |
| Stage 1                  | 215                                                                               | 0    | 0                                                                                 |       |       |      | -      | -                                                                                                                                                                   | 0                                                                                 | 0      | -                                                                                                                                                                       | 0                                                                                   |
| Stage 2                  | 570                                                                               | 0    | 0                                                                                 |       |       |      | -      | -                                                                                                                                                                   | 0                                                                                 | 0      | -                                                                                                                                                                       | 0                                                                                   |
| Platoon blocked, %       |                                                                                   |      |                                                                                   |       |       |      |        | -                                                                                                                                                                   |                                                                                   |        | -                                                                                                                                                                       |                                                                                     |
| Mov Cap-1 Maneuver       | 75                                                                                | 0    | -                                                                                 |       |       |      | 564    | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Mov Cap-2 Maneuver       | 167                                                                               | 0    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Stage 1                  | 213                                                                               | 0    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
| Stage 2                  | 570                                                                               | 0    | -                                                                                 |       |       |      | -      | -                                                                                                                                                                   | -                                                                                 | -      | -                                                                                                                                                                       | -                                                                                   |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| Approach                 | EB                                                                                |      |                                                                                   |       |       |      | NB     |                                                                                                                                                                     |                                                                                   | SB     |                                                                                                                                                                         |                                                                                     |
| HCM Control Delay, s     | 34.6                                                                              |      |                                                                                   |       |       |      | 0      |                                                                                                                                                                     |                                                                                   | 0      |                                                                                                                                                                         |                                                                                     |
| HCM LOS                  | D                                                                                 |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
|                          |                                                                                   |      |                                                                                   |       |       |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT  | EBLn1                                                                             | EBLn2 | SBT   |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| Capacity (veh/h)         | 564                                                                               | -    | 167                                                                               | -     | -     |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| HCM Lane V/C Ratio       | 0.004                                                                             | -    | 0.277                                                                             | -     | -     |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| HCM Control Delay (s)    | 11.4                                                                              | -    | 34.6                                                                              | 0     | -     |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| HCM Lane LOS             | B                                                                                 | -    | D                                                                                 | A     | -     |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -    | 1.1                                                                               | -     | -     |      |        |                                                                                                                                                                     |                                                                                   |        |                                                                                                                                                                         |                                                                                     |

HCM 6th TWSC  
6: ARROYO VISTA & EB RAMPS

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections (Two Stage)

| Intersection             |      |      |      |      |       |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|-------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 11   |      |      |      |       |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↰    |      | ↱    |      |       |      |      | ↰↱   | ↱    |      | ↰↱   | ↱    |
| Traffic Vol, veh/h       | 45   | 0    | 91   | 0    | 0     | 0    | 0    | 738  | 800  | 0    | 2295 | 282  |
| Future Vol, veh/h        | 45   | 0    | 91   | 0    | 0     | 0    | 0    | 738  | 800  | 0    | 2295 | 282  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop  | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | Free | -    | -     | None | -    | -    | Free | -    | -    | Free |
| Storage Length           | 0    | -    | 300  | -    | -     | -    | -    | -    | 300  | -    | -    | 0    |
| Veh in Median Storage, # | -    | 1    | -    | -    | 16979 | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0     | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90    | 90   | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 31   | 31   | 31   | 2    | 2     | 2    | 6    | 6    | 6    | 2    | 2    | 2    |
| Mvmt Flow                | 50   | 0    | 101  | 0    | 0     | 0    | 0    | 820  | 889  | 0    | 2550 | 313  |

| Major/Minor          | Minor2 |   |   | Major1 |   |   | Major2 |   |   |
|----------------------|--------|---|---|--------|---|---|--------|---|---|
| Conflicting Flow All | 2960   | - | - | -      | 0 | - | -      | - | 0 |
| Stage 1              | 2550   | - | - | -      | - | - | -      | - | - |
| Stage 2              | 410    | - | - | -      | - | - | -      | - | - |
| Critical Hdwy        | 7.42   | - | - | -      | - | - | -      | - | - |
| Critical Hdwy Stg 1  | 6.42   | - | - | -      | - | - | -      | - | - |
| Critical Hdwy Stg 2  | 6.42   | - | - | -      | - | - | -      | - | - |
| Follow-up Hdwy       | 3.81   | - | - | -      | - | - | -      | - | - |
| Pot Cap-1 Maneuver   | ~ 7    | 0 | 0 | 0      | - | 0 | 0      | - | 0 |
| Stage 1              | ~ 29   | 0 | 0 | 0      | - | 0 | 0      | - | 0 |
| Stage 2              | 561    | 0 | 0 | 0      | - | 0 | 0      | - | 0 |
| Platoon blocked, %   |        |   |   |        | - |   |        | - |   |
| Mov Cap-1 Maneuver   | ~ 7    | 0 | - | -      | - | - | -      | - | - |
| Mov Cap-2 Maneuver   | ~ 26   | 0 | - | -      | - | - | -      | - | - |
| Stage 1              | ~ 29   | 0 | - | -      | - | - | -      | - | - |
| Stage 2              | 561    | 0 | - | -      | - | - | -      | - | - |

| Approach               | EB    | NB | SB |
|------------------------|-------|----|----|
| HCM Control Delay, s\$ | 754.8 | 0  | 0  |
| HCM LOS                | F     |    |    |

| Minor Lane/Major Mvmt | NBT | EBLn1    | EBLn2 | SBT |
|-----------------------|-----|----------|-------|-----|
| Capacity (veh/h)      | -   | 26       | -     | -   |
| HCM Lane V/C Ratio    | -   | 1.923    | -     | -   |
| HCM Control Delay (s) | -   | \$ 754.8 | 0     | -   |
| HCM Lane LOS          | -   | F        | A     | -   |
| HCM 95th %tile Q(veh) | -   | 6.1      | -     | -   |

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

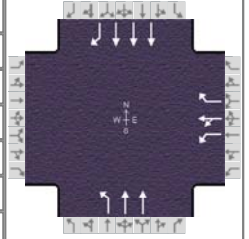
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | 98th & I -40 WB |
| Project Description | AM 2030 Build   |

## Intersection Information

|                 |                    |
|-----------------|--------------------|
| Duration, h     | 1.000              |
| Area Type       | Other              |
| PHF             | 1.00               |
| Analysis Period | 1> 7:00            |
| File Name       | 98th_I-40WB_AM.xus |



## Demand Information

|                     | EB |   |   | WB  |   |     | NB |     |   | SB |      |    |
|---------------------|----|---|---|-----|---|-----|----|-----|---|----|------|----|
| Approach Movement   | L  | T | R | L   | T | R   | L  | T   | R | L  | T    | R  |
| Demand ( v ), veh/h |    |   |   | 572 | 2 | 192 | 97 | 898 |   |    | 1213 | 46 |

## Signal Information

|               |       |                 |      |     |     |     |  |  |  |  |  |  |
|---------------|-------|-----------------|------|-----|-----|-----|--|--|--|--|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2    |     |     |     |  |  |  |  |  |  |
| Offset, s     | 0     | Reference Point | End  |     |     |     |  |  |  |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On   |     |     |     |  |  |  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On   |     |     |     |  |  |  |  |  |  |
| Green         | 5.3   | 63.1            | 43.6 | 0.0 | 0.0 | 0.0 |  |  |  |  |  |  |
| Yellow        | 4.5   | 4.5             | 4.5  | 0.0 | 0.0 | 0.0 |  |  |  |  |  |  |
| Red           | 2.0   | 1.0             | 1.5  | 0.0 | 0.0 | 0.0 |  |  |  |  |  |  |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|---------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                  |     |     |     | 4    | 1    | 6    |     | 2    |
| Case Number                     |     |     |     | 9.0  | 1.0  | 4.0  |     | 7.3  |
| Phase Duration, s               |     |     |     | 49.6 | 11.8 | 80.4 |     | 68.6 |
| Change Period, ( Y+R c ), s     |     |     |     | 6.0  | 6.5  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 4.2  | 4.1  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 41.9 | 5.4  |      |     |      |
| Green Extension Time ( g e ), s |     |     |     | 1.6  | 0.1  | 0.0  |     | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 | 0.97 |      |     |      |
| Max Out Probability             |     |     |     | 0.75 | 0.14 |      |     |      |

## Movement Group Results

|                                                 | EB  |   |   | WB    |       |       | NB    |       |   | SB    |   |       |
|-------------------------------------------------|-----|---|---|-------|-------|-------|-------|-------|---|-------|---|-------|
| Approach Movement                               | L   | T | R | L     | T     | R     | L     | T     | R | L     | T | R     |
| Assigned Movement                               |     |   |   | 7     | 4     | 14    | 1     | 6     |   | 2     |   | 12    |
| Adjusted Flow Rate ( v ), veh/h                 |     |   |   | 572   | 2     | 192   | 97    | 898   |   | 1213  |   | 46    |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |     |   |   | 1810  | 1900  | 1610  | 1810  | 1809  |   | 1725  |   | 1610  |
| Queue Service Time ( g s ), s                   |     |   |   | 39.9  | 0.1   | 11.7  | 3.4   | 18.2  |   | 20.5  |   | 2.0   |
| Cycle Queue Clearance Time ( g c ), s           |     |   |   | 39.9  | 0.1   | 11.7  | 3.4   | 18.2  |   | 20.5  |   | 2.0   |
| Green Ratio ( g/C )                             |     |   |   | 0.34  | 0.34  | 0.34  | 0.54  | 0.58  |   | 0.49  |   | 0.49  |
| Capacity ( c ), veh/h                           |     |   |   | 607   | 637   | 540   | 283   | 2085  |   | 2512  |   | 782   |
| Volume-to-Capacity Ratio ( X )                  |     |   |   | 0.943 | 0.003 | 0.356 | 0.343 | 0.431 |   | 0.483 |   | 0.059 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |     |   |   | 759.1 | 1.9   | 203.4 | 64.3  | 298.5 |   | 326.3 |   | 34.4  |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |     |   |   | 30.4  | 0.1   | 8.1   | 2.6   | 11.9  |   | 13.1  |   | 1.4   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |     |   |   | 0.00  | 0.00  | 0.00  | 0.64  | 0.00  |   | 0.00  |   | 0.00  |
| Uniform Delay ( d 1 ), s/veh                    |     |   |   | 42.0  | 28.8  | 32.6  | 16.9  | 15.5  |   | 22.5  |   | 17.7  |
| Incremental Delay ( d 2 ), s/veh                |     |   |   | 30.1  | 0.0   | 0.4   | 0.7   | 0.7   |   | 0.7   |   | 0.1   |
| Initial Queue Delay ( d 3 ), s/veh              |     |   |   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |   | 0.0   |   | 0.0   |
| Control Delay ( d ), s/veh                      |     |   |   | 72.2  | 28.8  | 33.0  | 17.6  | 16.2  |   | 23.2  |   | 17.9  |
| Level of Service ( LOS )                        |     |   |   | E     | C     | C     | B     | B     |   | C     |   | B     |
| Approach Delay, s/veh / LOS                     | 0.0 |   |   | 62.2  |       | E     | 16.3  |       | B | 23.0  |   | C     |
| Intersection Delay, s/veh / LOS                 |     |   |   | 30.7  |       |       |       |       |   | C     |   |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.48 |  | B | 2.48 |  | B | 1.90 |  | B | 1.39 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 1.75 |  | B | 1.31 |  | A | 1.18 |  | A |

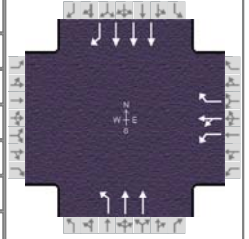
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | 98th & I -40 WB |
| Project Description | PM 2030 Build   |

## Intersection Information

|                 |                    |
|-----------------|--------------------|
| Duration, h     | 1.000              |
| Area Type       | Other              |
| PHF             | 1.00               |
| Analysis Period | 1> 16:00           |
| File Name       | 98th_I-40WB_PM.xus |



## Demand Information

|                       | EB |   |   | WB   |   |     | NB |     |   | SB |     |    |
|-----------------------|----|---|---|------|---|-----|----|-----|---|----|-----|----|
| Approach Movement     | L  | T | R | L    | T | R   | L  | T   | R | L  | T   | R  |
| Demand ( $v$ ), veh/h |    |   |   | 1897 | 1 | 577 | 92 | 706 |   |    | 836 | 68 |

## Signal Information

|               |       |                 |     |  |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |  |        |     |      |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |  | Green  | 6.0 | 21.8 | 64.2 | 0.0 | 0.0 | 0.0 |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  |  | Yellow | 4.5 | 4.5  | 4.5  | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |  | Red    | 2.0 | 1.0  | 1.5  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                   | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|-----------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                    |     |     |     | 4    | 1    | 6    |     | 2    |
| Case Number                       |     |     |     | 9.0  | 1.0  | 4.0  |     | 7.3  |
| Phase Duration, s                 |     |     |     | 70.2 | 12.5 | 39.8 |     | 27.3 |
| Change Period, ( $Y+R_c$ ), s     |     |     |     | 6.0  | 6.5  | 5.5  |     | 5.5  |
| Max Allow Headway ( $MAH$ ), s    |     |     |     | 4.1  | 4.1  | 0.0  |     | 0.0  |
| Queue Clearance Time ( $g_s$ ), s |     |     |     | 52.6 | 6.3  |      |     |      |
| Green Extension Time ( $g_e$ ), s |     |     |     | 11.6 | 0.1  | 0.0  |     | 0.0  |
| Phase Call Probability            |     |     |     | 1.00 | 0.94 |      |     |      |
| Max Out Probability               |     |     |     | 0.68 | 0.05 |      |     |      |

## Movement Group Results

|                                                   | EB  |   |   | WB    |       |     | NB    |       |   | SB    |     |   |
|---------------------------------------------------|-----|---|---|-------|-------|-----|-------|-------|---|-------|-----|---|
| Approach Movement                                 | L   | T | R | L     | T     | R   | L     | T     | R | L     | T   | R |
| Assigned Movement                                 |     |   |   | 7     | 4     | 14  | 1     | 6     |   | 2     | 12  |   |
| Adjusted Flow Rate ( $v$ ), veh/h                 |     |   |   | 949   | 950   | 577 | 92    | 706   |   | 836   | 68  |   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   |     |   |   | 1810  | 1810  |     | 1810  | 1809  |   | 1725  |     |   |
| Queue Service Time ( $g_s$ ), s                   |     |   |   | 50.5  | 50.6  |     | 4.3   | 18.4  |   | 17.0  |     |   |
| Cycle Queue Clearance Time ( $g_c$ ), s           |     |   |   | 50.5  | 50.6  |     | 4.3   | 18.4  |   | 17.0  |     |   |
| Green Ratio ( $g/C$ )                             |     |   |   | 0.58  | 0.58  |     | 0.27  | 0.31  |   | 0.20  |     |   |
| Capacity ( $c$ ), veh/h                           |     |   |   | 1056  | 1056  |     | 194   | 1128  |   | 1024  |     |   |
| Volume-to-Capacity Ratio ( $X$ )                  |     |   |   | 0.898 | 0.899 |     | 0.475 | 0.626 |   | 0.816 |     |   |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  |     |   |   | 747.6 | 749.1 |     | 87.8  | 325   |   | 310.7 |     |   |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) |     |   |   | 29.9  | 30.0  |     | 3.5   | 13.0  |   | 12.4  |     |   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  |     |   |   | 0.00  | 0.00  |     | 0.88  | 0.00  |   | 0.00  |     |   |
| Uniform Delay ( $d_1$ ), s/veh                    |     |   |   | 20.0  | 20.1  |     | 32.7  | 32.4  |   | 42.2  |     |   |
| Incremental Delay ( $d_2$ ), s/veh                |     |   |   | 10.3  | 10.4  |     | 1.8   | 2.7   |   | 7.6   |     |   |
| Initial Queue Delay ( $d_3$ ), s/veh              |     |   |   | 0.0   | 0.0   |     | 0.0   | 0.0   |   | 0.0   |     |   |
| Control Delay ( $d$ ), s/veh                      |     |   |   | 30.4  | 30.5  | 0.0 | 34.5  | 35.0  |   | 49.8  | 0.0 |   |
| Level of Service (LOS)                            |     |   |   | C     | C     | A   | C     | D     |   | D     | A   |   |
| Approach Delay, s/veh / LOS                       | 0.0 |   |   | 23.3  |       | C   | 35.0  |       | C | 46.1  |     | D |
| Intersection Delay, s/veh / LOS                   |     |   |   | 30.5  |       |     |       |       |   | C     |     |   |

## Multimodal Results

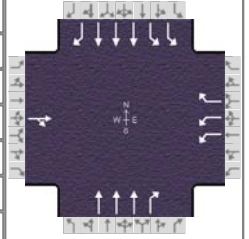
|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.47 |  | B | 2.48 |  | B | 1.93 |  | B | 1.42 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 4.57 |  | E | 1.15 |  | A | 0.98 |  | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |               |                   |
|---------------------|-----------------------|---------------|-------------------|
| Agency              | Bohannon Huston       |               |                   |
| Analyst             | CDV                   | Analysis Date | 11/27/2019        |
| Jurisdiction        |                       | Time Period   | AM Peak           |
| Urban Street        |                       | Analysis Year | 2030              |
| Intersection        | Arroyo Vista & Ladera | File Name     | Arroyo Vista_Lade |
| Project Description | AM 2030 Build         |               |                   |

## Intersection Information



## Demand Information

|                       | EB |   |   | WB  |   |     | NB |     |     | SB  |     |   |
|-----------------------|----|---|---|-----|---|-----|----|-----|-----|-----|-----|---|
| Approach Movement     | L  | T | R | L   | T | R   | L  | T   | R   | L   | T   | R |
| Demand ( $v$ ), veh/h |    | 0 | 0 | 474 |   | 103 |    | 466 | 428 | 222 | 857 | 0 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|-----|--|--|
| Cycle, s      | 60.0  | Reference Phase | 2   |        |      |     |      |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |     |  |  |
| Uncoordinated | Yes   | Simult. Gap E/W | On  | Green  | 13.2 | 7.9 | 21.0 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0  | 4.0 | 4.0  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 2.0  | 2.0 | 2.0  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                   | EBL | EBT | WBL  | WBT  | NBL | NBT  | SBL  | SBT  |
|-----------------------------------|-----|-----|------|------|-----|------|------|------|
| Assigned Phase                    |     | 2   | 1    | 6    |     | 4    | 3    | 8    |
| Case Number                       |     | 8.3 | 1.0  | 3.0  |     | 7.3  | 2.0  | 3.0  |
| Phase Duration, s                 |     | 0.0 | 19.2 | 19.2 |     | 27.0 | 13.9 | 40.8 |
| Change Period, ( $Y+R_c$ ), s     |     | 6.0 | 6.0  | 6.0  |     | 6.0  | 6.0  | 6.0  |
| Max Allow Headway ( $MAH$ ), s    |     | 0.0 | 5.1  | 5.4  |     | 5.1  | 5.1  | 5.1  |
| Queue Clearance Time ( $g_s$ ), s |     |     | 10.0 | 5.5  |     | 17.9 | 5.8  | 7.5  |
| Green Extension Time ( $g_e$ ), s |     | 0.0 | 3.1  | 0.7  |     | 3.1  | 1.3  | 11.8 |
| Phase Call Probability            |     |     | 1.00 | 1.00 |     | 1.00 | 0.98 | 1.00 |
| Max Out Probability               |     |     | 0.03 | 0.00 |     | 0.91 | 0.00 | 0.60 |

## Movement Group Results

|                                                   | EB   |       |    | WB    |   |     | NB |       |     | SB |       |       |
|---------------------------------------------------|------|-------|----|-------|---|-----|----|-------|-----|----|-------|-------|
| Approach Movement                                 | L    | T     | R  | L     | T | R   | L  | T     | R   | L  | T     | R     |
| Assigned Movement                                 |      | 2     | 12 |       |   | 16  |    | 4     | 14  |    | 3     | 8     |
| Adjusted Flow Rate ( $v$ ), veh/h                 |      | 0     |    | 515   |   | 112 |    | 507   | 465 |    | 241   | 932   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   |      | 0     |    | 1757  |   |     |    | 1725  |     |    | 1757  | 1725  |
| Queue Service Time ( $g_s$ ), s                   |      | 0.0   |    | 8.0   |   |     |    | 4.2   |     |    | 3.8   | 5.5   |
| Cycle Queue Clearance Time ( $g_c$ ), s           |      | 0.0   |    | 8.0   |   |     |    | 4.2   |     |    | 3.8   | 5.5   |
| Green Ratio ( $g/C$ )                             |      |       |    | 0.22  |   |     |    | 0.35  |     |    | 0.13  | 0.58  |
| Capacity ( $c$ ), veh/h                           |      |       |    | 1012  |   |     |    | 1810  |     |    | 460   | 3004  |
| Volume-to-Capacity Ratio ( $X$ )                  |      | 0.000 |    | 0.509 |   |     |    | 0.280 |     |    | 0.525 | 0.310 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  |      | 0     |    | 137.2 |   |     |    | 66.1  |     |    | 70.2  | 67    |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) |      | 0.0   |    | 5.5   |   |     |    | 2.6   |     |    | 2.8   | 2.7   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  |      | 0.00  |    | 0.00  |   |     |    | 0.00  |     |    | 0.22  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    |      |       |    | 21.3  |   |     |    | 14.1  |     |    | 24.4  | 6.4   |
| Incremental Delay ( $d_2$ ), s/veh                |      | 0.0   |    | 0.6   |   |     |    | 0.1   |     |    | 1.3   | 0.1   |
| Initial Queue Delay ( $d_3$ ), s/veh              |      | 0.0   |    | 0.0   |   |     |    | 0.0   |     |    | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      |      |       |    | 21.9  |   | 0.0 |    | 14.2  | 0.0 |    | 25.7  | 6.5   |
| Level of Service (LOS)                            |      |       |    | C     |   | A   |    | B     | A   |    | C     | A     |
| Approach Delay, s/veh / LOS                       | 0.0  |       |    | 18.0  |   | B   |    | 7.4   | A   |    | 10.5  | B     |
| Intersection Delay, s/veh / LOS                   | 11.1 |       |    |       |   |     | B  |       |     |    |       |       |

## Multimodal Results

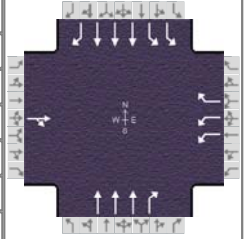
|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.60 | C | 2.82 | C | 2.26 | B | 1.64 | B |
| Bicycle LOS Score / LOS    | 0.49 | A |      | F | 1.02 | A | 1.13 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |               |                   |
|---------------------|-----------------------|---------------|-------------------|
| Agency              | Bohannon Huston       |               |                   |
| Analyst             | CDV                   | Analysis Date | 11/27/2019        |
| Jurisdiction        |                       | Time Period   | PM Peak           |
| Urban Street        |                       | Analysis Year | 2030              |
| Intersection        | Arroyo Vista & Ladera | File Name     | Arroyo Vista_Lade |
| Project Description | PM 2030 Build         |               |                   |

## Intersection Information



## Demand Information

|                     | EB |   |   | WB  |   |     | NB |      |     | SB  |     |   |
|---------------------|----|---|---|-----|---|-----|----|------|-----|-----|-----|---|
| Approach Movement   | L  | T | R | L   | T | R   | L  | T    | R   | L   | T   | R |
| Demand ( v ), veh/h |    | 0 | 0 | 393 |   | 329 |    | 1040 | 454 | 237 | 639 | 0 |

## Signal Information

|               |       |                 |     |        |      |     |     |      |     |     |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|-----|------|-----|-----|--|--|
| Cycle, s      | 69.4  | Reference Phase | 2   |        |      |     |     |      |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |     |      |     |     |  |  |
| Uncoordinated | Yes   | Simult. Gap E/W | On  | Green  | 12.1 | 0.9 | 8.2 | 24.3 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.0  | 4.0 | 4.0 | 4.0  | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 2.0  | 2.0 | 2.0 | 2.0  | 0.0 | 0.0 |  |  |

## Timer Results

|                                            | EBL | EBT | WBL  | WBT  | NBL | NBT  | SBL  | SBT  |
|--------------------------------------------|-----|-----|------|------|-----|------|------|------|
| Assigned Phase                             |     | 2   | 1    | 6    |     | 4    | 3    | 8    |
| Case Number                                |     | 8.3 | 1.0  | 3.0  |     | 7.3  | 2.0  | 3.0  |
| Phase Duration, s                          |     | 6.9 | 18.1 | 25.0 |     | 30.3 | 14.2 | 44.4 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 6.0 | 6.0  | 6.0  |     | 6.0  | 6.0  | 6.0  |
| Max Allow Headway ( MAH ), s               |     | 0.0 | 5.1  | 5.4  |     | 5.1  | 5.1  | 5.1  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     |     | 9.5  | 16.4 |     | 22.0 | 6.9  | 6.8  |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.0 | 2.5  | 2.6  |     | 2.3  | 1.4  | 14.2 |
| Phase Call Probability                     |     |     | 1.00 | 1.00 |     | 1.00 | 0.99 | 1.00 |
| Max Out Probability                        |     |     | 0.01 | 0.00 |     | 1.00 | 0.00 | 0.73 |

## Movement Group Results

|                                                  | EB   |       |    | WB    |   |     | NB   |       |     | SB   |       |       |
|--------------------------------------------------|------|-------|----|-------|---|-----|------|-------|-----|------|-------|-------|
| Approach Movement                                | L    | T     | R  | L     | T | R   | L    | T     | R   | L    | T     | R     |
| Assigned Movement                                |      | 2     | 12 |       |   | 16  |      | 4     | 14  |      | 3     | 8     |
| Adjusted Flow Rate ( v ), veh/h                  |      | 0     |    | 427   |   | 358 |      | 1130  | 493 |      | 258   | 695   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    |      | 0     |    | 1757  |   |     |      | 1725  |     |      | 1757  | 1725  |
| Queue Service Time ( g <sub>s</sub> ), s         |      | 0.0   |    | 7.5   |   |     |      | 12.6  |     |      | 4.9   | 4.8   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s |      | 0.0   |    | 7.5   |   |     |      | 12.6  |     |      | 4.9   | 4.8   |
| Green Ratio ( g/C )                              |      |       |    | 0.22  |   |     |      | 0.35  |     |      | 0.12  | 0.55  |
| Capacity ( c ), veh/h                            |      |       |    | 860   |   |     |      | 1808  |     |      | 414   | 2864  |
| Volume-to-Capacity Ratio ( X )                   |      | 0.000 |    | 0.497 |   |     |      | 0.625 |     |      | 0.622 | 0.242 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   |      | 0     |    | 134.2 |   |     |      | 205.9 |     |      | 92.7  | 67    |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  |      | 0.0   |    | 5.4   |   |     |      | 8.2   |     |      | 3.7   | 2.7   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   |      | 0.00  |    | 0.00  |   |     |      | 0.00  |     |      | 0.29  | 0.00  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          |      |       |    | 24.3  |   |     |      | 18.8  |     |      | 29.2  | 8.0   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      |      | 0.0   |    | 0.6   |   |     |      | 0.7   |     |      | 2.2   | 0.1   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    |      | 0.0   |    | 0.0   |   |     |      | 0.0   |     |      | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       |      |       |    | 25.0  |   | 0.0 |      | 19.6  | 0.0 |      | 31.4  | 8.1   |
| Level of Service ( LOS )                         |      |       |    | C     |   | A   |      | B     | A   |      | C     | A     |
| Approach Delay, s/veh / LOS                      | 0.0  |       |    | 13.6  |   | B   | 13.6 |       | B   | 14.4 |       | B     |
| Intersection Delay, s/veh / LOS                  | 13.8 |       |    |       |   |     | B    |       |     |      |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.59 | C | 2.82 | C | 2.26 | B | 1.65 | B |
| Bicycle LOS Score / LOS    | 0.49 | A |      | F | 1.38 | A | 1.01 | A |

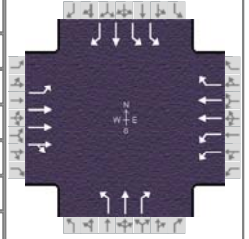
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                             |
|---------------------|-----------------------------|
| Agency              | Bohannon Huston             |
| Analyst             | CDV                         |
| Jurisdiction        |                             |
| Urban Street        |                             |
| Intersection        | Arroyo Vista & Tierra Pi... |
| Project Description | AM 2030 Build               |

## Intersection Information

|                 |                                    |
|-----------------|------------------------------------|
| Duration, h     | 1.000                              |
| Area Type       | Other                              |
| PHF             | 1.00                               |
| Analysis Period | 1> 7:00                            |
| File Name       | Arroyo Vista_Tierra Pintada_AM.xus |



## Demand Information

|                       | EB  |     |   | WB |     |     | NB |   |   | SB  |   |    |
|-----------------------|-----|-----|---|----|-----|-----|----|---|---|-----|---|----|
| Approach Movement     | L   | T   | R | L  | T   | R   | L  | T | R | L   | T | R  |
| Demand ( $v$ ), veh/h | 114 | 816 | 0 | 2  | 341 | 246 | 0  | 2 | 0 | 290 | 4 | 59 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 57.4  | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | Yes   | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|-----|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5   | 2    | 1    | 6    |
| Case Number                       | 1.1  | 4.0  | 2.0  | 3.0  | 2.0 | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 8.3  | 20.6 | 4.1  | 16.3 | 0.0 | 21.8 | 10.9 | 32.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.0  | 5.5  | 4.0  | 5.5  | 4.0 | 6.0  | 4.0  | 6.0  |
| Max Allow Headway ( $MAH$ ), s    | 5.1  | 4.1  | 2.6  | 4.1  | 0.0 | 5.3  | 2.6  | 5.3  |
| Queue Clearance Time ( $g_s$ ), s | 4.7  | 9.1  | 2.0  | 10.4 |     | 2.0  | 6.5  | 3.2  |
| Green Extension Time ( $g_e$ ), s | 0.5  | 1.8  | 0.0  | 0.4  | 0.0 | 0.0  | 0.4  | 0.2  |
| Phase Call Probability            | 0.84 | 1.00 | 0.03 | 1.00 |     | 1.00 | 0.99 | 1.00 |
| Max Out Probability               | 0.00 | 1.00 | 0.00 | 1.00 |     | 0.00 | 0.00 | 0.00 |

## Movement Group Results

|                                                   | EB    |       |       | WB    |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 114   | 816   | 0     | 2     | 341   | 246   | 0     | 2     | 0     | 290   | 4     | 59    |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810  | 1900  | 0     | 1757  | 1809  | 1610  | 1810  | 1900  | 1610  | 1757  | 1900  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 2.7   | 7.1   | 0.0   | 0.0   | 4.8   | 8.4   | 0.0   | 0.0   | 0.0   | 4.5   | 0.1   | 1.2   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 2.7   | 7.1   | 0.0   | 0.0   | 4.8   | 8.4   | 0.0   | 0.0   | 0.0   | 4.5   | 0.1   | 1.2   |
| Green Ratio ( $g/C$ )                             | 0.30  | 0.26  |       | 0.00  | 0.19  | 0.19  |       | 0.28  | 0.28  | 0.12  | 0.47  | 0.47  |
| Capacity ( $c$ ), veh/h                           | 373   | 1498  |       | 6     | 683   | 304   | 3     | 523   | 443   | 423   | 884   | 749   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.306 | 0.545 | 0.000 | 0.326 | 0.499 | 0.809 | 0.000 | 0.004 | 0.000 | 0.685 | 0.005 | 0.079 |
| Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)  | 26.1  | 69.8  | 0     | 0.6   | 47.5  | 100.5 | 0     | 0.4   | 0     | 44.2  | 0.6   | 8.6   |
| Back of Queue ( $Q$ ), veh/ln ( 50 th percentile) | 1.0   | 2.8   | 0.0   | 0.0   | 1.9   | 4.0   | 0.0   | 0.0   | 0.0   | 1.8   | 0.0   | 0.3   |
| Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)  | 0.08  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.14  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 15.5  | 18.2  |       | 28.6  | 20.8  | 22.3  | 0.0   | 15.1  | 0.0   | 24.2  | 8.2   | 8.5   |
| Incremental Delay ( $d_2$ ), s/veh                | 0.7   | 0.4   | 0.0   | 11.3  | 0.6   | 13.9  | 0.0   | 0.0   | 0.0   | 0.7   | 0.0   | 0.1   |
| Initial Queue Delay ( $d_3$ ), 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   |
| Control Delay ( $d$ ), s/veh                      | 16.1  | 18.6  |       | 39.9  | 21.4  | 36.2  | 0.0   | 15.1  | 0.0   | 24.9  | 8.2   | 8.6   |
| Level of Service (LOS)                            | B     | B     |       | D     | C     | D     |       | B     |       | C     | A     | A     |
| Approach Delay, s/veh / LOS                       | 18.3  |       | B     | 27.6  |       | C     | 15.1  |       | B     | 22.0  |       | C     |
| Intersection Delay, s/veh / LOS                   | 21.9  |       |       |       |       |       | C     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.27 |  | B | 2.27 |  | B | 2.69 |  | C | 2.39 |  | B |
| Bicycle LOS Score / LOS    | 1.00 |  | A | 0.97 |  | A | 0.49 |  | A | 1.07 |  | A |

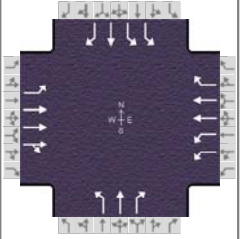
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                             |
|---------------------|-----------------------------|
| Agency              | Bohannon Huston             |
| Analyst             | CDV                         |
| Jurisdiction        |                             |
| Urban Street        |                             |
| Intersection        | Arroyo Vista & Tierra Pi... |
| Project Description | PM 2030 Build               |

## Intersection Information

|                 |                                    |
|-----------------|------------------------------------|
| Duration, h     | 1.000                              |
| Area Type       | Other                              |
| PHF             | 1.00                               |
| Analysis Period | 1> 16:00                           |
| File Name       | Arroyo Vista_Tierra Pintada_PM.xus |



## Demand Information

|                       | EB |     |    | WB |      |     | NB |    |    | SB  |    |     |
|-----------------------|----|-----|----|----|------|-----|----|----|----|-----|----|-----|
| Approach Movement     | L  | T   | R  | L  | T    | R   | L  | T  | R  | L   | T  | R   |
| Demand ( $v$ ), veh/h | 98 | 547 | 57 | 69 | 1012 | 248 | 1  | 21 | 16 | 336 | 89 | 204 |

## Signal Information

|               |       |                 |     |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |
|---------------|-------|-----------------|-----|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Cycle, s      | 70.0  | Reference Phase | 2   |        |  |  |  |  |  |  |  |  |  |
| Offset, s     | 0     | Reference Point | End | Green  | 0.1                                                                               | 4.7                                                                               | 14.6                                                                              | 2.5                                                                               | 0.5                                                                               | 24.1                                                                               |    |    |    |
| Uncoordinated | Yes   | Simult. Gap E/W | On  | Yellow | 3.0                                                                               | 3.0                                                                               | 4.0                                                                               | 3.0                                                                               | 0.0                                                                               | 4.0                                                                                |    |    |    |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0                                                                               | 1.0                                                                               | 2.0                                                                               | 1.0                                                                               | 0.0                                                                               | 1.5                                                                                |    |    |    |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 1.1  | 4.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 7.0  | 30.1 | 6.5  | 29.6 | 4.1  | 20.6 | 12.8 | 29.4 |
| Change Period, ( $Y+R_c$ ), s     | 4.0  | 5.5  | 4.0  | 5.5  | 4.0  | 6.0  | 4.0  | 6.0  |
| Max Allow Headway ( $MAH$ ), s    | 5.1  | 4.1  | 2.6  | 4.1  | 2.6  | 5.3  | 2.6  | 5.3  |
| Queue Clearance Time ( $g_s$ ), s | 4.5  | 7.6  | 3.4  | 19.8 | 2.0  | 2.6  | 8.5  | 8.8  |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.4  | 0.0  | 4.3  | 0.0  | 0.2  | 0.3  | 1.1  |
| Phase Call Probability            | 0.85 | 1.00 | 0.74 | 1.00 | 0.02 | 1.00 | 1.00 | 1.00 |
| Max Out Probability               | 1.00 | 1.00 | 1.00 | 0.56 | 1.00 | 0.05 | 0.04 | 0.49 |

## Movement Group Results

| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L     | T     | R     | L     | T     | R     |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 98    | 407   | 197   | 69    | 1012  | 248   | 1     | 21    | 16    | 336   | 89    | 204   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810  | 1900  | 1806  | 1757  | 1809  | 1610  | 1810  | 1900  | 1610  | 1757  | 1900  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 2.5   | 5.4   | 5.6   | 1.4   | 17.8  | 8.4   | 0.0   | 0.6   | 0.6   | 6.5   | 2.3   | 6.8   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 2.5   | 5.4   | 5.6   | 1.4   | 17.8  | 8.4   | 0.0   | 0.6   | 0.6   | 6.5   | 2.3   | 6.8   |
| Green Ratio ( $g/C$ )                             | 0.39  | 0.35  | 0.35  | 0.04  | 0.34  | 0.34  | 0.00  | 0.21  | 0.21  | 0.13  | 0.33  | 0.33  |
| Capacity ( $c$ ), veh/h                           | 231   | 1337  | 635   | 124   | 1246  | 555   | 3     | 397   | 337   | 440   | 634   | 537   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.424 | 0.304 | 0.310 | 0.555 | 0.812 | 0.447 | 0.387 | 0.053 | 0.048 | 0.763 | 0.140 | 0.380 |
| Back of Queue ( $Q$ ), ft/ln ( 50 th percentile)  | 25.6  | 54.9  | 53.7  | 14.4  | 181.1 | 72.9  | 1     | 6.7   | 5.1   | 66.1  | 23.6  | 59.9  |
| Back of Queue ( $Q$ ), veh/ln ( 50 th percentile) | 1.0   | 2.2   | 2.1   | 0.6   | 7.2   | 2.9   | 0.0   | 0.3   | 0.2   | 2.6   | 0.9   | 2.4   |
| Queue Storage Ratio ( $RQ$ ) ( 50 th percentile)  | 0.08  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.01  | 0.00  | 0.03  | 0.21  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 16.6  | 16.5  | 16.5  | 33.2  | 20.9  | 17.8  | 35.0  | 22.2  | 22.1  | 29.6  | 16.3  | 17.8  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 0.1   | 0.3   | 1.4   | 2.6   | 0.6   | 34.2  | 0.1   | 0.1   | 1.1   | 0.1   | 0.6   |
| Initial Queue Delay ( $d_3$ ), 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   |
| Control Delay ( $d$ ), s/veh                      | 18.4  | 16.6  | 16.8  | 34.7  | 23.5  | 18.4  | 69.1  | 22.2  | 22.2  | 30.7  | 16.5  | 18.4  |
| Level of Service (LOS)                            | B     | B     | B     | C     | C     | B     | E     | C     | C     | C     | B     | B     |
| Approach Delay, s/veh / LOS                       | 16.9  | B     | B     | 23.1  | C     | C     | 23.5  | C     | C     | 24.7  | C     | C     |
| Intersection Delay, s/veh / LOS                   | 21.9  |       |       |       |       |       | C     |       |       |       |       |       |

## Multimodal Results

|                            |      |   |      |   |      |   |      |   |
|----------------------------|------|---|------|---|------|---|------|---|
|                            |      |   |      |   |      |   |      |   |
| Pedestrian LOS Score / LOS | 2.26 | B | 2.27 | B | 2.71 | C | 2.42 | B |
| Bicycle LOS Score / LOS    | 0.87 | A | 1.58 | B | 0.55 | A | 1.53 | B |

| Intersection             |        |                                                                                   |                                                                                   |      |                                                                                   |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1.7    |                                                                                   |                                                                                   |      |                                                                                   |       |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR   |
| Lane Configurations      |        |  |  |      |  |       |
| Traffic Vol, veh/h       | 0      | 724                                                                               | 317                                                                               | 20   | 57                                                                                | 0     |
| Future Vol, veh/h        | 0      | 724                                                                               | 317                                                                               | 20   | 57                                                                                | 0     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0     |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop  |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None | -                                                                                 | None  |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -     |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -     |
| Peak Hour Factor         | 85     | 85                                                                                | 85                                                                                | 85   | 85                                                                                | 85    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2     |
| Mvmt Flow                | 0      | 852                                                                               | 373                                                                               | 24   | 67                                                                                | 0     |
| Major/Minor              | Major1 | Major2                                                                            | Minor2                                                                            |      |                                                                                   |       |
| Conflicting Flow All     | 397    | 0                                                                                 | -                                                                                 | 0    | 1237                                                                              | 385   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 385                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 852                                                                               | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -    | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -    | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -    | 5.42                                                                              | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -    | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | 1162   | -                                                                                 | -                                                                                 | -    | 194                                                                               | 663   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 688                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 418                                                                               | -     |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -    |                                                                                   |       |
| Mov Cap-1 Maneuver       | 1162   | -                                                                                 | -                                                                                 | -    | 194                                                                               | 663   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -    | 194                                                                               | -     |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 688                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 418                                                                               | -     |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB   |                                                                                   |       |
| HCM Control Delay, s     | 0      | 0                                                                                 |                                                                                   | 33.1 |                                                                                   |       |
| HCM LOS                  |        |                                                                                   |                                                                                   | D    |                                                                                   |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |       |
| Capacity (veh/h)         | 1162   | -                                                                                 | -                                                                                 | -    | 194                                                                               |       |
| HCM Lane V/C Ratio       | -      | -                                                                                 | -                                                                                 | -    | 0.346                                                                             |       |
| HCM Control Delay (s)    | 0      | -                                                                                 | -                                                                                 | -    | 33.1                                                                              |       |
| HCM Lane LOS             | A      | -                                                                                 | -                                                                                 | -    | D                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -    | 1.5                                                                               |       |

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.5    |                                                                                   |                                                                                   |        |                                                                                   |       |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR   |
| Lane Configurations      |        |  |  |        |  |       |
| Traffic Vol, veh/h       | 0      | 490                                                                               | 803                                                                               | 65     | 37                                                                                | 0     |
| Future Vol, veh/h        | 0      | 490                                                                               | 803                                                                               | 65     | 37                                                                                | 0     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0     |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop  |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None   | -                                                                                 | None  |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -      | 2                                                                                 | -     |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Peak Hour Factor         | 85     | 85                                                                                | 85                                                                                | 85     | 85                                                                                | 85    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2     |
| Mvmt Flow                | 0      | 576                                                                               | 945                                                                               | 76     | 44                                                                                | 0     |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |       |
| Conflicting Flow All     | 1021   | 0                                                                                 | -                                                                                 | 0      | 1559                                                                              | 983   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 983                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 576                                                                               | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -      | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -      | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | 680    | -                                                                                 | -                                                                                 | -      | 124                                                                               | 302   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 362                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 562                                                                               | -     |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |       |
| Mov Cap-1 Maneuver       | 680    | -                                                                                 | -                                                                                 | -      | 124                                                                               | 302   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 307                                                                               | -     |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 362                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 562                                                                               | -     |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |       |
| HCM Control Delay, s     | 0      | 0                                                                                 |                                                                                   | 18.7   |                                                                                   |       |
| HCM LOS                  |        |                                                                                   |                                                                                   | C      |                                                                                   |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |       |
| Capacity (veh/h)         | 680    | -                                                                                 | -                                                                                 | -      | 307                                                                               |       |
| HCM Lane V/C Ratio       | -      | -                                                                                 | -                                                                                 | -      | 0.142                                                                             |       |
| HCM Control Delay (s)    | 0      | -                                                                                 | -                                                                                 | -      | 18.7                                                                              |       |
| HCM Lane LOS             | A      | -                                                                                 | -                                                                                 | -      | C                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 0.5                                                                               |       |

HCM 6th TWSC  
10: ARROYO VISTA & INSPIRATION WEST

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections

| Intersection             |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.7                                                                               |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 724                                                                               | 317                                                                               | 20   | 57                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 724                                                                               | 317                                                                               | 20   | 57                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 150                                                                               | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 2                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 85                                                                                | 85                                                                                | 85                                                                                | 85   | 85                                                                                | 85   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 852                                                                               | 373                                                                               | 24   | 67                                                                                | 0    |
|                          |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2                                                                            | Minor2                                                                            |      |                                                                                   |      |
| Conflicting Flow All     | 397                                                                               | 0                                                                                 | -                                                                                 | 0    | 811                                                                               | 199  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 385                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 426                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -    | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -    | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -    | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -    | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 1158                                                                              | -                                                                                 | -                                                                                 | -    | 317                                                                               | 809  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 657                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 627                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -    |                                                                                   |      |
| Mov Cap-1 Maneuver       | 1158                                                                              | -                                                                                 | -                                                                                 | -    | 317                                                                               | 809  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -    | 506                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 657                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 627                                                                               | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB   |                                                                                   |      |
| HCM Control Delay, s     | 0                                                                                 | 0                                                                                 |                                                                                   | 13.2 |                                                                                   |      |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |      |
| Capacity (veh/h)         | 1158                                                                              | -                                                                                 | -                                                                                 | -    | 506                                                                               |      |
| HCM Lane V/C Ratio       | -                                                                                 | -                                                                                 | -                                                                                 | -    | 0.133                                                                             |      |
| HCM Control Delay (s)    | 0                                                                                 | -                                                                                 | -                                                                                 | -    | 13.2                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -    | B                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | -                                                                                 | -    | 0.5                                                                               |      |

HCM 6th TWSC  
10: ARROYO VISTA & INSPIRATION WEST

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections

| Intersection             |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.5                                                                               |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |        |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 490                                                                               | 803                                                                               | 65     | 37                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 490                                                                               | 803                                                                               | 65     | 37                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None   | -                                                                                 | None |
| Storage Length           | 150                                                                               | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -      | 2                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -    |
| Peak Hour Factor         | 85                                                                                | 85                                                                                | 85                                                                                | 85     | 85                                                                                | 85   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 576                                                                               | 945                                                                               | 76     | 44                                                                                | 0    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 1021                                                                              | 0                                                                                 | -                                                                                 | 0      | 1271                                                                              | 511  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 983                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 288                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -      | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -      | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 675                                                                               | -                                                                                 | -                                                                                 | -      | 160                                                                               | 508  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 323                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 735                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 675                                                                               | -                                                                                 | -                                                                                 | -      | 160                                                                               | 508  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 297                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 323                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 735                                                                               | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0                                                                                 | 0                                                                                 |                                                                                   | 19.2   |                                                                                   |      |
| HCM LOS                  | C                                                                                 |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 675                                                                               | -                                                                                 | -                                                                                 | -      | 297                                                                               |      |
| HCM Lane V/C Ratio       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 0.147                                                                             |      |
| HCM Control Delay (s)    | 0                                                                                 | -                                                                                 | -                                                                                 | -      | 19.2                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -      | C                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | -                                                                                 | -      | 0.5                                                                               |      |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 11.2   |                                                                                   |                                                                                   |        |                                                                                   |       |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR   |
| Lane Configurations      |        |  |  |        |  |       |
| Traffic Vol, veh/h       | 0      | 781                                                                               | 337                                                                               | 47     | 134                                                                               | 0     |
| Future Vol, veh/h        | 0      | 781                                                                               | 337                                                                               | 47     | 134                                                                               | 0     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0     |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop  |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None   | -                                                                                 | None  |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Peak Hour Factor         | 85     | 85                                                                                | 85                                                                                | 85     | 85                                                                                | 85    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2     |
| Mvmt Flow                | 0      | 919                                                                               | 396                                                                               | 55     | 158                                                                               | 0     |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |       |
| Conflicting Flow All     | 451    | 0                                                                                 | -                                                                                 | 0      | 1343                                                                              | 424   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 424                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 919                                                                               | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -      | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -      | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | 1109   | -                                                                                 | -                                                                                 | -      | 168                                                                               | 630   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 660                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 389                                                                               | -     |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |       |
| Mov Cap-1 Maneuver       | 1109   | -                                                                                 | -                                                                                 | -      | 168                                                                               | 630   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 168                                                                               | -     |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 660                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 389                                                                               | -     |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |       |
| HCM Control Delay, s     | 0      | 0                                                                                 |                                                                                   | 108.7  |                                                                                   |       |
| HCM LOS                  |        |                                                                                   |                                                                                   | F      |                                                                                   |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |       |
| Capacity (veh/h)         | 1109   | -                                                                                 | -                                                                                 | -      | 168                                                                               |       |
| HCM Lane V/C Ratio       | -      | -                                                                                 | -                                                                                 | -      | 0.938                                                                             |       |
| HCM Control Delay (s)    | 0      | -                                                                                 | -                                                                                 | -      | 108.7                                                                             |       |
| HCM Lane LOS             | A      | -                                                                                 | -                                                                                 | -      | F                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 7.1                                                                               |       |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections

| Intersection                                                                                                         |        |                                                                                   |                                                                                   |           |                                                                                   |       |
|----------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh                                                                                                     | 126.4  |                                                                                   |                                                                                   |           |                                                                                   |       |
| Movement                                                                                                             | EBL    | EBT                                                                               | WBT                                                                               | WBR       | SBL                                                                               | SBR   |
| Lane Configurations                                                                                                  |        |  |  |           |  |       |
| Traffic Vol, veh/h                                                                                                   | 0      | 527                                                                               | 868                                                                               | 153       | 85                                                                                | 0     |
| Future Vol, veh/h                                                                                                    | 0      | 527                                                                               | 868                                                                               | 153       | 85                                                                                | 0     |
| Conflicting Peds, #/hr                                                                                               | 0      | 0                                                                                 | 0                                                                                 | 0         | 0                                                                                 | 0     |
| Sign Control                                                                                                         | Free   | Free                                                                              | Free                                                                              | Free      | Stop                                                                              | Stop  |
| RT Channelized                                                                                                       | -      | None                                                                              | -                                                                                 | None      | -                                                                                 | None  |
| Storage Length                                                                                                       | -      | -                                                                                 | -                                                                                 | -         | 0                                                                                 | -     |
| Veh in Median Storage, #                                                                                             | -      | 0                                                                                 | 0                                                                                 | -         | 0                                                                                 | -     |
| Grade, %                                                                                                             | -      | 0                                                                                 | 0                                                                                 | -         | 0                                                                                 | -     |
| Peak Hour Factor                                                                                                     | 25     | 25                                                                                | 85                                                                                | 85        | 85                                                                                | 85    |
| Heavy Vehicles, %                                                                                                    | 2      | 2                                                                                 | 2                                                                                 | 2         | 2                                                                                 | 2     |
| Mvmt Flow                                                                                                            | 0      | 2108                                                                              | 1021                                                                              | 180       | 100                                                                               | 0     |
| Major/Minor                                                                                                          | Major1 | Major2                                                                            |                                                                                   | Minor2    |                                                                                   |       |
| Conflicting Flow All                                                                                                 | 1201   | 0                                                                                 | -                                                                                 | 0         | 3219                                                                              | 1111  |
| Stage 1                                                                                                              | -      | -                                                                                 | -                                                                                 | -         | 1111                                                                              | -     |
| Stage 2                                                                                                              | -      | -                                                                                 | -                                                                                 | -         | 2108                                                                              | -     |
| Critical Hdwy                                                                                                        | 4.12   | -                                                                                 | -                                                                                 | -         | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1                                                                                                  | -      | -                                                                                 | -                                                                                 | -         | 5.42                                                                              | -     |
| Critical Hdwy Stg 2                                                                                                  | -      | -                                                                                 | -                                                                                 | -         | 5.42                                                                              | -     |
| Follow-up Hdwy                                                                                                       | 2.218  | -                                                                                 | -                                                                                 | -         | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver                                                                                                   | 581    | -                                                                                 | -                                                                                 | -         | ~ 11                                                                              | 254   |
| Stage 1                                                                                                              | -      | -                                                                                 | -                                                                                 | -         | 315                                                                               | -     |
| Stage 2                                                                                                              | -      | -                                                                                 | -                                                                                 | -         | 101                                                                               | -     |
| Platoon blocked, %                                                                                                   |        | -                                                                                 | -                                                                                 | -         |                                                                                   |       |
| Mov Cap-1 Maneuver                                                                                                   | 581    | -                                                                                 | -                                                                                 | -         | ~ 11                                                                              | 254   |
| Mov Cap-2 Maneuver                                                                                                   | -      | -                                                                                 | -                                                                                 | -         | ~ 11                                                                              | -     |
| Stage 1                                                                                                              | -      | -                                                                                 | -                                                                                 | -         | 315                                                                               | -     |
| Stage 2                                                                                                              | -      | -                                                                                 | -                                                                                 | -         | 101                                                                               | -     |
| Approach                                                                                                             | EB     | WB                                                                                |                                                                                   | SB        |                                                                                   |       |
| HCM Control Delay, s                                                                                                 | 0      | 0                                                                                 |                                                                                   | \$ 4309.8 |                                                                                   |       |
| HCM LOS                                                                                                              |        |                                                                                   |                                                                                   | F         |                                                                                   |       |
| Minor Lane/Major Mvmt                                                                                                | EBL    | EBT                                                                               | WBT                                                                               | WBR       | SBLn1                                                                             |       |
| Capacity (veh/h)                                                                                                     | 581    | -                                                                                 | -                                                                                 | -         | 11                                                                                |       |
| HCM Lane V/C Ratio                                                                                                   | -      | -                                                                                 | -                                                                                 | -         | 9.091                                                                             |       |
| HCM Control Delay (s)                                                                                                | 0      | -                                                                                 | -                                                                                 | -         | \$ 4309.8                                                                         |       |
| HCM Lane LOS                                                                                                         | A      | -                                                                                 | -                                                                                 | -         | F                                                                                 |       |
| HCM 95th %tile Q(veh)                                                                                                | 0      | -                                                                                 | -                                                                                 | -         | 13.8                                                                              |       |
| Notes                                                                                                                |        |                                                                                   |                                                                                   |           |                                                                                   |       |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |        |                                                                                   |                                                                                   |           |                                                                                   |       |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections (Two Stage)

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 3.2    |                                                                                   |                                                                                   |        |                                                                                   |       |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR   |
| Lane Configurations      |        |  |  |        |  |       |
| Traffic Vol, veh/h       | 0      | 781                                                                               | 337                                                                               | 47     | 134                                                                               | 0     |
| Future Vol, veh/h        | 0      | 781                                                                               | 337                                                                               | 47     | 134                                                                               | 0     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0     |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop  |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None   | -                                                                                 | None  |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -      | 1                                                                                 | -     |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Peak Hour Factor         | 85     | 85                                                                                | 85                                                                                | 85     | 85                                                                                | 85    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2     |
| Mvmt Flow                | 0      | 919                                                                               | 396                                                                               | 55     | 158                                                                               | 0     |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |       |
| Conflicting Flow All     | 451    | 0                                                                                 | -                                                                                 | 0      | 1343                                                                              | 424   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 424                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 919                                                                               | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -      | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -      | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | 1109   | -                                                                                 | -                                                                                 | -      | 168                                                                               | 630   |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 660                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 389                                                                               | -     |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |       |
| Mov Cap-1 Maneuver       | 1109   | -                                                                                 | -                                                                                 | -      | 168                                                                               | 630   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 293                                                                               | -     |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 660                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 389                                                                               | -     |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |       |
| HCM Control Delay, s     | 0      | 0                                                                                 |                                                                                   | 30.7   |                                                                                   |       |
| HCM LOS                  |        |                                                                                   |                                                                                   | D      |                                                                                   |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |       |
| Capacity (veh/h)         | 1109   | -                                                                                 | -                                                                                 | -      | 293                                                                               |       |
| HCM Lane V/C Ratio       | -      | -                                                                                 | -                                                                                 | -      | 0.538                                                                             |       |
| HCM Control Delay (s)    | 0      | -                                                                                 | -                                                                                 | -      | 30.7                                                                              |       |
| HCM Lane LOS             | A      | -                                                                                 | -                                                                                 | -      | D                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 3                                                                                 |       |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections (Two Stage)

| Intersection                                                                                                         |        |                                                                                   |                                                                                   |        |                                                                                   |       |
|----------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh                                                                                                     | 6.3    |                                                                                   |                                                                                   |        |                                                                                   |       |
| Movement                                                                                                             | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR   |
| Lane Configurations                                                                                                  |        |  |  |        |  |       |
| Traffic Vol, veh/h                                                                                                   | 0      | 527                                                                               | 868                                                                               | 153    | 85                                                                                | 0     |
| Future Vol, veh/h                                                                                                    | 0      | 527                                                                               | 868                                                                               | 153    | 85                                                                                | 0     |
| Conflicting Peds, #/hr                                                                                               | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0     |
| Sign Control                                                                                                         | Free   | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop  |
| RT Channelized                                                                                                       | -      | None                                                                              | -                                                                                 | None   | -                                                                                 | None  |
| Storage Length                                                                                                       | -      | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -     |
| Veh in Median Storage, #                                                                                             | -      | 0                                                                                 | 0                                                                                 | -      | 2                                                                                 | -     |
| Grade, %                                                                                                             | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Peak Hour Factor                                                                                                     | 25     | 25                                                                                | 85                                                                                | 85     | 85                                                                                | 85    |
| Heavy Vehicles, %                                                                                                    | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2     |
| Mvmt Flow                                                                                                            | 0      | 2108                                                                              | 1021                                                                              | 180    | 100                                                                               | 0     |
| Major/Minor                                                                                                          | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |       |
| Conflicting Flow All                                                                                                 | 1201   | 0                                                                                 | -                                                                                 | 0      | 3219                                                                              | 1111  |
| Stage 1                                                                                                              | -      | -                                                                                 | -                                                                                 | -      | 1111                                                                              | -     |
| Stage 2                                                                                                              | -      | -                                                                                 | -                                                                                 | -      | 2108                                                                              | -     |
| Critical Hdwy                                                                                                        | 4.12   | -                                                                                 | -                                                                                 | -      | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1                                                                                                  | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Critical Hdwy Stg 2                                                                                                  | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Follow-up Hdwy                                                                                                       | 2.218  | -                                                                                 | -                                                                                 | -      | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver                                                                                                   | 581    | -                                                                                 | -                                                                                 | -      | ~ 11                                                                              | 254   |
| Stage 1                                                                                                              | -      | -                                                                                 | -                                                                                 | -      | 315                                                                               | -     |
| Stage 2                                                                                                              | -      | -                                                                                 | -                                                                                 | -      | 101                                                                               | -     |
| Platoon blocked, %                                                                                                   |        | -                                                                                 | -                                                                                 | -      |                                                                                   |       |
| Mov Cap-1 Maneuver                                                                                                   | 581    | -                                                                                 | -                                                                                 | -      | ~ 11                                                                              | 254   |
| Mov Cap-2 Maneuver                                                                                                   | -      | -                                                                                 | -                                                                                 | -      | ~ 90                                                                              | -     |
| Stage 1                                                                                                              | -      | -                                                                                 | -                                                                                 | -      | 315                                                                               | -     |
| Stage 2                                                                                                              | -      | -                                                                                 | -                                                                                 | -      | 101                                                                               | -     |
| Approach                                                                                                             | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |       |
| HCM Control Delay, s                                                                                                 | 0      | 0                                                                                 |                                                                                   | 213.6  |                                                                                   |       |
| HCM LOS                                                                                                              |        |                                                                                   |                                                                                   | F      |                                                                                   |       |
| Minor Lane/Major Mvmt                                                                                                | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |       |
| Capacity (veh/h)                                                                                                     | 581    | -                                                                                 | -                                                                                 | -      | 90                                                                                |       |
| HCM Lane V/C Ratio                                                                                                   | -      | -                                                                                 | -                                                                                 | -      | 1.111                                                                             |       |
| HCM Control Delay (s)                                                                                                | 0      | -                                                                                 | -                                                                                 | -      | 213.6                                                                             |       |
| HCM Lane LOS                                                                                                         | A      | -                                                                                 | -                                                                                 | -      | F                                                                                 |       |
| HCM 95th %tile Q(veh)                                                                                                | 0      | -                                                                                 | -                                                                                 | -      | 6.8                                                                               |       |
| Notes                                                                                                                |        |                                                                                   |                                                                                   |        |                                                                                   |       |
| ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon |        |                                                                                   |                                                                                   |        |                                                                                   |       |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing AM Intersections

| Intersection             |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.3                                                                               |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |        |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 781                                                                               | 337                                                                               | 47     | 134                                                                               | 0    |
| Future Vol, veh/h        | 0                                                                                 | 781                                                                               | 337                                                                               | 47     | 134                                                                               | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None   | -                                                                                 | None |
| Storage Length           | 150                                                                               | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -    |
| Peak Hour Factor         | 85                                                                                | 85                                                                                | 85                                                                                | 85     | 85                                                                                | 85   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 919                                                                               | 396                                                                               | 55     | 158                                                                               | 0    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 451                                                                               | 0                                                                                 | -                                                                                 | 0      | 884                                                                               | 226  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 424                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 460                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -      | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -      | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 1106                                                                              | -                                                                                 | -                                                                                 | -      | 285                                                                               | 777  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 628                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 602                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 1106                                                                              | -                                                                                 | -                                                                                 | -      | 285                                                                               | 777  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 285                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 628                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 602                                                                               | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0                                                                                 | 0                                                                                 |                                                                                   | 32.2   |                                                                                   |      |
| HCM LOS                  | D                                                                                 |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 1106                                                                              | -                                                                                 | -                                                                                 | -      | 285                                                                               |      |
| HCM Lane V/C Ratio       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 0.553                                                                             |      |
| HCM Control Delay (s)    | 0                                                                                 | -                                                                                 | -                                                                                 | -      | 32.2                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -      | D                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | -                                                                                 | -      | 3.1                                                                               |      |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections

| Intersection             |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 5                                                                                 |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 527                                                                               | 868                                                                               | 153  | 85                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 527                                                                               | 868                                                                               | 153  | 85                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 150                                                                               | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 85                                                                                | 85                                                                                | 85                                                                                | 85   | 85                                                                                | 85   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 620                                                                               | 1021                                                                              | 180  | 100                                                                               | 0    |
| Major/Minor              | Major1                                                                            | Major2                                                                            | Minor2                                                                            |      |                                                                                   |      |
| Conflicting Flow All     | 1201                                                                              | 0                                                                                 | -                                                                                 | 0    | 1421                                                                              | 601  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1111                                                                              | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 310                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -    | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -    | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -    | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -    | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 577                                                                               | -                                                                                 | -                                                                                 | -    | 127                                                                               | 443  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 277                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 717                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -    |                                                                                   |      |
| Mov Cap-1 Maneuver       | 577                                                                               | -                                                                                 | -                                                                                 | -    | 127                                                                               | 443  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -    | 127                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 277                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 717                                                                               | -    |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB   |                                                                                   |      |
| HCM Control Delay, s     | 0                                                                                 | 0                                                                                 |                                                                                   | 96.6 |                                                                                   |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   | F    |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |      |
| Capacity (veh/h)         | 577                                                                               | -                                                                                 | -                                                                                 | -    | 127                                                                               |      |
| HCM Lane V/C Ratio       | -                                                                                 | -                                                                                 | -                                                                                 | -    | 0.787                                                                             |      |
| HCM Control Delay (s)    | 0                                                                                 | -                                                                                 | -                                                                                 | -    | 96.6                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -    | F                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | -                                                                                 | -    | 4.7                                                                               |      |

HCM 6th TWSC  
11: ARROYO VISTA & INSPIRATION EAST

Upper Petroglyphs TIA  
2030 Build Existing PM Intersections (Two Stage)

| Intersection             |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.7                                                                               |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 527                                                                               | 868                                                                               | 153  | 85                                                                                | 0    |
| Future Vol, veh/h        | 0                                                                                 | 527                                                                               | 868                                                                               | 153  | 85                                                                                | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 150                                                                               | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 1                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 85                                                                                | 85                                                                                | 85                                                                                | 85   | 85                                                                                | 85   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 0                                                                                 | 620                                                                               | 1021                                                                              | 180  | 100                                                                               | 0    |
| Major/Minor              | Major1                                                                            | Major2                                                                            | Minor2                                                                            |      |                                                                                   |      |
| Conflicting Flow All     | 1201                                                                              | 0                                                                                 | -                                                                                 | 0    | 1421                                                                              | 601  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 1111                                                                              | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 310                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -    | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -    | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -    | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -    | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 577                                                                               | -                                                                                 | -                                                                                 | -    | 127                                                                               | 443  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 277                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 717                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -    |                                                                                   |      |
| Mov Cap-1 Maneuver       | 577                                                                               | -                                                                                 | -                                                                                 | -    | 127                                                                               | 443  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -    | 225                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 277                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -    | 717                                                                               | -    |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB   |                                                                                   |      |
| HCM Control Delay, s     | 0                                                                                 | 0                                                                                 |                                                                                   | 33.2 |                                                                                   |      |
| HCM LOS                  |                                                                                   |                                                                                   |                                                                                   | D    |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |      |
| Capacity (veh/h)         | 577                                                                               | -                                                                                 | -                                                                                 | -    | 225                                                                               |      |
| HCM Lane V/C Ratio       | -                                                                                 | -                                                                                 | -                                                                                 | -    | 0.444                                                                             |      |
| HCM Control Delay (s)    | 0                                                                                 | -                                                                                 | -                                                                                 | -    | 33.2                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -    | D                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | -                                                                                 | -    | 2.1                                                                               |      |

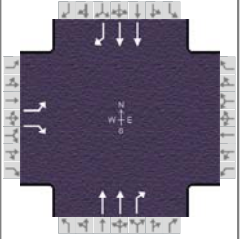
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | Unser @ EB I-40 |
| Project Description | AM 2030 Build   |

## Intersection Information

|                 |                           |
|-----------------|---------------------------|
| Duration, h     | 0.250                     |
| Area Type       | Other                     |
| PHF             | 0.92                      |
| Analysis Period | 1> 7:00                   |
| File Name       | Unser_EB I40_2030B_AM.xus |



## Demand Information

|                     | EB  |   |     | WB |   |   | NB |     |      | SB |      |      |
|---------------------|-----|---|-----|----|---|---|----|-----|------|----|------|------|
| Approach Movement   | L   | T | R   | L  | T | R | L  | T   | R    | L  | T    | R    |
| Demand ( v ), veh/h | 141 |   | 102 |    |   |   |    | 954 | 1007 |    | 1457 | 1117 |

## Signal Information

|               |       |                 |     |        |      |      |     |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|------|------|-----|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |      |      |     |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |      |     |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 69.0 | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.5  | 4.5  | 0.0 | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 1.0  | 1.0  | 0.0 | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT | NBL | NBT  | SBL | SBT  |
|--------------------------------------------|-----|------|-----|-----|-----|------|-----|------|
| Assigned Phase                             |     | 8    |     |     |     | 6    |     | 2    |
| Case Number                                |     | 9.0  |     |     |     | 7.0  |     | 7.0  |
| Phase Duration, s                          |     | 35.5 |     |     |     | 74.5 |     | 74.5 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     |     |     | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.1  |     |     |     | 0.0  |     | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 9.9  |     |     |     |      |     |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.5  |     |     |     | 0.0  |     | 0.0  |
| Phase Call Probability                     |     | 1.00 |     |     |     |      |     |      |
| Max Out Probability                        |     | 0.00 |     |     |     |      |     |      |

## Movement Group Results

|                                                  | EB    |   |     | WB |     |   | NB    |      |   | SB    |      |   |
|--------------------------------------------------|-------|---|-----|----|-----|---|-------|------|---|-------|------|---|
| Approach Movement                                | L     | T | R   | L  | T   | R | L     | T    | R | L     | T    | R |
| Assigned Movement                                | 3     |   | 18  |    |     |   | 6     | 16   |   | 2     | 12   |   |
| Adjusted Flow Rate ( v ), veh/h                  | 153   |   | 111 |    |     |   | 1037  | 1095 |   | 1584  | 1214 |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1711  |   |     |    |     |   | 1766  |      |   | 1781  |      |   |
| Queue Service Time ( g <sub>s</sub> ), s         | 7.9   |   |     |    |     |   | 17.0  |      |   | 32.8  |      |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 7.9   |   |     |    |     |   | 17.0  |      |   | 32.8  |      |   |
| Green Ratio ( g/C )                              | 0.27  |   |     |    |     |   | 0.63  |      |   | 0.63  |      |   |
| Capacity ( c ), veh/h                            | 466   |   |     |    |     |   | 2216  |      |   | 2234  |      |   |
| Volume-to-Capacity Ratio ( X )                   | 0.329 |   |     |    |     |   | 0.468 |      |   | 0.709 |      |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 150.4 |   |     |    |     |   | 254.8 |      |   | 440.6 |      |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 5.7   |   |     |    |     |   | 10.0  |      |   | 17.3  |      |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 1.34  |   |     |    |     |   | 0.13  |      |   | 0.28  |      |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 32.0  |   |     |    |     |   | 10.8  |      |   | 13.8  |      |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 0.2   |   |     |    |     |   | 0.7   |      |   | 1.9   |      |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   |   |     |    |     |   | 0.0   |      |   | 0.0   |      |   |
| Control Delay ( d ), s/veh                       | 32.1  |   | 0.0 |    |     |   | 11.5  | 0.0  |   | 15.7  | 0.0  |   |
| Level of Service ( LOS )                         | C     |   | A   |    |     |   | B     | A    |   | B     | A    |   |
| Approach Delay, s/veh / LOS                      | 18.6  |   | B   |    | 0.0 |   | 5.6   | A    |   | 8.9   | A    |   |
| Intersection Delay, s/veh / LOS                  |       |   | 8.0 |    |     |   |       | A    |   |       |      |   |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 1.36 |  | A | 1.88 |  | B |
| Bicycle LOS Score / LOS    |      |  | F |      |  |   | 2.25 |  | B | 2.80 |  | C |

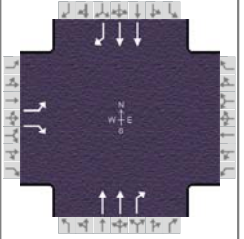
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | Unser @ EB I-40 |
| Project Description | PM 2030 Build   |

## Intersection Information

|                 |                           |
|-----------------|---------------------------|
| Duration, h     | 0.250                     |
| Area Type       | Other                     |
| PHF             | 1.00                      |
| Analysis Period | 1> 16:00                  |
| File Name       | Unser_EB I40_2030B_PM.xus |



## Demand Information

|                     | EB  |   |    | WB |   |   | NB |      |     | SB |      |     |
|---------------------|-----|---|----|----|---|---|----|------|-----|----|------|-----|
| Approach Movement   | L   | T | R  | L  | T | R | L  | T    | R   | L  | T    | R   |
| Demand ( v ), veh/h | 112 |   | 56 |    |   |   |    | 1141 | 732 |    | 1566 | 464 |

## Signal Information

|               |       |                 |     |        |      |      |     |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|------|------|-----|-----|-----|-----|--|--|
| Cycle, s      | 110.0 | Reference Phase | 2   |        |      |      |     |     |     |     |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |      |     |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 69.2 | 29.8 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 4.5  | 4.5  | 0.0 | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 1.0  | 1.0  | 0.0 | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                            | EBL | EBT  | WBL | WBT | NBL | NBT  | SBL | SBT  |
|--------------------------------------------|-----|------|-----|-----|-----|------|-----|------|
| Assigned Phase                             |     | 8    |     |     |     | 6    |     | 2    |
| Case Number                                |     | 9.0  |     |     |     | 7.0  |     | 7.0  |
| Phase Duration, s                          |     | 35.3 |     |     |     | 74.7 |     | 74.7 |
| Change Period, ( Y+R <sub>c</sub> ), s     |     | 5.5  |     |     |     | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s               |     | 3.1  |     |     |     | 0.0  |     | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s |     | 7.5  |     |     |     |      |     |      |
| Green Extension Time ( g <sub>e</sub> ), s |     | 0.3  |     |     |     | 0.0  |     | 0.0  |
| Phase Call Probability                     |     | 0.99 |     |     |     |      |     |      |
| Max Out Probability                        |     | 0.00 |     |     |     |      |     |      |

## Movement Group Results

|                                                  | EB    |   |     | WB  |   |   | NB    |     |   | SB    |     |   |
|--------------------------------------------------|-------|---|-----|-----|---|---|-------|-----|---|-------|-----|---|
| Approach Movement                                | L     | T | R   | L   | T | R | L     | T   | R | L     | T   | R |
| Assigned Movement                                | 3     |   | 18  |     |   |   | 6     | 16  |   | 2     | 12  |   |
| Adjusted Flow Rate ( v ), veh/h                  | 112   |   | 56  |     |   |   | 1141  | 732 |   | 1566  | 464 |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1753  |   |     |     |   |   | 1781  |     |   | 1766  |     |   |
| Queue Service Time ( g <sub>s</sub> ), s         | 5.5   |   |     |     |   |   | 19.2  |     |   | 32.5  |     |   |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 5.5   |   |     |     |   |   | 19.2  |     |   | 32.5  |     |   |
| Green Ratio ( g/C )                              | 0.27  |   |     |     |   |   | 0.63  |     |   | 0.63  |     |   |
| Capacity ( c ), veh/h                            | 475   |   |     |     |   |   | 2240  |     |   | 2222  |     |   |
| Volume-to-Capacity Ratio ( X )                   | 0.236 |   |     |     |   |   | 0.509 |     |   | 0.705 |     |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 104.5 |   |     |     |   |   | 280.9 |     |   | 438.4 |     |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 4.0   |   |     |     |   |   | 11.1  |     |   | 17.1  |     |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.93  |   |     |     |   |   | 0.14  |     |   | 0.28  |     |   |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 31.2  |   |     |     |   |   | 11.1  |     |   | 13.6  |     |   |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 0.1   |   |     |     |   |   | 0.8   |     |   | 1.9   |     |   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   |   |     |     |   |   | 0.0   |     |   | 0.0   |     |   |
| Control Delay ( d ), s/veh                       | 31.3  |   | 0.0 |     |   |   | 12.0  | 0.0 |   | 15.5  | 0.0 |   |
| Level of Service ( LOS )                         | C     |   | A   |     |   |   | B     | A   |   | B     | A   |   |
| Approach Delay, s/veh / LOS                      | 20.9  |   | C   | 0.0 |   |   | 7.3   | A   |   | 12.0  |     | B |
| Intersection Delay, s/veh / LOS                  | 10.2  |   |     |     |   |   | B     |     |   |       |     |   |

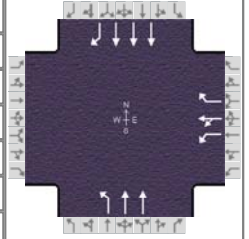
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.32 |  | B | 2.32 |  | B | 1.36 |  | A | 1.88 |  | B |
| Bicycle LOS Score / LOS    |      |  | F |      |  |   | 2.03 |  | B | 2.16 |  | B |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                        |               |                    |
|---------------------|----------------------------------------|---------------|--------------------|
| Agency              | Bohannon Huston                        |               |                    |
| Analyst             | CDV                                    | Analysis Date | 11/21/2019         |
| Jurisdiction        |                                        | Time Period   | AM Peak            |
| Urban Street        |                                        | Analysis Year | 2030               |
| Intersection        | UNSER @ WB I-40                        | File Name     | Unser Intersection |
| Project Description | AM 2030 Build (Existing Signal Timing) |               |                    |



## Demand Information

|                     | EB |   |   | WB  |   |     | NB |      |   | SB |      |     |
|---------------------|----|---|---|-----|---|-----|----|------|---|----|------|-----|
| Approach Movement   | L  | T | R | L   | T | R   | L  | T    | R | L  | T    | R   |
| Demand ( v ), veh/h |    |   |   | 399 | 1 | 274 | 31 | 1024 |   |    | 2654 | 207 |

## Signal Information

|               |       |                 |     |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |     |     |     |  |  |
| Offset, s     | 13    | Reference Point | End |        |     |      |      |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 2.0 | 88.4 | 24.6 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.0 | 4.5  | 4.5  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 0.5 | 1.0  | 1.5  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|---------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                  |     |     |     | 8    | 5    | 2    |     | 6    |
| Case Number                     |     |     |     | 9.0  | 1.0  | 4.0  |     | 7.3  |
| Phase Duration, s               |     |     |     | 30.6 | 5.5  | 99.4 |     | 93.9 |
| Change Period, ( Y+R c ), s     |     |     |     | 6.0  | 3.5  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 3.1  | 4.0  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 23.6 | 2.7  |      |     |      |
| Green Extension Time ( g e ), s |     |     |     | 1.0  | 0.0  | 0.0  |     | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 | 0.67 |      |     |      |
| Max Out Probability             |     |     |     | 0.08 | 0.00 |      |     |      |

## Movement Group Results

|                                                 | EB  |   |   | WB    |       |     | NB    |       |   | SB    |     |     |
|-------------------------------------------------|-----|---|---|-------|-------|-----|-------|-------|---|-------|-----|-----|
| Approach Movement                               | L   | T | R | L     | T     | R   | L     | T     | R | L     | T   | R   |
| Assigned Movement                               |     |   |   | 3     | 8     | 18  | 5     | 2     |   | 6     |     | 16  |
| Adjusted Flow Rate ( v ), veh/h                 |     |   |   | 200   | 201   | 274 | 31    | 1024  |   | 2472  |     | 193 |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |     |   |   | 1810  | 1810  |     | 1810  | 1809  |   | 1725  |     |     |
| Queue Service Time ( g s ), s                   |     |   |   | 13.1  | 13.1  |     | 0.7   | 14.2  |   | 35.3  |     |     |
| Cycle Queue Clearance Time ( g c ), s           |     |   |   | 13.1  | 13.1  |     | 0.7   | 14.2  |   | 35.3  |     |     |
| Green Ratio ( g/C )                             |     |   |   | 0.19  | 0.19  |     | 0.71  | 0.72  |   | 0.68  |     |     |
| Capacity ( c ), veh/h                           |     |   |   | 342   | 342   |     | 139   | 2614  |   | 3519  |     |     |
| Volume-to-Capacity Ratio ( X )                  |     |   |   | 0.583 | 0.586 |     | 0.222 | 0.392 |   | 0.702 |     |     |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |     |   |   | 244.6 | 245.6 |     | 13.6  | 208.8 |   | 345.1 |     |     |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |     |   |   | 9.8   | 9.8   |     | 0.5   | 8.4   |   | 13.8  |     |     |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |     |   |   | 0.00  | 0.00  |     | 0.04  | 0.00  |   | 0.00  |     |     |
| Uniform Delay ( d 1 ), s/veh                    |     |   |   | 48.0  | 48.1  |     | 12.5  | 7.0   |   | 10.9  |     |     |
| Incremental Delay ( d 2 ), s/veh                |     |   |   | 0.6   | 0.6   |     | 0.8   | 0.4   |   | 0.4   |     |     |
| Initial Queue Delay ( d 3 ), s/veh              |     |   |   | 0.0   | 0.0   |     | 0.0   | 0.0   |   | 0.0   |     |     |
| Control Delay ( d ), s/veh                      |     |   |   | 48.6  | 48.7  | 0.0 | 13.3  | 7.4   |   | 11.2  | 0.0 |     |
| Level of Service ( LOS )                        |     |   |   | D     | D     | A   | B     | A     |   | B     | A   |     |
| Approach Delay, s/veh / LOS                     | 0.0 |   |   | 28.9  |       | C   | 7.6   |       | A | 10.4  |     | B   |
| Intersection Delay, s/veh / LOS                 |     |   |   | 12.6  |       |     |       |       | B |       |     |     |

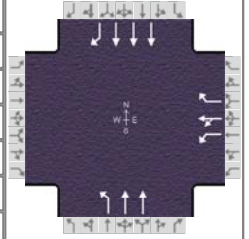
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.48 |  | B | 2.48 |  | B | 1.86 |  | B | 1.36 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 1.60 |  | B | 1.36 |  | A | 2.06 |  | B |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                        |               |                    |
|---------------------|----------------------------------------|---------------|--------------------|
| Agency              | Bohannon Huston                        |               |                    |
| Analyst             | CDV                                    | Analysis Date | 11/21/2019         |
| Jurisdiction        |                                        | Time Period   | PM Peak            |
| Urban Street        |                                        | Analysis Year | 2030               |
| Intersection        | UNSER @ WB I-40                        | File Name     | Unser Intersection |
| Project Description | PM 2030 Build (Existing Signal Timing) |               |                    |



## Demand Information

|                     | EB |   |   | WB  |   |      | NB |      |   | SB |      |     |
|---------------------|----|---|---|-----|---|------|----|------|---|----|------|-----|
| Approach Movement   | L  | T | R | L   | T | R    | L  | T    | R | L  | T    | R   |
| Demand ( v ), veh/h |    |   |   | 851 | 6 | 1726 | 57 | 1166 |   |    | 1313 | 249 |

## Signal Information

|               |       |                 |     |        |     |      |      |     |     |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|-----|-----|-----|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |     |     |     |  |  |
| Offset, s     | 3     | Reference Point | End |        |     |      |      |     |     |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 4.0 | 46.8 | 64.2 | 0.0 | 0.0 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.0 | 4.5  | 4.5  | 0.0 | 0.0 | 0.0 |  |  |
|               |       |                 |     | Red    | 0.5 | 1.0  | 1.5  | 0.0 | 0.0 | 0.0 |  |  |

## Timer Results

|                                 | EBL | EBT | WBL | WBT  | NBL  | NBT  | SBL | SBT  |
|---------------------------------|-----|-----|-----|------|------|------|-----|------|
| Assigned Phase                  |     |     |     | 8    | 5    | 2    |     | 6    |
| Case Number                     |     |     |     | 9.0  | 1.0  | 4.0  |     | 7.3  |
| Phase Duration, s               |     |     |     | 70.2 | 7.5  | 59.8 |     | 52.3 |
| Change Period, ( Y+R c ), s     |     |     |     | 6.0  | 3.5  | 5.5  |     | 5.5  |
| Max Allow Headway ( MAH ), s    |     |     |     | 3.2  | 4.0  | 0.0  |     | 0.0  |
| Queue Clearance Time ( g s ), s |     |     |     | 66.2 | 4.5  |      |     |      |
| Green Extension Time ( g e ), s |     |     |     | 0.0  | 0.0  | 0.0  |     | 0.0  |
| Phase Call Probability          |     |     |     | 1.00 | 0.87 |      |     |      |
| Max Out Probability             |     |     |     | 1.00 | 0.06 |      |     |      |

## Movement Group Results

|                                                 | EB   |   |   | WB    |       |      | NB    |       |   | SB    |     |   |
|-------------------------------------------------|------|---|---|-------|-------|------|-------|-------|---|-------|-----|---|
| Approach Movement                               | L    | T | R | L     | T     | R    | L     | T     | R | L     | T   | R |
| Assigned Movement                               |      |   |   | 3     | 8     | 18   | 5     | 2     |   | 6     | 16  |   |
| Adjusted Flow Rate ( v ), veh/h                 |      |   |   | 426   | 432   | 1726 | 57    | 1166  |   | 1172  | 222 |   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln   |      |   |   | 1810  | 1811  |      | 1810  | 1809  |   | 1725  |     |   |
| Queue Service Time ( g s ), s                   |      |   |   | 20.2  | 20.6  |      | 2.5   | 36.0  |   | 24.8  |     |   |
| Cycle Queue Clearance Time ( g c ), s           |      |   |   | 20.2  | 20.6  |      | 2.5   | 36.0  |   | 24.8  |     |   |
| Green Ratio ( g/C )                             |      |   |   | 0.49  | 0.49  |      | 0.41  | 0.42  |   | 0.36  |     |   |
| Capacity ( c ), veh/h                           |      |   |   | 894   | 894   |      | 193   | 1511  |   | 1864  |     |   |
| Volume-to-Capacity Ratio ( X )                  |      |   |   | 0.476 | 0.483 |      | 0.295 | 0.772 |   | 0.628 |     |   |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)  |      |   |   | 322.9 | 327.8 |      | 49.3  | 559.9 |   | 351.3 |     |   |
| Back of Queue ( Q ), veh/ln ( 95 th percentile) |      |   |   | 12.9  | 13.1  |      | 2.0   | 22.4  |   | 14.1  |     |   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)  |      |   |   | 0.00  | 0.00  |      | 0.14  | 0.00  |   | 0.00  |     |   |
| Uniform Delay ( d 1 ), s/veh                    |      |   |   | 21.8  | 21.9  |      | 26.8  | 32.5  |   | 36.1  |     |   |
| Incremental Delay ( d 2 ), s/veh                |      |   |   | 0.1   | 0.2   |      | 0.8   | 4.0   |   | 0.8   |     |   |
| Initial Queue Delay ( d 3 ), s/veh              |      |   |   | 0.0   | 0.0   |      | 0.0   | 0.0   |   | 0.0   |     |   |
| Control Delay ( d ), s/veh                      |      |   |   | 21.9  | 22.0  | 0.0  | 27.6  | 36.5  |   | 36.9  | 0.0 |   |
| Level of Service ( LOS )                        |      |   |   | C     | C     | A    | C     | D     |   | D     | A   |   |
| Approach Delay, s/veh / LOS                     | 0.0  |   |   | 7.3   |       | A    | 36.1  |       | D | 31.0  |     | C |
| Intersection Delay, s/veh / LOS                 | 20.4 |   |   |       |       |      | C     |       |   |       |     |   |

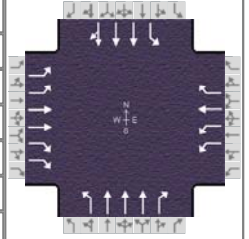
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.48 |  | B | 2.48 |  | B | 1.92 |  | B | 1.41 |  | A |
| Bicycle LOS Score / LOS    |      |  |   | 4.75 |  | E | 1.50 |  | A | 1.35 |  | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                        |               |                    |
|---------------------|----------------------------------------|---------------|--------------------|
| Agency              | Bohannon Huston                        |               |                    |
| Analyst             | CDV                                    | Analysis Date | 11/21/2019         |
| Jurisdiction        |                                        | Time Period   | AM Peak            |
| Urban Street        |                                        | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA                         | File Name     | Unser Intersection |
| Project Description | AM 2030 Build (Existing Signal Timing) |               |                    |



## Demand Information

|                     | EB  |     |     | WB  |     |     | NB  |     |     | SB  |      |    |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----|
| Approach Movement   | L   | T   | R   | L   | T   | R   | L   | T   | R   | L   | T    | R  |
| Demand ( v ), veh/h | 339 | 523 | 299 | 563 | 211 | 200 | 104 | 866 | 300 | 160 | 1735 | 78 |

## Signal Information

|               |       |                 |     |        |     |     |      |      |     |      |  |  |
|---------------|-------|-----------------|-----|--------|-----|-----|------|------|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |     |      |      |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |     |      |      |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 9.1 | 4.7 | 41.0 | 14.5 | 2.8 | 25.8 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.5 | 0.0 | 4.5  | 3.5  | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5 | 0.0 | 4.5  | 1.0  | 1.5 | 2.0  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                          | 19.0 | 31.8 | 27.3 | 40.1 | 16.1 | 50.0 | 20.9 | 54.7 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( MAH ), s               | 3.1  | 4.7  | 3.1  | 4.7  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 14.3 | 19.6 | 22.6 | 15.6 | 9.3  |      | 13.9 |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.2  | 6.2  | 0.0  | 7.5  | 0.1  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 |      | 1.00 |      |
| Max Out Probability                        | 1.00 | 0.22 | 1.00 | 0.05 | 0.00 |      | 0.08 |      |

## Movement Group Results

|                                                  | EB    |       |       | WB    |       |       | NB    |       |     | SB    |       |       |
|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|
| Approach Movement                                | L     | T     | R     | L     | T     | R     | L     | T     | R   | L     | T     | R     |
| Assigned Movement                                | 7     | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12  | 1     | 6     | 16    |
| Adjusted Flow Rate ( v ), veh/h                  | 339   | 523   | 299   | 563   | 211   | 200   | 106   | 885   | 307 | 166   | 1265  | 619   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810  | 1725  |     | 1810  | 1900  | 1856  |
| Queue Service Time ( g <sub>s</sub> ), s         | 12.3  | 17.6  | 12.2  | 20.6  | 12.0  | 13.6  | 7.3   | 19.6  |     | 11.9  | 39.8  | 39.7  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 12.3  | 17.6  | 12.2  | 20.6  | 12.0  | 13.6  | 7.3   | 19.6  |     | 11.9  | 39.8  | 39.7  |
| Green Ratio ( g/C )                              | 0.11  | 0.20  | 0.20  | 0.17  | 0.26  | 0.26  | 0.07  | 0.32  |     | 0.11  | 0.35  | 0.35  |
| Capacity ( c ), veh/h                            | 392   | 719   | 567   | 589   | 499   | 423   | 127   | 1632  |     | 194   | 1337  | 653   |
| Volume-to-Capacity Ratio ( X )                   | 0.864 | 0.727 | 0.528 | 0.955 | 0.423 | 0.473 | 0.836 | 0.542 |     | 0.855 | 0.946 | 0.948 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 260.1 | 319.5 | 195.8 | 451.9 | 238.3 | 231.7 | 134   | 336.4 |     | 238.5 | 482.2 | 504.6 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 10.4  | 12.8  | 7.8   | 18.1  | 9.5   | 9.3   | 5.4   | 13.5  |     | 9.5   | 19.3  | 20.2  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.93  | 0.00  | 0.98  | 1.56  | 0.00  | 0.00  | 0.30  | 0.00  |     | 0.49  | 0.00  | 0.00  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 56.8  | 48.8  | 46.6  | 53.6  | 39.8  | 40.4  | 48.9  | 41.8  |     | 63.5  | 23.6  | 22.3  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 15.7  | 2.1   | 1.1   | 40.1  | 0.4   | 0.6   | 5.2   | 1.2   |     | 9.8   | 11.3  | 21.7  |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 72.5  | 50.9  | 47.7  | 93.7  | 40.2  | 41.0  | 54.2  | 43.0  | 0.0 | 73.3  | 34.9  | 44.0  |
| Level of Service ( LOS )                         | E     | D     | D     | F     | D     | D     | D     | D     | A   | E     | C     | D     |
| Approach Delay, s/veh / LOS                      | 56.4  |       | E     | 71.3  |       | E     | 33.8  |       | C   | 40.7  |       | D     |
| Intersection Delay, s/veh / LOS                  | 47.8  |       |       |       |       |       | D     |       |     |       |       |       |

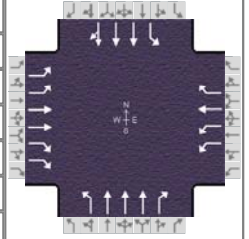
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.73 |  | C | 2.59 |  | C | 2.45 |  | B | 2.58 |  | C |
| Bicycle LOS Score / LOS    | 1.45 |  | A | 2.09 |  | B | 1.19 |  | A | 1.57 |  | B |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                        |               |                    |
|---------------------|----------------------------------------|---------------|--------------------|
| Agency              | Bohannon Huston                        |               |                    |
| Analyst             | CDV                                    | Analysis Date | 11/21/2019         |
| Jurisdiction        |                                        | Time Period   | PM Peak            |
| Urban Street        |                                        | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA                         | File Name     | Unser Intersection |
| Project Description | PM 2030 Build (Existing Signal Timing) |               |                    |



## Demand Information

|                       | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Approach Movement     | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 191 | 394 | 165 | 383 | 593 | 269 | 343 | 1552 | 323 | 247 | 934 | 202 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 56    | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 11.1 | 4.7 | 28.7 | 9.0 | 0.5 | 37.1 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 3.5 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 3.5 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 13.5 | 43.1 | 19.5 | 49.1 | 29.7 | 49.4 | 18.0 | 37.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 9.0  | 13.3 | 16.0 | 41.4 | 23.7 |      | 13.1 |      |
| Green Extension Time ( $g_e$ ), s | 0.1  | 6.8  | 0.0  | 1.7  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 1.00 | 0.09 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |       |       | NB    |       |     | SB     |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L     | T     | R   | L      | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12  | 1      | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 191   | 394   | 165   | 383   | 593   | 269   | 303   | 1372  | 286 | 225    | 710   | 325   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810  | 1725  |     | 1810   | 1900  | 1724  |
| Queue Service Time ( $g_s$ ), s                   | 7.0   | 11.3  | 5.7   | 14.0  | 39.4  | 17.4  | 21.7  | 33.0  |     | 11.1   | 20.9  | 20.3  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 7.0   | 11.3  | 5.7   | 14.0  | 39.4  | 17.4  | 21.7  | 33.0  |     | 11.1   | 20.9  | 20.3  |
| Green Ratio ( $g/C$ )                             | 0.07  | 0.29  | 0.29  | 0.11  | 0.33  | 0.33  | 0.17  | 0.31  |     | 0.09   | 0.22  | 0.22  |
| Capacity ( $c$ ), veh/h                           | 244   | 1034  | 814   | 378   | 630   | 534   | 315   | 1608  |     | 154    | 839   | 381   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.782 | 0.381 | 0.203 | 1.012 | 0.941 | 0.504 | 0.962 | 0.853 |     | 1.462  | 0.846 | 0.853 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 151.7 | 218.7 | 90.2  | 433.9 | 785.3 | 279   | 317.4 | 412.5 |     | 1487.5 | 290.6 | 271.9 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 6.1   | 8.7   | 3.6   | 17.4  | 31.4  | 11.2  | 12.7  | 16.5  |     | 59.5   | 11.6  | 10.9  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.54  | 0.00  | 0.45  | 1.50  | 0.00  | 0.00  | 0.71  | 0.00  |     | 3.07   | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5  | 37.2  | 35.2  | 58.0  | 42.2  | 34.9  | 56.6  | 47.2  |     | 64.8   | 29.7  | 25.3  |
| Incremental Delay ( $d_2$ ), s/veh                | 8.6   | 0.3   | 0.2   | 104.6 | 30.6  | 0.5   | 10.5  | 0.6   |     | 860.0  | 9.2   | 20.5  |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0    | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 68.1  | 37.5  | 35.4  | 162.6 | 72.8  | 35.4  | 67.1  | 47.8  | 0.0 | 924.8  | 39.0  | 45.8  |
| Level of Service (LOS)                            | E     | D     | D     | F     | E     | D     | E     | D     | A   | F      | D     | D     |
| Approach Delay, s/veh / LOS                       | 44.8  |       | D     | 92.3  |       | F     | 43.8  |       | D   | 198.9  |       | F     |
| Intersection Delay, s/veh / LOS                   | 93.0  |       |       |       |       |       | F     |       |     |        |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.72 |  | C | 2.59 |  | C | 2.45 |  | B | 2.60 |  | C |
| Bicycle LOS Score / LOS    | 1.11 |  | A | 2.54 |  | C | 1.71 |  | B | 1.25 |  | A |

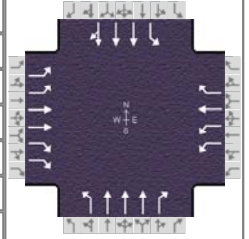
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | UNSER @ LADERA  |
| Project Description | AM 2030 Build   |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 1.000                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 1> 7:00                    |
| File Name       | Unser Intersections_AM.xus |



## Demand Information

|                       | EB  |     |     | WB  |     |     | NB  |     |     | SB  |      |    |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----|
| Approach Movement     | L   | T   | R   | L   | T   | R   | L   | T   | R   | L   | T    | R  |
| Demand ( $v$ ), veh/h | 339 | 523 | 299 | 563 | 211 | 200 | 104 | 866 | 300 | 160 | 1735 | 78 |

## Signal Information

|               |       |                 |     |        |     |     |      |      |     |      |  |  |  |  |
|---------------|-------|-----------------|-----|--------|-----|-----|------|------|-----|------|--|--|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |     |      |      |     |      |  |  |  |  |
| Offset, s     | 0     | Reference Point | End | Green  | 9.1 | 4.7 | 39.9 | 15.0 | 3.6 | 25.7 |  |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow | 3.5 | 0.0 | 4.5  | 3.5  | 4.0 | 4.0  |  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 3.5 | 0.0 | 4.5  | 1.0  | 1.5 | 2.0  |  |  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 19.5 | 31.7 | 28.6 | 40.7 | 16.1 | 48.9 | 20.9 | 53.6 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.7  | 3.1  | 4.7  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 14.3 | 19.6 | 22.4 | 15.5 | 9.3  |      | 13.9 |      |
| Green Extension Time ( $g_e$ ), s | 0.7  | 6.0  | 0.7  | 7.4  | 0.1  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.25 | 0.45 | 0.05 | 0.00 |      | 0.35 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |       |       | NB    |       |     | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L     | T     | R   | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12  | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 339   | 523   | 299   | 563   | 211   | 200   | 106   | 885   | 307 | 166   | 1265  | 619   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810  | 1725  |     | 1810  | 1900  | 1856  |
| Queue Service Time ( $g_s$ ), s                   | 12.3  | 17.6  | 12.2  | 20.4  | 11.9  | 13.5  | 7.3   | 19.7  |     | 11.9  | 41.2  | 41.3  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 12.3  | 17.6  | 12.2  | 20.4  | 11.9  | 13.5  | 7.3   | 19.7  |     | 11.9  | 41.2  | 41.3  |
| Green Ratio ( $g/C$ )                             | 0.12  | 0.20  | 0.20  | 0.18  | 0.27  | 0.27  | 0.07  | 0.31  |     | 0.11  | 0.34  | 0.34  |
| Capacity ( $c$ ), veh/h                           | 406   | 714   | 562   | 624   | 508   | 430   | 127   | 1588  |     | 194   | 1304  | 637   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.835 | 0.733 | 0.532 | 0.902 | 0.416 | 0.465 | 0.836 | 0.557 |     | 0.856 | 0.970 | 0.972 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 233.9 | 320.7 | 196.3 | 384.9 | 237.1 | 230.3 | 134.5 | 339.2 |     | 242.1 | 521.5 | 559.5 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 9.4   | 12.8  | 7.9   | 15.4  | 9.5   | 9.2   | 5.4   | 13.6  |     | 9.7   | 20.9  | 22.4  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.84  | 0.00  | 0.98  | 1.33  | 0.00  | 0.00  | 0.30  | 0.00  |     | 0.50  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 56.3  | 49.0  | 46.8  | 52.3  | 39.3  | 39.9  | 49.1  | 42.6  |     | 63.6  | 24.1  | 22.9  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 2.4   | 1.1   | 14.4  | 0.4   | 0.6   | 5.2   | 1.3   |     | 11.9  | 17.6  | 31.6  |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 58.1  | 51.3  | 47.9  | 66.8  | 39.7  | 40.4  | 54.3  | 43.9  | 0.0 | 75.5  | 41.8  | 54.4  |
| Level of Service (LOS)                            | E     | D     | D     | E     | D     | D     | D     | D     | A   | E     | D     | D     |
| Approach Delay, s/veh / LOS                       | 52.4  |       | D     | 55.5  |       | E     | 34.4  |       | C   | 48.3  |       | D     |
| Intersection Delay, s/veh / LOS                   | 47.2  |       |       |       |       |       | D     |       |     |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.73 |  | C | 2.59 |  | C | 2.45 |  | B | 2.58 |  | C |
| Bicycle LOS Score / LOS    | 1.45 |  | A | 2.09 |  | B | 1.19 |  | A | 1.57 |  | B |

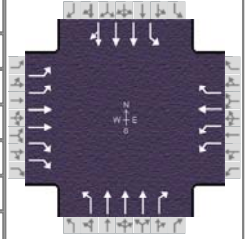
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | UNSER @ LADERA  |
| Project Description | PM 2030 Build   |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 1.000                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 1> 16:00                   |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Approach Movement     | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 191 | 394 | 165 | 383 | 593 | 269 | 343 | 1552 | 323 | 247 | 934 | 202 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 56    | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  |        |      |     |      |     |     |      |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |        |      |     |      |     |     |      |  |  |
|               |       |                 |     | Green  | 16.3 | 0.4 | 32.9 | 9.2 | 1.3 | 30.9 |  |  |
|               |       |                 |     | Yellow | 3.4  | 3.5 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 3.5 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 13.7 | 36.9 | 20.5 | 43.7 | 30.7 | 49.4 | 23.2 | 41.9 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 8.9  | 14.1 | 16.1 | 39.7 | 23.5 |      | 18.4 |      |
| Green Extension Time ( $g_e$ ), s | 0.3  | 5.9  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.22 | 1.00 | 1.00 | 0.16 |      | 1.00 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |        |       | NB    |       |     | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-----|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T      | R     | L     | T     | R   | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8      | 18    | 5     | 2     | 12  | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 191   | 394   | 165   | 383   | 593    | 269   | 303   | 1372  | 286 | 229   | 723   | 330   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900   | 1610  | 1810  | 1725  |     | 1810  | 1900  | 1724  |
| Queue Service Time ( $g_s$ ), s                   | 6.9   | 12.1  | 6.1   | 14.1  | 37.7   | 18.5  | 21.5  | 33.0  |     | 16.4  | 20.3  | 19.4  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 6.9   | 12.1  | 6.1   | 14.1  | 37.7   | 18.5  | 21.5  | 33.0  |     | 16.4  | 20.3  | 19.4  |
| Green Ratio ( $g/C$ )                             | 0.07  | 0.24  | 0.24  | 0.12  | 0.29   | 0.29  | 0.18  | 0.31  |     | 0.13  | 0.25  | 0.25  |
| Capacity ( $c$ ), veh/h                           | 250   | 860   | 677   | 405   | 550    | 466   | 329   | 1606  |     | 228   | 963   | 437   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.765 | 0.458 | 0.244 | 0.945 | 1.077  | 0.577 | 0.920 | 0.854 |     | 1.005 | 0.751 | 0.756 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 141.2 | 232.5 | 97.3  | 341.7 | 1451.4 | 298.8 | 294.7 | 412.4 |     | 525.8 | 307.6 | 269.9 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 5.6   | 9.3   | 3.9   | 13.7  | 58.1   | 12.0  | 11.8  | 16.5  |     | 21.0  | 12.3  | 10.8  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.50  | 0.00  | 0.49  | 1.18  | 0.00   | 0.00  | 0.65  | 0.00  |     | 1.08  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.3  | 42.4  | 40.1  | 57.1  | 46.2   | 39.4  | 54.4  | 47.2  |     | 62.8  | 31.1  | 27.0  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.9   | 0.5   | 0.3   | 46.4  | 175.4  | 1.5   | 3.3   | 0.6   |     | 113.2 | 4.6   | 10.2  |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 61.2  | 42.9  | 40.4  | 103.5 | 221.5  | 40.9  | 57.7  | 47.8  | 0.0 | 176.0 | 35.7  | 37.3  |
| Level of Service ( LOS )                          | E     | D     | D     | F     | F      | D     | E     | D     | A   | F     | D     | D     |
| Approach Delay, s/veh / LOS                       | 47.0  |       | D     | 146.2 |        | F     | 42.4  |       | D   | 61.2  |       | E     |
| Intersection Delay, s/veh / LOS                   | 72.3  |       |       |       |        |       | E     |       |     |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.73 |  | C | 2.59 |  | C | 2.45 |  | B | 2.60 |  | C |
| Bicycle LOS Score / LOS    | 1.11 |  | A | 2.54 |  | C | 1.71 |  | B | 1.25 |  | A |

## HCS7 Signals Multiple Period Text Report

File Name: Unser Intersections\_PM.xus  
 Analyst: CDV  
 Agency/Co.: Bohannon Huston  
 Analysis Date: 11/21/2019  
 Time Period: PM  
 Jurisdiction:  
 Analysis Year: 2030  
 Project Description: PM 2030 Build  
 Urban Street:

## INTERSECTION # 1 UNSER / LADERA

## Demand (veh/p)

| Time Period | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4:30        | 53  | 105 | 45  | 97  | 143 | 77  | 86  | 345 | 89  | 56  | 213 | 45  |
| 4:45        | 38  | 87  | 37  | 86  | 154 | 78  | 82  | 384 | 73  | 60  | 222 | 51  |
| 5:00        | 56  | 104 | 55  | 107 | 152 | 62  | 77  | 407 | 74  | 63  | 259 | 52  |
| 5:15        | 43  | 99  | 29  | 93  | 143 | 52  | 99  | 415 | 87  | 68  | 240 | 55  |
| 5:30        | 42  | 61  | 35  | 76  | 98  | 61  | 97  | 322 | 73  | 56  | 241 | 63  |
| 5:45        | 56  | 73  | 55  | 82  | 86  | 52  | 91  | 305 | 69  | 64  | 241 | 45  |
| 6:00        | 45  | 47  | 22  | 92  | 99  | 61  | 93  | 289 | 79  | 56  | 234 | 64  |
| 6:15        | 43  | 55  | 32  | 79  | 89  | 48  | 86  | 272 | 68  | 64  | 186 | 32  |
| 6:30        | 32  | 40  | 38  | 87  | 94  | 60  | 69  | 203 | 52  | 46  | 164 | 46  |
| 6:45        | 46  | 43  | 36  | 84  | 62  | 52  | 62  | 188 | 55  | 46  | 118 | 32  |

## Delay (s)

| Time Period | EBL  | EBT  | EBR  | WBL   | WBT   | WBR  | NBL    | NBT  | NBR  | SBL   | SBT  | SBR  |
|-------------|------|------|------|-------|-------|------|--------|------|------|-------|------|------|
| 4:30        | 60.8 | 43.4 | 40.6 | 90.5  | 102.7 | 44.9 | 248.6  | 48.4 | 0.0  | 108.1 | 24.8 | 23.1 |
| 4:45        | 61.9 | 41.9 | 39.7 | 74.2  | 157.4 | 42.0 | 560.9  | 58.2 | 42.7 | 97.1  | 42.0 | 44.6 |
| 5:00        | 60.6 | 43.3 | 41.3 | 117.6 | 261.3 | 41.0 | 811.1  | 70.5 | 42.9 | 87.2  | 42.7 | 44.4 |
| 5:15        | 61.5 | 43.0 | 39.5 | 99.1  | 333.6 | 37.5 | 1167.3 | 88.0 | 47.2 | 119.2 | 41.6 | 43.9 |
| 5:30        | 61.6 | 41.1 | 40.3 | 70.4  | 179.0 | 40.5 | 1679.4 | 43.1 | 40.8 | 81.5  | 38.9 | 40.5 |
| 5:45        | 60.6 | 47.8 | 47.7 | 72.6  | 56.2  | 46.8 | 1385.6 | 39.0 | 37.2 | 70.1  | 43.0 | 46.0 |
| 6:00        | 61.4 | 46.2 | 45.1 | 80.0  | 60.0  | 46.2 | 1448.6 | 36.6 | 37.6 | 75.1  | 44.4 | 48.5 |
| 6:15        | 61.5 | 47.9 | 47.0 | 71.5  | 57.2  | 45.9 | 1281.9 | 35.5 | 35.2 | 73.9  | 39.4 | 41.3 |
| 6:30        | 62.4 | 48.2 | 48.9 | 74.6  | 56.8  | 46.7 | 1069.9 | 28.5 | 28.4 | 59.2  | 39.1 | 41.0 |
| 6:45        | 61.3 | 54.2 | 54.7 | 73.4  | 55.5  | 55.8 | 552.1  | 23.7 | 24.2 | 65.5  | 36.8 | 38.2 |

## Level of Service (LOS)

| Time Period | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 4:30        | E   | D   | D   | F   | F   | D   | F   | D   | A   | F   | C   | C   |
| 4:45        | E   | D   | D   | E   | F   | D   | F   | E   | D   | F   | D   | D   |
| 5:00        | E   | D   | D   | F   | F   | D   | F   | F   | D   | F   | D   | D   |
| 5:15        | E   | D   | D   | F   | F   | D   | F   | F   | D   | F   | D   | D   |
| 5:30        | E   | D   | D   | E   | F   | D   | F   | D   | D   | F   | D   | D   |
| 5:45        | E   | D   | D   | E   | E   | D   | F   | D   | D   | E   | D   | D   |
| 6:00        | E   | D   | D   | F   | E   | D   | F   | D   | D   | E   | D   | D   |
| 6:15        | E   | D   | D   | E   | E   | D   | F   | D   | D   | E   | D   | D   |
| 6:30        | E   | D   | D   | E   | E   | D   | F   | C   | C   | E   | D   | D   |
| 6:45        | E   | D   | D   | E   | E   | E   | F   | C   | C   | E   | D   | D   |

## Queue Storage Ratio (QSR)

| Time Period | EBL  | EBT | EBR  | WBL  | WBT | WBR | NBL  | NBT | NBR  | SBL  | SBT | SBR |
|-------------|------|-----|------|------|-----|-----|------|-----|------|------|-----|-----|
| 4:30        | 0.56 | 0   | 0.53 | 1.11 | 0   | 0   | 1.84 | 0   | 1.54 | 0.8  | 0   | 0   |
| 4:45        | 0.4  | 0   | 0.43 | 0.92 | 0   | 0   | 2.98 | 0   | 1.22 | 0.76 | 0   | 0   |
| 5:00        | 0.59 | 0   | 0.66 | 1.34 | 0   | 0   | 3.87 | 0   | 1.24 | 0.65 | 0   | 0   |
| 5:15        | 0.45 | 0   | 0.34 | 1.15 | 0   | 0   | 5.59 | 0   | 1.49 | 0.86 | 0   | 0   |
| 5:30        | 0.44 | 0   | 0.41 | 0.81 | 0   | 0   | 7.57 | 0   | 1.2  | 0.68 | 0   | 0   |
| 5:45        | 0.59 | 0   | 0.72 | 0.87 | 0   | 0   | 8.45 | 0   | 1.09 | 0.72 | 0   | 0   |
| 6:00        | 0.48 | 0   | 0.27 | 1    | 0   | 0   | 8.6  | 0   | 1.24 | 0.65 | 0   | 0   |
| 6:15        | 0.45 | 0   | 0.41 | 0.84 | 0   | 0   | 8.37 | 0   | 1.05 | 0.74 | 0   | 0   |
| 6:30        | 0.34 | 0   | 0.5  | 0.93 | 0   | 0   | 7.17 | 0   | 0.76 | 0.51 | 0   | 0   |
| 6:45        | 0.49 | 0   | 0.5  | 0.9  | 0   | 0   | 4.93 | 0   | 0.74 | 0.53 | 0   | 0   |

## Intersection Delay and LOS

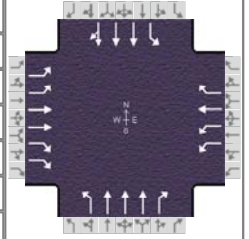
| Time Period |       |   |
|-------------|-------|---|
| 4:30        | 64.3  | E |
| 4:45        | 97.6  | F |
| 5:00        | 123.9 | F |
| 5:15        | 175.5 | F |
| 5:30        | 187.6 | F |
| 5:45        | 148.5 | F |
| 6:00        | 158.0 | F |

|      |       |   |
|------|-------|---|
| 6:15 | 146.9 | F |
| 6:30 | 122.1 | F |
| 6:45 | 81.9  | F |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |



## Demand Information

| Approach Movement   | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|---------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
|                     | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( v ), veh/h | 212 | 420 | 180 | 388 | 572 | 308 | 344 | 1380 | 356 | 224 | 852 | 180 |

## Signal Information

|               |       |                 |     |        |      |     |      |      |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|------|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |      |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |      |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 16.3 | 1.7 | 38.7 | 10.0 | 0.5 | 30.9 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 0.0 | 4.5  | 3.5  | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 0.0 | 4.5  | 1.0  | 1.5 | 2.0  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                          | 14.5 | 36.9 | 20.5 | 42.9 | 24.9 | 49.4 | 23.2 | 47.7 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( MAH ), s               | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 9.7  | 15.0 | 16.3 | 38.9 | 20.0 |      | 17.7 |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.3  | 6.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability                        | 0.00 | 0.28 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |

## Movement Group Results

|                                                  | EB    |       |       | WB    |       |       | NB    |       |     | SB    |       |       |
|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|
| Approach Movement                                | L     | T     | R     | L     | T     | R     | L     | T     | R   | L     | T     | R     |
| Assigned Movement                                | 7     | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12  | 1     | 6     | 16    |
| Adjusted Flow Rate ( v ), veh/h                  | 212   | 420   | 180   | 388   | 572   | 308   | 344   | 1380  | 356 | 218   | 689   | 316   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810  | 1725  |     | 1810  | 1900  | 1728  |
| Queue Service Time ( g <sub>s</sub> ), s         | 7.7   | 13.0  | 6.7   | 14.3  | 36.9  | 22.0  | 18.0  | 32.6  |     | 15.7  | 15.5  | 13.9  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 7.7   | 13.0  | 6.7   | 14.3  | 36.9  | 22.0  | 18.0  | 32.6  |     | 15.7  | 15.5  | 13.9  |
| Green Ratio ( g/C )                              | 0.08  | 0.24  | 0.24  | 0.12  | 0.28  | 0.28  | 0.14  | 0.31  |     | 0.13  | 0.30  | 0.30  |
| Capacity ( c ), veh/h                            | 271   | 860   | 677   | 405   | 539   | 457   | 250   | 1607  |     | 228   | 1130  | 514   |
| Volume-to-Capacity Ratio ( X )                   | 0.782 | 0.489 | 0.266 | 0.957 | 1.062 | 0.675 | 1.376 | 0.859 |     | 0.959 | 0.610 | 0.616 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 156.5 | 246.3 | 106.8 | 321.2 | 878.2 | 351.8 | 827.2 | 521.6 |     | 389   | 228   | 193.7 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 6.3   | 9.9   | 4.3   | 12.8  | 35.1  | 14.1  | 33.1  | 20.9  |     | 15.6  | 9.1   | 7.7   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.56  | 0.00  | 0.53  | 1.11  | 0.00  | 0.00  | 1.84  | 0.00  |     | 0.80  | 0.00  | 0.00  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 58.9  | 42.7  | 40.3  | 57.2  | 46.6  | 41.3  | 56.0  | 42.1  |     | 64.7  | 22.7  | 18.5  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 1.9   | 0.6   | 0.3   | 33.4  | 56.1  | 3.6   | 192.5 | 6.2   |     | 43.4  | 2.1   | 4.6   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |     | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 60.8  | 43.4  | 40.6  | 90.5  | 102.7 | 44.9  | 248.6 | 48.4  | 0.0 | 108.1 | 24.8  | 23.1  |
| Level of Service ( LOS )                         | E     | D     | D     | F     | F     | D     | F     | D     | A   | F     | C     | C     |
| Approach Delay, s/veh / LOS                      | 47.3  |       | D     | 84.9  |       | F     | 73.2  |       | E   | 39.2  |       | D     |
| Intersection Delay, s/veh / LOS                  | 64.3  |       |       |       |       |       | E     |       |     |       |       |       |

## Multimodal Results

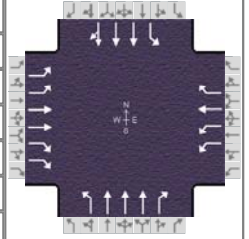
|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.73 |  | C | 2.59 |  | C | 2.45 |  | B | 2.59 |  | C |
| Bicycle LOS Score / LOS    | 1.16 |  | A | 2.58 |  | C | 1.63 |  | B | 1.18 |  | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |

## Intersection Information



## Demand Information

|                       | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Approach Movement     | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 152 | 348 | 148 | 344 | 616 | 312 | 328 | 1536 | 292 | 240 | 888 | 204 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 16.3 | 1.7 | 38.7 | 7.7 | 2.3 | 31.3 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 0.0 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 0.0 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 12.2 | 37.3 | 20.1 | 45.2 | 24.9 | 49.4 | 23.2 | 47.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.1  | 3.1  | 4.1  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 7.5  | 12.5 | 14.5 | 41.2 | 20.0 |      | 17.4 |      |
| Green Extension Time ( $g_e$ ), s | 0.2  | 6.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.17 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |        |       | NB     |       |       | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T      | R     | L      | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8      | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 152   | 348   | 148   | 344   | 616    | 312   | 328    | 1536  | 292   | 215   | 671   | 306   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900   | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1716  |
| Queue Service Time ( $g_s$ ), s                   | 5.5   | 10.5  | 5.4   | 12.5  | 39.2   | 21.8  | 18.0   | 37.8  | 19.9  | 15.4  | 16.0  | 14.8  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 5.5   | 10.5  | 5.4   | 12.5  | 39.2   | 21.8  | 18.0   | 37.8  | 19.9  | 15.4  | 16.0  | 14.8  |
| Green Ratio ( $g/C$ )                             | 0.06  | 0.24  | 0.24  | 0.11  | 0.30   | 0.30  | 0.14   | 0.31  | 0.31  | 0.13  | 0.30  | 0.30  |
| Capacity ( $c$ ), veh/h                           | 209   | 871   | 687   | 394   | 572    | 485   | 250    | 1607  | 500   | 228   | 1130  | 510   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.727 | 0.399 | 0.216 | 0.873 | 1.076  | 0.643 | 1.312  | 0.956 | 0.584 | 0.943 | 0.594 | 0.600 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 112.7 | 207.4 | 86.1  | 266.2 | 1158.1 | 345.2 | 1341.4 | 623.5 | 330.5 | 370.7 | 394.8 | 376   |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 4.5   | 8.3   | 3.4   | 10.6  | 46.3   | 13.8  | 53.7   | 24.9  | 13.2  | 14.8  | 15.8  | 15.0  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.40  | 0.00  | 0.43  | 0.92  | 0.00   | 0.00  | 2.98   | 0.00  | 1.22  | 0.76  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 60.1  | 41.4  | 39.5  | 56.8  | 45.4   | 39.4  | 56.0   | 44.0  | 37.8  | 56.8  | 40.0  | 40.1  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 0.4   | 0.2   | 17.4  | 59.8   | 2.6   | 166.1  | 14.2  | 4.9   | 40.3  | 2.0   | 4.6   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 52.2   | 0.0   | 338.7  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 61.9  | 41.9  | 39.7  | 74.2  | 157.4  | 42.0  | 560.9  | 58.2  | 42.7  | 97.1  | 42.0  | 44.6  |
| Level of Service ( LOS )                          | E     | D     | D     | E     | F      | D     | F      | E     | D     | F     | D     | D     |
| Approach Delay, s/veh / LOS                       | 46.1  |       | D     | 106.6 |        | F     | 132.5  |       | F     | 52.6  |       | D     |
| Intersection Delay, s/veh / LOS                   | 97.6  |       |       |       |        |       | F      |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.73 | C | 2.59 | C | 2.45 | B | 2.59 | C |
| Bicycle LOS Score / LOS    | 1.02 | A | 2.59 | C | 1.67 | B | 1.22 | A |

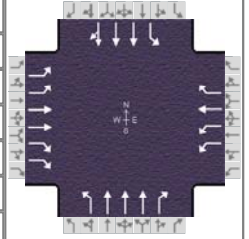
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | UNSER @ LADERA  |
| Project Description | PM 2030 Build   |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 3> 5:00                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |     |     | WB  |     |     | NB  |      |     | SB  |      |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|------|-----|
| Approach Movement     | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T    | R   |
| Demand ( $v$ ), veh/h | 224 | 416 | 220 | 428 | 608 | 248 | 308 | 1628 | 296 | 252 | 1036 | 208 |

## Signal Information

|               |       |                 |     |        |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|---------------|-------|-----------------|-----|--------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |  |  |  |  |  |  |  |  |  |                                                                                     |
| Offset, s     | 0     | Reference Point | End | Green  | 16.3                                                                              | 1.7                                                                                | 38.7                                                                                | 10.5                                                                                | 0.0                                                                                 | 30.9                                                                                |    |   |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow | 3.4                                                                               | 0.0                                                                                | 4.5                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 4.0                                                                                 |    |   |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 3.5                                                                               | 0.0                                                                                | 4.5                                                                                 | 1.0                                                                                 | 1.5                                                                                 | 2.0                                                                                 |    |   |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 15.0 | 36.9 | 20.5 | 42.4 | 24.9 | 49.4 | 23.2 | 47.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 10.1 | 14.9 | 17.0 | 38.4 | 20.0 |      | 17.7 |      |
| Green Extension Time ( $g_e$ ), s | 0.3  | 6.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.28 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |        |       | NB     |       |       | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T      | R     | L      | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8      | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 224   | 416   | 220   | 428   | 608    | 248   | 308    | 1628  | 296   | 219   | 740   | 340   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900   | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1734  |
| Queue Service Time ( $g_s$ ), s                   | 8.1   | 12.9  | 8.3   | 15.0  | 36.4   | 17.0  | 18.0   | 40.4  | 20.2  | 15.7  | 15.9  | 14.1  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 8.1   | 12.9  | 8.3   | 15.0  | 36.4   | 17.0  | 18.0   | 40.4  | 20.2  | 15.7  | 15.9  | 14.1  |
| Green Ratio ( $g/C$ )                             | 0.08  | 0.24  | 0.24  | 0.12  | 0.28   | 0.28  | 0.14   | 0.31  | 0.31  | 0.13  | 0.30  | 0.30  |
| Capacity ( $c$ ), veh/h                           | 283   | 860   | 677   | 405   | 532    | 451   | 250    | 1607  | 500   | 227   | 1130  | 516   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.791 | 0.484 | 0.325 | 1.056 | 1.142  | 0.550 | 1.233  | 1.013 | 0.592 | 0.962 | 0.655 | 0.659 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 165.3 | 244.2 | 132.6 | 388   | 1519.1 | 278.6 | 1740.8 | 712   | 335.3 | 317.4 | 409.5 | 385.2 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 6.6   | 9.8   | 5.3   | 15.5  | 60.8   | 11.1  | 69.6   | 28.5  | 13.4  | 12.7  | 16.4  | 15.4  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.59  | 0.00  | 0.66  | 1.34  | 0.00   | 0.00  | 3.87   | 0.00  | 1.24  | 0.65  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 58.7  | 42.7  | 40.9  | 57.5  | 46.8   | 39.8  | 56.0   | 44.8  | 37.9  | 56.8  | 41.4  | 41.4  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.9   | 0.6   | 0.4   | 60.1  | 84.6   | 1.2   | 134.7  | 25.7  | 5.1   | 30.4  | 1.4   | 3.0   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 129.9  | 0.0   | 620.3  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 60.6  | 43.3  | 41.3  | 117.6 | 261.3  | 41.0  | 811.1  | 70.5  | 42.9  | 87.2  | 42.7  | 44.4  |
| Level of Service ( LOS )                          | E     | D     | D     | F     | F      | D     | F      | F     | D     | F     | D     | D     |
| Approach Delay, s/veh / LOS                       | 47.3  |       | D     | 170.9 |        | F     | 169.1  |       | F     | 50.7  |       | D     |
| Intersection Delay, s/veh / LOS                   | 123.9 |       |       |       |        |       | F      |       |       |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.73 |  | C | 2.59 |  | C | 2.45 |  | B | 2.59 |  | C |
| Bicycle LOS Score / LOS    | 1.20 |  | A | 2.61 |  | C | 1.72 |  | B | 1.31 |  | A |

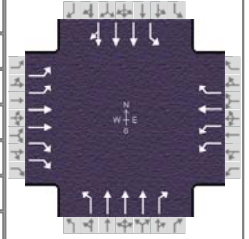
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |
|---------------------|-----------------|
| Agency              | Bohannon Huston |
| Analyst             | CDV             |
| Jurisdiction        |                 |
| Urban Street        |                 |
| Intersection        | UNSER @ LADERA  |
| Project Description | PM 2030 Build   |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 4> 5:15                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                     | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|---------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Approach Movement   | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( v ), veh/h | 172 | 396 | 116 | 372 | 572 | 208 | 396 | 1660 | 348 | 272 | 960 | 220 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |  |  |
| Offset, s     | 0     | Reference Point | End | Green  | 16.3 | 1.7 | 38.7 | 8.5 | 2.0 | 30.9 |  |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow | 3.4  | 0.0 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 3.5  | 0.0 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                          | 13.0 | 36.9 | 20.5 | 44.4 | 24.9 | 49.4 | 23.2 | 47.7 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( MAH ), s               | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 8.3  | 14.2 | 15.6 | 40.4 | 20.0 |      | 18.4 |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.3  | 5.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability                        | 0.00 | 0.18 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |

## Movement Group Results

|                                                  | EB    |       |       | WB    |        |       | NB     |       |       | SB    |       |       |
|--------------------------------------------------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|
| Approach Movement                                | L     | T     | R     | L     | T      | R     | L      | T     | R     | L     | T     | R     |
| Assigned Movement                                | 7     | 4     | 14    | 3     | 8      | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( v ), veh/h                  | 172   | 396   | 116   | 372   | 572    | 208   | 396    | 1660  | 348   | 235   | 699   | 318   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1757  | 1809  | 1425  | 1757  | 1900   | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1716  |
| Queue Service Time ( g <sub>s</sub> ), s         | 6.3   | 12.2  | 4.2   | 13.6  | 38.4   | 13.6  | 18.0   | 40.3  | 24.7  | 16.4  | 15.1  | 12.9  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 6.3   | 12.2  | 4.2   | 13.6  | 38.4   | 13.6  | 18.0   | 40.3  | 24.7  | 16.4  | 15.1  | 12.9  |
| Green Ratio ( g/C )                              | 0.07  | 0.24  | 0.24  | 0.12  | 0.30   | 0.30  | 0.14   | 0.31  | 0.31  | 0.13  | 0.30  | 0.30  |
| Capacity ( c ), veh/h                            | 230   | 860   | 677   | 405   | 561    | 475   | 250    | 1607  | 500   | 228   | 1130  | 510   |
| Volume-to-Capacity Ratio ( X )                   | 0.748 | 0.461 | 0.171 | 0.917 | 1.020  | 0.437 | 1.585  | 1.033 | 0.696 | 1.030 | 0.619 | 0.624 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 127.2 | 233.6 | 67.1  | 333.6 | 1779.8 | 230.1 | 2514.5 | 790.5 | 403.3 | 415.2 | 410.7 | 387.3 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 5.1   | 9.3   | 2.7   | 13.3  | 71.2   | 9.2   | 100.6  | 31.6  | 16.1  | 16.6  | 16.4  | 15.5  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.45  | 0.00  | 0.34  | 1.15  | 0.00   | 0.00  | 5.59   | 0.00  | 1.49  | 0.86  | 0.00  | 0.00  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 59.7  | 42.4  | 39.4  | 57.3  | 45.8   | 37.1  | 56.0   | 44.8  | 39.4  | 56.8  | 39.5  | 39.2  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 1.8   | 0.5   | 0.2   | 25.0  | 43.0   | 0.5   | 281.4  | 31.5  | 7.8   | 62.4  | 2.1   | 4.7   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   | 0.0   | 16.8  | 244.8  | 0.0   | 829.9  | 11.7  | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 61.5  | 43.0  | 39.5  | 99.1  | 333.6  | 37.5  | 1167.3 | 88.0  | 47.2  | 119.2 | 41.6  | 43.9  |
| Level of Service ( LOS )                         | E     | D     | D     | F     | F      | D     | F      | F     | D     | F     | D     | D     |
| Approach Delay, s/veh / LOS                      | 47.1  |       | D     | 204.4 |        | F     | 259.9  |       | F     | 56.8  |       | E     |
| Intersection Delay, s/veh / LOS                  | 175.5 |       |       |       |        |       | F      |       |       |       |       |       |

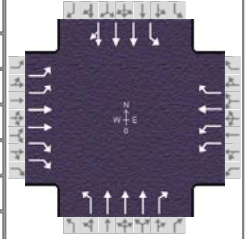
## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.73 |  | C | 2.59 |  | C | 2.45 |  | B | 2.59 |  | C |
| Bicycle LOS Score / LOS    | 1.05 |  | A | 2.39 |  | B | 1.81 |  | B | 1.29 |  | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |



## Demand Information

|                     | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|---------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Approach Movement   | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( v ), veh/h | 168 | 244 | 140 | 304 | 392 | 244 | 388 | 1288 | 292 | 224 | 964 | 252 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 17.7 | 0.8 | 38.7 | 8.4 | 0.4 | 25.2 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 3.5 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 3.5 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                          | 12.9 | 36.5 | 18.7 | 42.4 | 27.1 | 51.2 | 23.6 | 47.7 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( MAH ), s               | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 8.1  | 9.6  | 13.1 | 27.7 | 27.4 |      | 17.6 |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.3  | 4.4  | 0.2  | 3.3  | 0.0  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability                        | 0.00 | 0.03 | 1.00 | 0.28 | 1.00 |      | 0.01 |      |

## Movement Group Results

|                                                  | EB    |       |       | WB    |       |       | NB     |       |       | SB    |       |       |
|--------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| Approach Movement                                | L     | T     | R     | L     | T     | R     | L      | T     | R     | L     | T     | R     |
| Assigned Movement                                | 7     | 4     | 14    | 3     | 8     | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( v ), veh/h                  | 168   | 244   | 140   | 304   | 392   | 244   | 388    | 1288  | 292   | 217   | 813   | 364   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1696  |
| Queue Service Time ( g <sub>s</sub> ), s         | 6.1   | 7.6   | 5.4   | 11.1  | 25.7  | 17.7  | 25.4   | 27.7  | 18.5  | 15.6  | 20.0  | 17.2  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 6.1   | 7.6   | 5.4   | 11.1  | 25.7  | 17.7  | 25.4   | 27.7  | 18.5  | 15.6  | 20.0  | 17.2  |
| Green Ratio ( g/C )                              | 0.06  | 0.19  | 0.19  | 0.10  | 0.24  | 0.24  | 0.20   | 0.36  | 0.36  | 0.14  | 0.30  | 0.30  |
| Capacity ( c ), veh/h                            | 226   | 849   | 669   | 357   | 558   | 450   | 250    | 1794  | 522   | 234   | 1130  | 504   |
| Volume-to-Capacity Ratio ( X )                   | 0.744 | 0.288 | 0.209 | 0.851 | 0.702 | 0.542 | 1.553  | 0.718 | 0.559 | 0.926 | 0.719 | 0.722 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 124.4 | 145.9 | 82.1  | 234.5 | 1131  | 273.2 | 3408.2 | 489.4 | 322.8 | 327.8 | 384.9 | 350.3 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 5.0   | 5.8   | 3.3   | 9.4   | 45.2  | 10.9  | 136.3  | 19.6  | 12.9  | 13.1  | 15.4  | 14.0  |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 0.44  | 0.00  | 0.41  | 0.81  | 0.00  | 0.00  | 7.57   | 0.00  | 1.20  | 0.68  | 0.00  | 0.00  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 59.8  | 40.9  | 40.1  | 57.4  | 45.8  | 39.7  | 56.0   | 37.8  | 36.5  | 59.2  | 36.0  | 34.1  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 1.8   | 0.3   | 0.2   | 13.0  | 3.6   | 0.8   | 267.5  | 2.5   | 4.3   | 16.9  | 2.9   | 6.4   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 129.6 | 0.0   | 1356.0 | 2.7   | 0.0   | 5.3   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 61.6  | 41.1  | 40.3  | 70.4  | 179.0 | 40.5  | 1679.4 | 43.1  | 40.8  | 81.5  | 38.9  | 40.5  |
| Level of Service (LOS)                           | E     | D     | D     | E     | F     | D     | F      | D     | D     | F     | D     | D     |
| Approach Delay, s/veh / LOS                      | 47.2  |       | D     | 107.9 |       | F     | 365.4  |       | F     | 45.9  |       | D     |
| Intersection Delay, s/veh / LOS                  | 187.6 |       |       |       |       |       | F      |       |       |       |       |       |

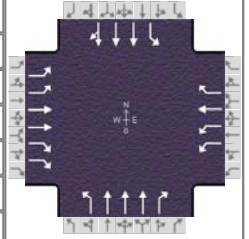
## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.73 | C | 2.60 | C | 2.44 | B | 2.59 | C |
| Bicycle LOS Score / LOS    | 0.94 | A | 2.04 | B | 1.57 | B | 1.28 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |



## Demand Information

| Approach Movement     | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
|                       | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 224 | 292 | 220 | 328 | 344 | 208 | 364 | 1220 | 276 | 256 | 964 | 180 |

## Signal Information

|               |       |                 |     |        |      |     |      |      |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|------|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |      |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |      |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 20.1 | 5.9 | 38.7 | 10.5 | 4.6 | 23.8 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 0.0 | 4.5  | 3.5  | 0.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 0.0 | 4.5  | 1.0  | 0.0 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 15.0 | 29.8 | 19.5 | 34.4 | 32.9 | 53.5 | 27.1 | 47.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.4  | 3.1  | 4.4  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 10.1 | 11.3 | 13.9 | 24.5 | 27.9 |      | 20.0 |      |
| Green Extension Time ( $g_e$ ), s | 0.3  | 4.9  | 0.1  | 3.9  | 0.0  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.06 | 1.00 | 0.27 | 1.00 |      | 0.15 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |       |       | NB     |       |       | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L      | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 224   | 292   | 220   | 328   | 344   | 208   | 364    | 1220  | 276   | 251   | 767   | 353   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1743  |
| Queue Service Time ( $g_s$ ), s                   | 8.1   | 9.3   | 8.9   | 11.9  | 22.5  | 15.1  | 25.9   | 26.3  | 17.7  | 18.0  | 17.9  | 16.4  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 8.1   | 9.3   | 8.9   | 11.9  | 22.5  | 15.1  | 25.9   | 26.3  | 17.7  | 18.0  | 17.9  | 16.4  |
| Green Ratio ( $g/C$ )                             | 0.08  | 0.18  | 0.18  | 0.11  | 0.22  | 0.22  | 0.20   | 0.34  | 0.34  | 0.15  | 0.30  | 0.30  |
| Capacity ( $c$ ), veh/h                           | 283   | 663   | 523   | 380   | 415   | 352   | 361    | 1771  | 551   | 282   | 1131  | 519   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.791 | 0.440 | 0.421 | 0.864 | 0.829 | 0.591 | 1.009  | 0.689 | 0.501 | 0.890 | 0.678 | 0.681 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 165.3 | 190.8 | 143.9 | 253.2 | 424.4 | 254.2 | 3801.4 | 422   | 295.4 | 347.4 | 407.2 | 393.4 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 6.6   | 7.6   | 5.8   | 10.1  | 17.0  | 10.2  | 152.1  | 16.9  | 11.8  | 13.9  | 16.3  | 15.7  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.59  | 0.00  | 0.72  | 0.87  | 0.00  | 0.00  | 8.45   | 0.00  | 1.09  | 0.72  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 58.7  | 47.2  | 47.0  | 57.0  | 48.5  | 45.6  | 52.0   | 36.8  | 33.9  | 54.0  | 40.4  | 40.4  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.9   | 0.7   | 0.8   | 15.6  | 7.7   | 1.2   | 49.7   | 2.2   | 3.2   | 16.1  | 2.6   | 5.6   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1283.9 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 60.6  | 47.8  | 47.7  | 72.6  | 56.2  | 46.8  | 1385.6 | 39.0  | 37.2  | 70.1  | 43.0  | 46.0  |
| Level of Service (LOS)                            | E     | D     | D     | E     | E     | D     | F      | D     | D     | E     | D     | D     |
| Approach Delay, s/veh / LOS                       | 51.7  |       | D     | 60.1  |       | E     | 302.3  |       | F     | 48.7  |       | D     |
| Intersection Delay, s/veh / LOS                   | 148.5 |       |       |       |       |       | F      |       |       |       |       |       |

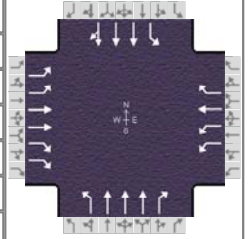
## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.73 | C | 2.60 | C | 2.44 | B | 2.59 | C |
| Bicycle LOS Score / LOS    | 1.09 | A | 1.94 | B | 1.51 | B | 1.26 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |



## Demand Information

| Approach Movement   | EB  |     |    | WB  |     |     | NB  |      |     | SB  |     |     |
|---------------------|-----|-----|----|-----|-----|-----|-----|------|-----|-----|-----|-----|
|                     | L   | T   | R  | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( v ), veh/h | 180 | 188 | 88 | 368 | 396 | 244 | 372 | 1156 | 316 | 224 | 936 | 256 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 18.9 | 6.4 | 38.7 | 8.8 | 1.7 | 23.6 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 0.0 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 0.0 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                          | 13.3 | 29.6 | 20.5 | 36.8 | 32.2 | 55.0 | 24.9 | 47.7 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( MAH ), s               | 3.1  | 4.1  | 3.1  | 4.1  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 8.5  | 7.8  | 15.5 | 28.1 | 27.2 |      | 18.7 |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.3  | 3.6  | 0.0  | 2.7  | 0.0  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability                        | 0.00 | 0.01 | 1.00 | 0.26 | 1.00 |      | 0.08 |      |

## Movement Group Results

| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L      | T     | R     | L     | T     | R     |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 180   | 188   | 88    | 368   | 396   | 244   | 372    | 1156  | 316   | 233   | 859   | 382   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1688  |
| Queue Service Time ( $g_s$ ), s                   | 6.5   | 5.8   | 3.4   | 13.5  | 26.1  | 17.7  | 25.2   | 24.4  | 20.7  | 16.7  | 22.5  | 19.4  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 6.5   | 5.8   | 3.4   | 13.5  | 26.1  | 17.7  | 25.2   | 24.4  | 20.7  | 16.7  | 22.5  | 19.4  |
| Green Ratio ( $g/C$ )                             | 0.07  | 0.18  | 0.18  | 0.12  | 0.24  | 0.24  | 0.19   | 0.35  | 0.35  | 0.15  | 0.30  | 0.30  |
| Capacity ( $c$ ), veh/h                           | 238   | 658   | 518   | 405   | 450   | 382   | 350    | 1831  | 570   | 250   | 1131  | 503   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.756 | 0.286 | 0.170 | 0.908 | 0.879 | 0.639 | 1.062  | 0.631 | 0.555 | 0.933 | 0.759 | 0.761 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 133.1 | 119.4 | 54.7  | 291   | 495.8 | 289.8 | 3870.9 | 389.5 | 333.8 | 314.8 | 427   | 404.8 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 5.3   | 4.8   | 2.2   | 11.6  | 19.8  | 11.6  | 154.8  | 15.6  | 13.4  | 12.6  | 17.1  | 16.2  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.48  | 0.00  | 0.27  | 1.00  | 0.00  | 0.00  | 8.60   | 0.00  | 1.24  | 0.65  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5  | 45.9  | 44.9  | 56.8  | 47.8  | 44.6  | 52.4   | 34.9  | 33.7  | 55.1  | 40.9  | 41.0  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 0.3   | 0.2   | 23.2  | 12.2  | 1.6   | 65.5   | 1.7   | 3.9   | 20.0  | 3.5   | 7.6   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1330.7 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 61.4  | 46.2  | 45.1  | 80.0  | 60.0  | 46.2  | 1448.6 | 36.6  | 37.6  | 75.1  | 44.4  | 48.5  |
| Level of Service (LOS)                            | E     | D     | D     | F     | E     | D     | F      | D     | D     | E     | D     | D     |
| Approach Delay, s/veh / LOS                       | 52.0  | D     |       | 64.0  |       | E     | 321.6  |       | F     | 50.3  |       | D     |
| Intersection Delay, s/veh / LOS                   | 158.0 |       |       |       |       |       | F      |       |       |       |       |       |

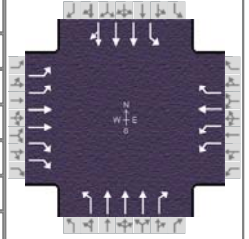
## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.73 | C | 2.60 | C | 2.44 | B | 2.59 | C |
| Bicycle LOS Score / LOS    | 0.86 | A | 2.15 | B | 1.50 | B | 1.27 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |



## Demand Information

|                       | EB  |     |     | WB  |     |     | NB  |      |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Approach Movement     | L   | T   | R   | L   | T   | R   | L   | T    | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 172 | 220 | 128 | 316 | 356 | 192 | 344 | 1088 | 272 | 256 | 744 | 128 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 21.0 | 5.5 | 40.0 | 8.5 | 0.6 | 22.4 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 0.0 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 0.0 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 13.0 | 28.4 | 19.1 | 34.6 | 34.7 | 55.3 | 27.2 | 47.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 8.3  | 9.0  | 13.5 | 25.4 | 26.3 |      | 20.8 |      |
| Green Extension Time ( $g_e$ ), s | 0.3  | 3.8  | 0.1  | 3.2  | 0.1  | 0.0  | 0.2  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.01 | 1.00 | 0.14 | 1.00 |      | 0.05 |      |

## Movement Group Results

|                                                   | EB    |       |       | WB    |       |       | NB     |       |       | SB    |       |       |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L      | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 172   | 220   | 128   | 316   | 356   | 192   | 344    | 1088  | 272   | 262   | 609   | 285   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1754  |
| Queue Service Time ( $g_s$ ), s                   | 6.3   | 7.0   | 5.1   | 11.5  | 23.4  | 13.7  | 24.3   | 22.5  | 17.2  | 18.8  | 13.2  | 11.6  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 6.3   | 7.0   | 5.1   | 11.5  | 23.4  | 13.7  | 24.3   | 22.5  | 17.2  | 18.8  | 13.2  | 11.6  |
| Green Ratio ( $g/C$ )                             | 0.07  | 0.17  | 0.17  | 0.10  | 0.22  | 0.22  | 0.20   | 0.35  | 0.35  | 0.16  | 0.31  | 0.31  |
| Capacity ( $c$ ), veh/h                           | 230   | 624   | 492   | 369   | 417   | 354   | 386    | 1842  | 573   | 282   | 1131  | 522   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.748 | 0.352 | 0.260 | 0.857 | 0.853 | 0.543 | 0.891  | 0.591 | 0.475 | 0.930 | 0.538 | 0.545 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 127.2 | 143   | 81.9  | 243.7 | 441.3 | 235.6 | 3765.9 | 363.8 | 284.7 | 356.6 | 304.7 | 296.6 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 5.1   | 5.7   | 3.3   | 9.7   | 17.7  | 9.4   | 150.6  | 14.6  | 11.4  | 14.3  | 12.2  | 11.9  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.45  | 0.00  | 0.41  | 0.84  | 0.00  | 0.00  | 8.37   | 0.00  | 1.05  | 0.74  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.7  | 47.4  | 46.6  | 57.2  | 48.7  | 44.9  | 51.1   | 34.1  | 32.4  | 54.0  | 38.0  | 38.1  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 0.5   | 0.4   | 14.3  | 8.5   | 1.0   | 21.3   | 1.4   | 2.8   | 20.0  | 1.4   | 3.2   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1209.5 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 61.5  | 47.9  | 47.0  | 71.5  | 57.2  | 45.9  | 1281.9 | 35.5  | 35.2  | 73.9  | 39.4  | 41.3  |
| Level of Service (LOS)                            | E     | D     | D     | E     | E     | D     | F      | D     | D     | E     | D     | D     |
| Approach Delay, s/veh / LOS                       | 52.2  |       | D     | 59.9  |       | E     | 287.1  |       | F     | 47.7  |       | D     |
| Intersection Delay, s/veh / LOS                   | 146.9 |       |       |       |       |       | F      |       |       |       |       |       |

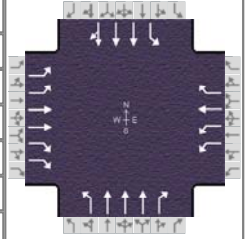
## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.73 | C | 2.60 | C | 2.44 | B | 2.59 | C |
| Bicycle LOS Score / LOS    | 0.92 | A | 1.91 | B | 1.42 | A | 1.11 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |



## Demand Information

| Approach Movement     | EB  |     |     | WB  |     |     | NB  |     |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                       | L   | T   | R   | L   | T   | R   | L   | T   | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 128 | 160 | 152 | 348 | 376 | 240 | 276 | 812 | 208 | 184 | 656 | 184 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 14.6 | 0.2 | 45.1 | 6.8 | 3.4 | 21.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.4  | 3.5 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 3.5 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 11.3 | 27.0 | 20.2 | 35.9 | 35.1 | 60.7 | 22.0 | 47.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.2  | 3.1  | 4.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 6.7  | 8.1  | 14.7 | 26.7 | 21.5 |      | 14.5 |      |
| Green Extension Time ( $g_e$ ), s | 0.2  | 3.8  | 0.0  | 3.2  | 0.2  | 0.0  | 0.2  | 0.0  |
| Phase Call Probability            | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.02 | 1.00 | 0.13 | 0.01 |      | 0.00 |      |

## Movement Group Results

| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L      | T     | R     | L     | T     | R     |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 128   | 160   | 152   | 348   | 376   | 240   | 276    | 812   | 208   | 174   | 545   | 248   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1687  |
| Queue Service Time ( $g_s$ ), s                   | 4.7   | 5.0   | 6.1   | 12.7  | 24.7  | 17.5  | 19.5   | 14.5  | 11.5  | 12.5  | 12.1  | 10.6  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 4.7   | 5.0   | 6.1   | 12.7  | 24.7  | 17.5  | 19.5   | 14.5  | 11.5  | 12.5  | 12.1  | 10.6  |
| Green Ratio ( $g/C$ )                             | 0.05  | 0.16  | 0.16  | 0.11  | 0.23  | 0.23  | 0.17   | 0.40  | 0.40  | 0.11  | 0.35  | 0.35  |
| Capacity ( $c$ ), veh/h                           | 183   | 585   | 461   | 398   | 437   | 371   | 391    | 2060  | 641   | 211   | 1131  | 502   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.698 | 0.274 | 0.330 | 0.875 | 0.859 | 0.647 | 0.706  | 0.394 | 0.325 | 0.824 | 0.482 | 0.493 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 95.1  | 103.6 | 99.7  | 269.2 | 461.8 | 286.9 | 3227.7 | 253.3 | 205.9 | 246.3 | 302.1 | 287.3 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 3.8   | 4.1   | 4.0   | 10.8  | 18.5  | 11.5  | 129.1  | 10.1  | 8.2   | 9.9   | 12.1  | 11.5  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.34  | 0.00  | 0.50  | 0.93  | 0.00  | 0.00  | 7.17   | 0.00  | 0.76  | 0.51  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 60.6  | 47.8  | 48.3  | 56.7  | 48.0  | 45.3  | 51.0   | 27.9  | 27.1  | 56.5  | 37.8  | 37.9  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 0.4   | 0.6   | 17.8  | 8.8   | 1.4   | 4.9    | 0.6   | 1.3   | 2.7   | 1.3   | 3.0   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1014.0 | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 62.4  | 48.2  | 48.9  | 74.6  | 56.8  | 46.7  | 1069.9 | 28.5  | 28.4  | 59.2  | 39.1  | 41.0  |
| Level of Service (LOS)                            | E     | D     | D     | E     | E     | D     | F      | C     | C     | E     | D     | D     |
| Approach Delay, s/veh / LOS                       | 52.5  | D     |       | 60.7  | E     |       | 250.3  | F     |       | 43.2  | D     |       |
| Intersection Delay, s/veh / LOS                   | 122.1 |       |       |       |       |       | F      |       |       |       |       |       |

## Multimodal Results

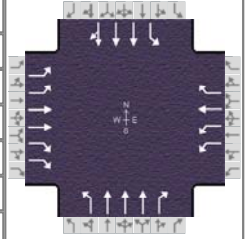
|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.60 | C | 2.44 | B | 2.58 | C |
| Bicycle LOS Score / LOS    | 0.85 | A | 2.08 | B | 1.20 | A | 1.05 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                 |               |                    |
|---------------------|-----------------|---------------|--------------------|
| Agency              | Bohannon Huston |               |                    |
| Analyst             | CDV             | Analysis Date | 11/21/2019         |
| Jurisdiction        |                 | Time Period   | PM                 |
| Urban Street        |                 | Analysis Year | 2030               |
| Intersection        | UNSER @ LADERA  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build   |               |                    |

## Intersection Information



## Demand Information

| Approach Movement     | EB  |     |     | WB  |     |     | NB  |     |     | SB  |     |     |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                       | L   | T   | R   | L   | T   | R   | L   | T   | R   | L   | T   | R   |
| Demand ( $v$ ), veh/h | 184 | 172 | 144 | 336 | 248 | 208 | 248 | 752 | 220 | 184 | 472 | 128 |

## Signal Information

|               |       |                 |     |        |      |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|------|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |      |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |      |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  |        |      |     |      |     |     |      |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |        |      |     |      |     |     |      |  |  |
|               |       |                 |     | Green  | 16.7 | 3.2 | 53.3 | 9.0 | 0.8 | 15.1 |  |  |
|               |       |                 |     | Yellow | 3.4  | 0.0 | 4.5  | 3.5 | 4.0 | 4.0  |  |  |
|               |       |                 |     | Red    | 3.5  | 0.0 | 4.5  | 1.0 | 1.5 | 2.0  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 4.0  |
| Phase Duration, s                 | 13.5 | 21.1 | 19.8 | 27.5 | 41.4 | 67.0 | 22.1 | 47.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.0  | 5.5  | 6.0  | 7.0  | 9.0  | 6.9  | 9.0  |
| Max Allow Headway ( $MAH$ ), s    | 3.1  | 4.3  | 3.1  | 4.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 8.7  | 8.1  | 14.2 | 18.3 | 19.5 |      | 16.5 |      |
| Green Extension Time ( $g_e$ ), s | 0.3  | 3.3  | 0.1  | 3.2  | 0.3  | 0.0  | 0.2  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 1.00 |      |
| Max Out Probability               | 0.00 | 0.01 | 1.00 | 0.02 | 0.00 |      | 0.00 |      |

## Movement Group Results

| Approach Movement                                 | L     | T     | R     | L     | T     | R     | L      | T     | R     | L     | T     | R     |
|---------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|
| Assigned Movement                                 | 7     | 4     | 14    | 3     | 8     | 18    | 5      | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 184   | 172   | 144   | 336   | 248   | 208   | 248    | 752   | 220   | 202   | 452   | 208   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1757  | 1809  | 1425  | 1757  | 1900  | 1610  | 1810   | 1725  | 1610  | 1810  | 1900  | 1694  |
| Queue Service Time ( $g_s$ ), s                   | 6.7   | 5.7   | 6.1   | 12.2  | 16.3  | 16.1  | 17.5   | 12.5  | 11.6  | 14.5  | 9.3   | 7.5   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 6.7   | 5.7   | 6.1   | 12.2  | 16.3  | 16.1  | 17.5   | 12.5  | 11.6  | 14.5  | 9.3   | 7.5   |
| Green Ratio ( $g/C$ )                             | 0.07  | 0.12  | 0.12  | 0.11  | 0.17  | 0.17  | 0.15   | 0.43  | 0.43  | 0.13  | 0.41  | 0.41  |
| Capacity ( $c$ ), veh/h                           | 242   | 421   | 331   | 387   | 314   | 266   | 478    | 2309  | 718   | 211   | 1132  | 505   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.759 | 0.409 | 0.435 | 0.869 | 0.791 | 0.783 | 0.519  | 0.326 | 0.306 | 0.959 | 0.399 | 0.413 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 136.1 | 119.3 | 100.8 | 259.6 | 316.2 | 274.7 | 2216.7 | 217.7 | 200.2 | 256.7 | 217.9 | 211.5 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 5.4   | 4.8   | 4.0   | 10.4  | 12.6  | 11.0  | 88.7   | 8.7   | 8.0   | 10.3  | 8.7   | 8.5   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 0.49  | 0.00  | 0.50  | 0.90  | 0.00  | 0.00  | 4.93   | 0.00  | 0.74  | 0.53  | 0.00  | 0.00  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5  | 53.3  | 53.5  | 56.9  | 52.1  | 52.0  | 47.8   | 23.3  | 23.1  | 56.5  | 35.9  | 36.1  |
| Incremental Delay ( $d_2$ ), s/veh                | 1.8   | 0.9   | 1.3   | 16.5  | 3.4   | 3.8   | 0.5    | 0.4   | 1.1   | 9.1   | 0.9   | 2.1   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 503.8  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 61.3  | 54.2  | 54.7  | 73.4  | 55.5  | 55.8  | 552.1  | 23.7  | 24.2  | 65.5  | 36.8  | 38.2  |
| Level of Service (LOS)                            | E     | D     | D     | E     | E     | E     | F      | C     | C     | E     | D     | D     |
| Approach Delay, s/veh / LOS                       | 57.0  | E     |       | 63.2  | E     |       | 131.2  | F     |       | 43.9  | D     |       |
| Intersection Delay, s/veh / LOS                   | 81.9  |       |       |       |       |       | F      |       |       |       |       |       |

## Multimodal Results

| Pedestrian LOS Score / LOS | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
|                            | 2.74 | C | 2.60 | C | 2.43 | B | 2.58 | C |
| Bicycle LOS Score / LOS    | 0.90 | A | 1.79 | B | 1.16 | A | 0.92 | A |

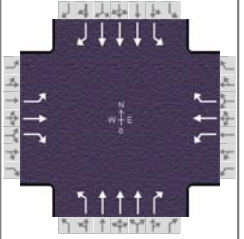
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 1> 4:30                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                     | EB  |    |     | WB  |    |     | NB  |      |     | SB |     |     |
|---------------------|-----|----|-----|-----|----|-----|-----|------|-----|----|-----|-----|
| Approach Movement   | L   | T  | R   | L   | T  | R   | L   | T    | R   | L  | T   | R   |
| Demand ( v ), veh/h | 296 | 28 | 128 | 144 | 60 | 140 | 292 | 1400 | 132 | 80 | 952 | 268 |

## Signal Information

|               |       |                 |     |        |     |      |      |      |      |     |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|------|------|-----|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |      |      |     |  |
| Offset, s     | 0     | Reference Point | End | Green  | 7.4 | 13.0 | 59.0 | 11.1 | 14.0 | 0.0 |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow | 3.5 | 3.5  | 4.5  | 3.5  | 4.0  | 0.0 |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0  | 1.0  | 1.0  | 2.5  | 0.0 |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                          | 15.6 | 20.5 | 15.6 | 20.5 | 29.4 | 82.0 | 11.9 | 64.5 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( MAH ), s               | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 13.1 | 12.2 | 12.5 | 13.2 | 24.6 |      | 7.8  |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.0  | 0.7  | 0.0  | 0.7  | 0.4  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 |      | 0.94 |      |
| Max Out Probability                        | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                  | EB    |       |     | WB    |       |     | NB    |       |     | SB    |       |     |
|--------------------------------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Approach Movement                                | L     | T     | R   | L     | T     | R   | L     | T     | R   | L     | T     | R   |
| Assigned Movement                                | 7     | 4     | 14  | 3     | 8     | 18  | 5     | 2     | 12  | 1     | 6     | 16  |
| Adjusted Flow Rate ( v ), veh/h                  | 296   | 28    | 128 | 144   | 60    | 140 | 304   | 1458  | 138 | 80    | 952   | 268 |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1781  | 1870  |     | 1781  | 1870  |     | 1739  | 1658  |     | 1781  | 1698  |     |
| Queue Service Time ( g <sub>s</sub> ), s         | 11.1  | 1.8   |     | 10.5  | 3.8   |     | 22.6  | 24.9  |     | 5.8   | 16.3  |     |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 11.1  | 1.8   |     | 10.5  | 3.8   |     | 22.6  | 24.9  |     | 5.8   | 16.3  |     |
| Green Ratio ( g/C )                              | 0.09  | 0.11  |     | 0.09  | 0.11  |     | 0.19  | 0.59  |     | 0.06  | 0.45  |     |
| Capacity ( c ), veh/h                            | 152   | 201   |     | 152   | 201   |     | 333   | 2928  |     | 101   | 2314  |     |
| Volume-to-Capacity Ratio ( X )                   | 1.946 | 0.139 |     | 0.947 | 0.299 |     | 0.913 | 0.498 |     | 0.788 | 0.411 |     |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 966.7 | 38.1  |     | 290.4 | 83.3  |     | 370.8 | 345.9 |     | 124.9 | 274.5 |     |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 38.1  | 1.5   |     | 11.4  | 3.3   |     | 14.3  | 13.3  |     | 4.9   | 10.8  |     |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 5.37  | 0.00  |     | 1.14  | 0.33  |     | 0.77  | 0.00  |     | 0.29  | 0.00  |     |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 59.5  | 52.6  |     | 59.2  | 53.5  |     | 58.3  | 19.1  |     | 60.5  | 23.8  |     |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 448.9 | 0.1   |     | 56.5  | 0.3   |     | 2.0   | 0.3   |     | 5.0   | 0.5   |     |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Control Delay ( d ), s/veh                       | 508.3 | 52.7  | 0.0 | 115.7 | 53.8  | 0.0 | 60.3  | 19.4  | 0.0 | 65.5  | 24.4  | 0.0 |
| Level of Service ( LOS )                         | F     | D     | A   | F     | D     | A   | E     | B     | A   | E     | C     | A   |
| Approach Delay, s/veh / LOS                      | 336.1 | F     |     | 57.8  | E     |     | 24.5  | C     |     | 21.9  | C     |     |
| Intersection Delay, s/veh / LOS                  | 61.8  |       |     |       |       |     | E     |       |     |       |       |     |

## Multimodal Results

|                            | EB   |   |  | WB   |   |  | NB   |   |  | SB   |   |  |
|----------------------------|------|---|--|------|---|--|------|---|--|------|---|--|
| Pedestrian LOS Score / LOS | 2.74 | C |  | 2.74 | C |  | 2.08 | B |  | 2.11 | B |  |
| Bicycle LOS Score / LOS    | 1.23 | A |  | 1.06 | A |  | 1.49 | A |  | 1.20 | A |  |

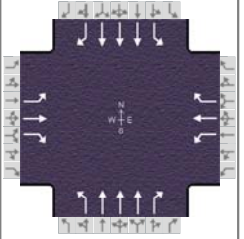
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 2> 4:45                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                     | EB  |    |     | WB  |    |     | NB  |      |     | SB |     |     |
|---------------------|-----|----|-----|-----|----|-----|-----|------|-----|----|-----|-----|
| Approach Movement   | L   | T  | R   | L   | T  | R   | L   | T    | R   | L  | T   | R   |
| Demand ( v ), veh/h | 216 | 28 | 124 | 120 | 48 | 132 | 288 | 1524 | 184 | 40 | 948 | 276 |

## Signal Information

|               |       |                 |     |        |     |      |      |      |     |      |  |  |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|------|-----|------|--|--|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |      |     |      |  |  |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |      |     |      |  |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 3.7 | 14.7 | 61.9 | 10.4 | 0.7 | 13.1 |  |  |  |  |
|               |       |                 |     | Yellow | 3.5 | 3.5  | 4.5  | 3.5  | 0.0 | 3.0  |  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0  | 1.0  | 1.0  | 0.0 | 3.5  |  |  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                          | 15.6 | 20.3 | 14.9 | 19.6 | 27.2 | 86.6 | 8.2  | 67.6 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( MAH ), s               | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 13.1 | 11.7 | 10.5 | 12.4 | 22.6 |      | 4.9  |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.0  | 0.7  | 0.0  | 0.7  | 0.3  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 |      | 0.76 |      |
| Max Out Probability                        | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                  | EB     |       |       | WB    |       |       | NB    |       |       | SB    |       |       |
|--------------------------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                | L      | T     | R     | L     | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                | 7      | 4     | 14    | 3     | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( v ), veh/h                  | 216    | 28    | 124   | 120   | 48    | 132   | 289   | 1527  | 184   | 40    | 948   | 276   |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1810   | 1900  | 1610  | 1810  | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( g <sub>s</sub> ), s         | 11.1   | 1.7   | 9.7   | 8.5   | 3.0   | 10.4  | 20.6  | 25.2  | 8.3   | 2.9   | 15.3  | 14.1  |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 11.1   | 1.7   | 9.7   | 8.5   | 3.0   | 10.4  | 20.6  | 25.2  | 8.3   | 2.9   | 15.3  | 14.1  |
| Green Ratio ( g/C )                              | 0.09   | 0.11  | 0.11  | 0.08  | 0.10  | 0.10  | 0.18  | 0.62  | 0.62  | 0.03  | 0.48  | 0.48  |
| Capacity ( c ), veh/h                            | 155    | 202   | 171   | 144   | 192   | 162   | 315   | 3227  | 1004  | 52    | 2474  | 770   |
| Volume-to-Capacity Ratio ( X )                   | 1.398  | 0.138 | 0.723 | 0.832 | 0.251 | 0.813 | 0.915 | 0.473 | 0.184 | 0.770 | 0.383 | 0.359 |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 1467.8 | 37.6  | 180.8 | 214.9 | 65.6  | 195.6 | 304.5 | 255.3 | 90.5  | 64.4  | 256.9 | 234.3 |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 58.7   | 1.5   | 7.2   | 8.6   | 2.6   | 7.8   | 12.2  | 10.2  | 3.6   | 2.6   | 10.3  | 9.4   |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 8.15   | 0.00  | 0.00  | 0.84  | 0.26  | 0.77  | 0.63  | 0.00  | 0.00  | 0.15  | 0.00  | 0.59  |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 59.5   | 52.7  | 56.2  | 59.0  | 53.9  | 57.2  | 52.7  | 13.1  | 10.4  | 62.7  | 21.7  | 21.4  |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 213.4  | 0.1   | 2.2   | 26.8  | 0.3   | 3.7   | 1.6   | 0.2   | 0.1   | 8.5   | 0.5   | 1.3   |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 838.3  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( d ), s/veh                       | 1111.1 | 52.8  | 58.4  | 85.8  | 54.2  | 61.0  | 54.3  | 13.2  | 10.5  | 71.2  | 22.1  | 22.7  |
| Level of Service ( LOS )                         | F      | D     | E     | F     | D     | E     | D     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                      | 675.9  | F     |       | 69.8  | E     |       | 18.9  | B     |       | 23.8  | C     |       |
| Intersection Delay, s/veh / LOS                  | 85.8   |       |       |       |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.74 |  | C | 2.74 |  | C | 2.08 |  | B | 2.10 |  | B |
| Bicycle LOS Score / LOS    | 1.09 |  | A | 0.98 |  | A | 1.59 |  | B | 1.18 |  | A |

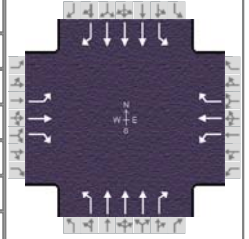
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 3> 5:00                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |    |     | WB  |    |     | NB  |      |     | SB |      |     |
|-----------------------|-----|----|-----|-----|----|-----|-----|------|-----|----|------|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R   | L   | T    | R   | L  | T    | R   |
| Demand ( $v$ ), veh/h | 184 | 40 | 116 | 316 | 96 | 128 | 380 | 1524 | 108 | 88 | 1028 | 328 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 130.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 19.4 | 15.6 | 19.4 | 33.7 | 82.6 | 12.5 | 61.3 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.2  | 2.6  | 3.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 13.1 | 11.1 | 13.1 | 12.1 | 30.1 |      | 8.2  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.7  | 0.0  | 0.7  | 0.5  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.96 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                   | EB     |       |       | WB     |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 184    | 40    | 116   | 316    | 96    | 128   | 393   | 1575  | 112   | 88    | 1028  | 328   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 11.1   | 2.5   | 9.1   | 11.1   | 6.2   | 10.1  | 28.1  | 28.6  | 5.1   | 6.2   | 18.7  | 19.3  |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 11.1   | 2.5   | 9.1   | 11.1   | 6.2   | 10.1  | 28.1  | 28.6  | 5.1   | 6.2   | 18.7  | 19.3  |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.10  | 0.10  | 0.09   | 0.10  | 0.10  | 0.23  | 0.59  | 0.59  | 0.06  | 0.42  | 0.42  |
| Capacity ( $c$ ), veh/h                           | 155    | 188   | 159   | 155    | 188   | 159   | 407   | 3068  | 954   | 111   | 2222  | 691   |
| Volume-to-Capacity Ratio ( $X$ )                  | 1.191  | 0.213 | 0.728 | 2.045  | 0.511 | 0.803 | 0.965 | 0.513 | 0.117 | 0.792 | 0.463 | 0.475 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 1712.7 | 54.6  | 170.2 | 1036.1 | 135.8 | 190.7 | 386   | 268.2 | 57.4  | 134.7 | 304.1 | 304.8 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 68.5   | 2.2   | 6.8   | 41.4   | 5.4   | 7.6   | 15.4  | 10.7  | 2.3   | 5.4   | 12.2  | 12.2  |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 9.51   | 0.00  | 0.00  | 4.06   | 0.53  | 0.75  | 0.80  | 0.00  | 0.00  | 0.31  | 0.00  | 0.76  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 53.9  | 56.9  | 59.5   | 55.6  | 57.3  | 49.4  | 15.3  | 11.6  | 60.2  | 26.4  | 26.6  |
| Incremental Delay ( $d_2$ ), s/veh                | 132.9  | 0.2   | 2.4   | 492.1  | 0.8   | 3.6   | 5.4   | 0.1   | 0.1   | 4.7   | 0.7   | 2.3   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1196.5 | 0.0   | 0.0   | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 1388.8 | 54.1  | 59.3  | 551.6  | 56.4  | 60.9  | 54.9  | 15.4  | 11.6  | 64.9  | 27.1  | 28.9  |
| Level of Service (LOS)                            | F      | D     | E     | F      | E     | E     | D     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                       | 778.2  | F     |       | 347.2  | F     |       | 22.7  | C     |       | 29.8  | C     |       |
| Intersection Delay, s/veh / LOS                   | 123.2  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.08 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.05 | A | 1.38 | A | 1.59 | B | 1.28 | A |

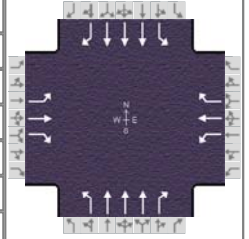
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 4> 5:15                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |    |     | WB  |    |    | NB  |      |     | SB |     |     |
|-----------------------|-----|----|-----|-----|----|----|-----|------|-----|----|-----|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R  | L   | T    | R   | L  | T   | R   |
| Demand ( $v$ ), veh/h | 240 | 40 | 164 | 120 | 80 | 84 | 376 | 1636 | 108 | 88 | 968 | 188 |

## Signal Information

|               |       |                 |     |        |     |      |      |      |     |      |
|---------------|-------|-----------------|-----|--------|-----|------|------|------|-----|------|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |      |     |      |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |      |     |      |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 8.0 | 15.1 | 55.3 | 10.4 | 0.7 | 15.0 |
|               |       |                 |     | Yellow | 3.5 | 3.5  | 4.5  | 3.5  | 0.0 | 3.0  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0  | 1.0  | 1.0  | 0.0 | 3.5  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 22.2 | 15.6 | 22.2 | 33.4 | 79.7 | 12.5 | 58.8 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 13.1 | 15.0 | 10.5 | 8.3  | 27.2 |      | 8.2  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.7  | 0.0  | 0.7  | 0.4  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 |      | 0.96 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                   | EB     |       |       | WB     |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 240    | 40    | 164   | 120    | 80    | 84    | 352   | 1533  | 101   | 88    | 968   | 188   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 11.1   | 2.5   | 13.0  | 8.5    | 5.1   | 6.3   | 25.2  | 28.5  | 4.6   | 6.2   | 17.2  | 9.9   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 11.1   | 2.5   | 13.0  | 8.5    | 5.1   | 6.3   | 25.2  | 28.5  | 4.6   | 6.2   | 17.2  | 9.9   |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.12  | 0.12  | 0.08   | 0.12  | 0.12  | 0.21  | 0.58  | 0.58  | 0.06  | 0.43  | 0.43  |
| Capacity ( $c$ ), veh/h                           | 155    | 229   | 194   | 155    | 229   | 194   | 403   | 2956  | 920   | 111   | 2121  | 660   |
| Volume-to-Capacity Ratio ( $X$ )                  | 1.553  | 0.175 | 0.844 | 0.777  | 0.349 | 0.432 | 0.875 | 0.519 | 0.110 | 0.793 | 0.456 | 0.285 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 2147.3 | 53.1  | 231.4 | 1148.8 | 108.7 | 1.4   | 364.5 | 307.1 | 58.7  | 134.7 | 295.3 | 183.1 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 85.9   | 2.1   | 9.3   | 46.0   | 4.3   | 0.1   | 14.6  | 12.3  | 2.3   | 5.4   | 11.8  | 7.3   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 11.93  | 0.00  | 0.00  | 4.51   | 0.43  | 0.01  | 0.76  | 0.00  | 0.00  | 0.31  | 0.00  | 0.46  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 51.3  | 56.0  | 59.5   | 52.5  | 53.0  | 49.6  | 17.5  | 12.8  | 60.2  | 27.9  | 25.7  |
| Incremental Delay ( $d_2$ ), s/veh                | 278.3  | 0.1   | 3.8   | 19.9   | 0.3   | 0.6   | 1.2   | 0.1   | 0.1   | 4.7   | 0.7   | 1.1   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1368.3 | 0.0   | 0.0   | 840.2  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 1706.0 | 51.5  | 59.8  | 919.6  | 52.8  | 53.6  | 50.8  | 17.6  | 12.9  | 64.9  | 28.6  | 26.7  |
| Level of Service (LOS)                            | F      | D     | E     | F      | D     | D     | D     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                       | 948.9  |       | F     | 419.3  |       | F     | 23.3  |       | C     | 30.9  |       | C     |
| Intersection Delay, s/veh / LOS                   | 157.9  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.09 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.22 | A | 0.96 | A | 1.65 | B | 1.17 | A |

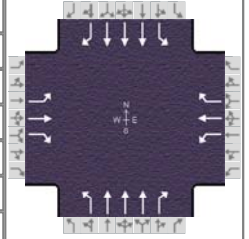
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 5> 5:30                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |    |     | WB  |    |     | NB  |      |     | SB |      |     |
|-----------------------|-----|----|-----|-----|----|-----|-----|------|-----|----|------|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R   | L   | T    | R   | L  | T    | R   |
| Demand ( $v$ ), veh/h | 160 | 64 | 188 | 184 | 64 | 108 | 356 | 1176 | 100 | 80 | 1052 | 164 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 130.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 24.2 | 15.6 | 24.2 | 32.0 | 78.4 | 11.8 | 58.2 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 13.1 | 16.8 | 13.1 | 10.1 | 28.5 |      | 7.7  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.8  | 0.0  | 0.9  | 0.4  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.94 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 160    | 64    | 188   | 184    | 64    | 108   | 371   | 1225  | 104   | 80    | 1052  | 164   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 11.1   | 3.9   | 14.8  | 11.1   | 3.9   | 8.1   | 26.5  | 16.2  | 2.5   | 5.7   | 20.1  | 8.9   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 11.1   | 3.9   | 14.8  | 11.1   | 3.9   | 8.1   | 26.5  | 16.2  | 2.5   | 5.7   | 20.1  | 8.9   |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.14  | 0.14  | 0.09   | 0.14  | 0.14  | 0.22  | 0.56  | 0.56  | 0.06  | 0.39  | 0.39  |
| Capacity ( $c$ ), veh/h                           | 155    | 258   | 219   | 155    | 258   | 219   | 383   | 2902  | 903   | 102   | 2098  | 653   |
| Volume-to-Capacity Ratio ( $X$ )                  | 1.036  | 0.248 | 0.858 | 1.191  | 0.248 | 0.493 | 0.968 | 0.422 | 0.115 | 0.786 | 0.501 | 0.251 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 2341.3 | 84.4  | 257.2 | 1222.6 | 84.4  | 148   | 437.7 | 248.3 | 62.9  | 122.9 | 323.8 | 158.2 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 93.7   | 3.4   | 10.3  | 48.9   | 3.4   | 5.9   | 17.5  | 9.9   | 2.5   | 4.9   | 13.0  | 6.3   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 13.01  | 0.00  | 0.00  | 4.79   | 0.33  | 0.58  | 0.91  | 0.00  | 0.00  | 0.29  | 0.00  | 0.40  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 50.2  | 54.9  | 59.5   | 50.2  | 52.0  | 50.3  | 16.2  | 13.4  | 60.6  | 28.8  | 25.6  |
| Incremental Delay ( $d_2$ ), s/veh                | 82.1   | 0.2   | 3.8   | 132.9  | 0.2   | 0.6   | 14.4  | 0.3   | 0.2   | 4.9   | 0.9   | 0.9   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1866.3 | 0.0   | 0.0   | 739.7  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 2007.8 | 50.4  | 58.7  | 932.1  | 50.4  | 52.6  | 64.7  | 16.5  | 13.5  | 65.5  | 29.7  | 26.5  |
| Level of Service (LOS)                            | F      | D     | E     | F      | D     | D     | E     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                       | 814.4  | F     |       | 506.8  | F     |       | 26.8  | C     |       | 31.5  | C     |       |
| Intersection Delay, s/veh / LOS                   | 160.0  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.09 | B | 2.12 | B |
| Bicycle LOS Score / LOS    | 1.17 | A | 1.08 | A | 1.39 | A | 1.20 | A |

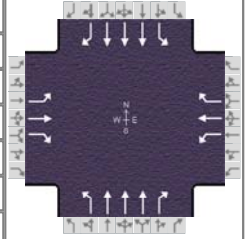
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |               |                            |
|---------------------|-----------------------|---------------|----------------------------|
| Agency              | Bohannon Huston       |               |                            |
| Analyst             | CDV                   | Analysis Date | 11/21/2019                 |
| Jurisdiction        |                       | Time Period   | PM                         |
| Urban Street        |                       | Analysis Year | 2030                       |
| Intersection        | UNSER @ TIERRA PIN... | File Name     | Unser Intersections_PM.xus |
| Project Description | PM 2030 Build         |               |                            |

## Intersection Information

|                 |         |
|-----------------|---------|
| Duration, h     | 0.250   |
| Area Type       | Other   |
| PHF             | 1.00    |
| Analysis Period | 6> 5:45 |



## Demand Information

|                       | EB  |    |     | WB  |    |    | NB  |      |     | SB |      |     |
|-----------------------|-----|----|-----|-----|----|----|-----|------|-----|----|------|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R  | L   | T    | R   | L  | T    | R   |
| Demand ( $v$ ), veh/h | 160 | 36 | 144 | 168 | 56 | 80 | 336 | 1300 | 120 | 80 | 1072 | 144 |

## Signal Information

|               |       |                 |     |                                                                                    |     |      |      |      |      |     |                                                                                    |
|---------------|-------|-----------------|-----|------------------------------------------------------------------------------------|-----|------|------|------|------|-----|------------------------------------------------------------------------------------|
| Cycle, s      | 130.0 | Reference Phase | 2   |  |     |      |      |      |      |     |                                                                                    |
| Offset, s     | 0     | Reference Point | End | Green                                                                              | 7.3 | 13.1 | 59.0 | 11.1 | 14.0 | 0.0 |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow                                                                             | 3.5 | 3.5  | 4.5  | 3.5  | 4.0  | 0.0 |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red                                                                                | 1.0 | 1.0  | 1.0  | 1.0  | 2.5  | 0.0 |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 20.5 | 15.6 | 20.5 | 30.6 | 82.1 | 11.8 | 63.3 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 13.1 | 13.4 | 13.1 | 8.1  | 24.5 |      | 7.7  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.6  | 0.0  | 0.6  | 0.4  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.94 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                   | EB     |       |       | WB     |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 160    | 36    | 144   | 168    | 56    | 80    | 316   | 1223  | 113   | 80    | 1072  | 144   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 11.1   | 2.2   | 11.4  | 11.1   | 3.5   | 6.1   | 22.5  | 15.6  | 2.9   | 5.7   | 18.6  | 7.0   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 11.1   | 2.2   | 11.4  | 11.1   | 3.5   | 6.1   | 22.5  | 15.6  | 2.9   | 5.7   | 18.6  | 7.0   |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.11  | 0.11  | 0.09   | 0.11  | 0.11  | 0.19  | 0.59  | 0.59  | 0.06  | 0.45  | 0.45  |
| Capacity ( $c$ ), veh/h                           | 155    | 205   | 174   | 155    | 205   | 174   | 363   | 3048  | 948   | 102   | 2301  | 716   |
| Volume-to-Capacity Ratio ( $X$ )                  | 1.036  | 0.176 | 0.830 | 1.087  | 0.273 | 0.461 | 0.870 | 0.401 | 0.119 | 0.785 | 0.466 | 0.201 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 2375.6 | 48.4  | 209.3 | 1344.9 | 76.2  | 111.6 | 379.8 | 259   | 70.4  | 122.9 | 309.1 | 126.1 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 95.0   | 1.9   | 8.4   | 53.8   | 3.0   | 4.5   | 15.2  | 10.4  | 2.8   | 4.9   | 12.4  | 5.0   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 13.20  | 0.00  | 0.00  | 5.27   | 0.30  | 0.44  | 0.79  | 0.00  | 0.00  | 0.29  | 0.00  | 0.32  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 52.7  | 56.8  | 59.5   | 53.3  | 54.4  | 51.0  | 14.7  | 11.9  | 60.6  | 25.3  | 22.0  |
| Incremental Delay ( $d_2$ ), s/veh                | 82.1   | 0.2   | 3.9   | 97.7   | 0.3   | 0.7   | 1.7   | 0.3   | 0.2   | 4.9   | 0.7   | 0.6   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1898.3 | 0.0   | 0.0   | 911.5  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 2039.8 | 52.9  | 60.7  | 1068.6 | 53.6  | 55.2  | 52.7  | 14.9  | 12.0  | 65.5  | 26.0  | 22.7  |
| Level of Service (LOS)                            | F      | D     | E     | F      | D     | E     | D     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                       | 991.2  | F     |       | 614.9  | F     |       | 22.0  | C     |       | 28.0  | C     |       |
| Intersection Delay, s/veh / LOS                   | 166.1  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.08 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.05 | A | 0.99 | A | 1.45 | A | 1.20 | A |

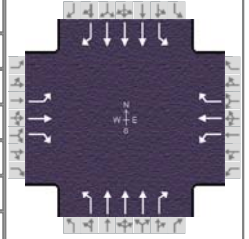
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 7> 6:00                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |    |     | WB  |    |    | NB  |     |    | SB |      |     |
|-----------------------|-----|----|-----|-----|----|----|-----|-----|----|----|------|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R  | L   | T   | R  | L  | T    | R   |
| Demand ( $v$ ), veh/h | 116 | 40 | 224 | 172 | 56 | 76 | 332 | 924 | 96 | 76 | 1096 | 144 |

## Signal Information

|               |       |                 |     |        |     |      |      |      |     |      |  |  |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|------|-----|------|--|--|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |      |     |      |  |  |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |      |      |      |     |      |  |  |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 7.0 | 18.6 | 47.3 | 10.1 | 1.0 | 20.5 |  |  |  |  |
|               |       |                 |     | Yellow | 3.5 | 3.5  | 4.5  | 3.5  | 0.0 | 4.0  |  |  |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0  | 1.0  | 1.0  | 0.0 | 2.5  |  |  |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 27.0 | 15.6 | 27.0 | 30.3 | 75.9 | 11.5 | 57.1 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 10.2 | 19.7 | 13.1 | 7.4  | 29.7 |      | 7.4  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.8  | 0.0  | 0.8  | 0.4  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 0.98 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.94 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                   | EB     |       |       | WB     |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 116    | 40    | 224   | 172    | 56    | 76    | 388   | 1080  | 112   | 76    | 1096  | 144   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 8.2    | 2.4   | 17.7  | 11.1   | 3.3   | 5.4   | 27.7  | 15.0  | 2.8   | 5.4   | 22.2  | 8.1   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 8.2    | 2.4   | 17.7  | 11.1   | 3.3   | 5.4   | 27.7  | 15.0  | 2.8   | 5.4   | 22.2  | 8.1   |
| Green Ratio ( $g/C$ )                             | 0.08   | 0.16  | 0.16  | 0.09   | 0.17  | 0.17  | 0.23  | 0.54  | 0.54  | 0.05  | 0.36  | 0.36  |
| Capacity ( $c$ ), veh/h                           | 155    | 299   | 254   | 155    | 299   | 254   | 359   | 2805  | 873   | 97    | 2056  | 640   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.751  | 0.134 | 0.883 | 1.113  | 0.187 | 0.300 | 1.081 | 0.385 | 0.129 | 0.782 | 0.533 | 0.225 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 2193.2 | 50.5  | 296   | 1444   | 71.3  | 98.7  | 552.8 | 206.4 | 63.9  | 117.1 | 342.8 | 139.1 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 87.7   | 2.0   | 11.8  | 57.8   | 2.9   | 3.9   | 22.1  | 8.3   | 2.6   | 4.7   | 13.7  | 5.6   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 12.18  | 0.00  | 0.00  | 5.66   | 0.28  | 0.39  | 1.15  | 0.00  | 0.00  | 0.27  | 0.00  | 0.35  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 47.1  | 53.6  | 59.5   | 47.5  | 48.4  | 51.2  | 16.6  | 14.5  | 60.8  | 30.0  | 25.9  |
| Incremental Delay ( $d_2$ ), s/veh                | 16.6   | 0.1   | 4.0   | 106.0  | 0.1   | 0.2   | 51.5  | 0.3   | 0.2   | 5.1   | 1.0   | 0.8   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1818.1 | 0.0   | 0.0   | 990.1  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 1894.1 | 47.2  | 57.6  | 1155.6 | 47.7  | 48.7  | 102.6 | 16.9  | 14.7  | 65.8  | 31.0  | 26.7  |
| Level of Service (LOS)                            | F      | D     | E     | F      | D     | D     | F     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                       | 617.1  | F     | F     | 674.8  | F     | F     | 37.8  | D     | D     | 32.5  | C     | C     |
| Intersection Delay, s/veh / LOS                   | 151.4  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.09 | B | 2.12 | B |
| Bicycle LOS Score / LOS    | 1.11 | A | 0.99 | A | 1.23 | A | 1.21 | A |

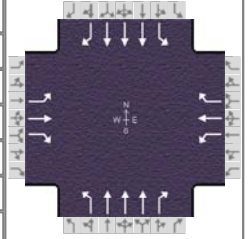
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |               |            |
|---------------------|-----------------------|---------------|------------|
| Agency              | Bohannon Huston       |               |            |
| Analyst             | CDV                   | Analysis Date | 11/21/2019 |
| Jurisdiction        |                       | Time Period   | PM         |
| Urban Street        |                       | Analysis Year | 2030       |
| Intersection        | UNSER @ TIERRA PIN... |               |            |
| Project Description | PM 2030 Build         |               |            |

## Intersection Information

|                 |         |
|-----------------|---------|
| Duration, h     | 0.250   |
| Area Type       | Other   |
| PHF             | 1.00    |
| Analysis Period | 8> 6:15 |



## Demand Information

| Approach Movement     | EB  |    |     | WB  |    |     | NB  |      |    | SB |     |     |
|-----------------------|-----|----|-----|-----|----|-----|-----|------|----|----|-----|-----|
|                       | L   | T  | R   | L   | T  | R   | L   | T    | R  | L  | T   | R   |
| Demand ( $v$ ), veh/h | 116 | 36 | 204 | 124 | 56 | 108 | 288 | 1152 | 84 | 88 | 828 | 168 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 130.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.3 | 25.4 | 15.5 | 25.6 | 40.1 | 76.6 | 12.5 | 49.0 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 10.2 | 18.1 | 10.8 | 9.9  | 21.6 |      | 8.2  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.8  | 0.0  | 0.8  | 0.3  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 0.98 | 1.00 | 0.99 | 1.00 | 1.00 |      | 0.96 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

| Approach Movement                                 | EB     |       |       | WB     |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                                   | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 116    | 36    | 204   | 124    | 56    | 108   | 274   | 1098  | 80    | 88    | 828   | 168   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 8.2    | 2.1   | 16.1  | 8.8    | 3.4   | 7.9   | 19.6  | 14.1  | 1.7   | 6.2   | 13.8  | 8.4   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 8.2    | 2.1   | 16.1  | 8.8    | 3.4   | 7.9   | 19.6  | 14.1  | 1.7   | 6.2   | 13.8  | 8.4   |
| Green Ratio ( $g/C$ )                             | 0.08   | 0.15  | 0.15  | 0.08   | 0.15  | 0.15  | 0.17  | 0.55  | 0.55  | 0.06  | 0.44  | 0.44  |
| Capacity ( $c$ ), veh/h                           | 155    | 277   | 234   | 155    | 279   | 237   | 331   | 2832  | 881   | 111   | 1731  | 538   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.751  | 0.130 | 0.871 | 0.803  | 0.201 | 0.457 | 0.829 | 0.388 | 0.091 | 0.793 | 0.478 | 0.312 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 1952.6 | 46.1  | 274.6 | 1329.2 | 72.4  | 145.7 | 426   | 244.2 | 46.6  | 134.7 | 284.3 | 186.6 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 78.1   | 1.8   | 11.0  | 53.2   | 2.9   | 5.8   | 17.0  | 9.8   | 1.9   | 5.4   | 11.4  | 7.5   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 10.85  | 0.00  | 0.00  | 5.21   | 0.28  | 0.57  | 0.89  | 0.00  | 0.00  | 0.31  | 0.00  | 0.47  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 48.4  | 54.3  | 59.5   | 48.7  | 50.7  | 58.7  | 16.3  | 12.2  | 60.2  | 34.7  | 32.7  |
| Incremental Delay ( $d_2$ ), s/veh                | 16.6   | 0.1   | 3.9   | 23.8   | 0.1   | 0.5   | 1.6   | 0.3   | 0.2   | 4.7   | 0.9   | 1.5   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1593.8 | 0.0   | 0.0   | 1003.2 | 0.0   | 0.0   | 20.3  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 1669.8 | 48.5  | 58.2  | 1086.4 | 48.9  | 51.2  | 80.5  | 16.6  | 12.3  | 64.9  | 35.6  | 34.2  |
| Level of Service (LOS)                            | F      | D     | E     | F      | D     | D     | F     | B     | B     | E     | D     | C     |
| Approach Delay, s/veh / LOS                       | 582.4  |       | F     | 496.5  |       | F     | 28.4  |       | C     | 37.8  |       | D     |
| Intersection Delay, s/veh / LOS                   | 136.0  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.09 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.08 | A | 0.96 | A | 1.33 | A | 1.08 | A |

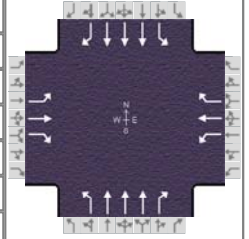
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 9> 6:30                    |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                       | EB  |    |     | WB  |    |    | NB  |     |     | SB |     |     |
|-----------------------|-----|----|-----|-----|----|----|-----|-----|-----|----|-----|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R  | L   | T   | R   | L  | T   | R   |
| Demand ( $v$ ), veh/h | 140 | 16 | 108 | 164 | 48 | 96 | 292 | 932 | 104 | 56 | 704 | 152 |

## Signal Information

|               |       |                 |     |
|---------------|-------|-----------------|-----|
| Cycle, s      | 130.0 | Reference Phase | 2   |
| Offset, s     | 0     | Reference Point | End |
| Uncoordinated | No    | Simult. Gap E/W | On  |
| Force Mode    | Fixed | Simult. Gap N/S | On  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 17.6 | 15.6 | 17.6 | 27.4 | 87.1 | 9.7  | 69.4 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 12.0 | 10.5 | 13.1 | 9.5  | 20.4 |      | 6.0  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.5  | 0.0  | 0.5  | 0.3  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.87 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                   | EB     |       |       | WB     |       |       | NB    |       |       | SB    |       |       |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 140    | 16    | 108   | 164    | 48    | 96    | 259   | 828   | 92    | 56    | 704   | 152   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 10.0   | 1.0   | 8.5   | 11.1   | 3.1   | 7.5   | 18.4  | 8.5   | 2.0   | 4.0   | 10.1  | 6.7   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 10.0   | 1.0   | 8.5   | 11.1   | 3.1   | 7.5   | 18.4  | 8.5   | 2.0   | 4.0   | 10.1  | 6.7   |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.09  | 0.09  | 0.09   | 0.09  | 0.09  | 0.16  | 0.63  | 0.63  | 0.04  | 0.51  | 0.51  |
| Capacity ( $c$ ), veh/h                           | 155    | 162   | 137   | 155    | 162   | 137   | 319   | 3248  | 1010  | 73    | 2543  | 791   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.906  | 0.099 | 0.787 | 1.061  | 0.296 | 0.699 | 0.812 | 0.255 | 0.091 | 0.768 | 0.277 | 0.192 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 1827.4 | 21.9  | 162.2 | 1333.6 | 67.1  | 141.5 | 353.1 | 175.5 | 53.6  | 87.7  | 189.4 | 120.5 |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 73.1   | 0.9   | 6.5   | 53.3   | 2.7   | 5.7   | 14.1  | 7.0   | 2.1   | 3.5   | 7.6   | 4.8   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 10.15  | 0.00  | 0.00  | 5.23   | 0.26  | 0.56  | 0.74  | 0.00  | 0.00  | 0.20  | 0.00  | 0.30  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 54.9  | 58.3  | 59.5   | 55.8  | 57.8  | 52.6  | 11.0  | 9.6   | 61.8  | 19.5  | 18.6  |
| Incremental Delay ( $d_2$ ), s/veh                | 45.0   | 0.1   | 3.7   | 89.7   | 0.4   | 2.4   | 1.7   | 0.2   | 0.2   | 6.2   | 0.3   | 0.5   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1439.4 | 0.0   | 0.0   | 914.3  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 1543.9 | 54.9  | 62.0  | 1063.5 | 56.2  | 60.2  | 54.2  | 11.2  | 9.8   | 68.0  | 19.7  | 19.1  |
| Level of Service (LOS)                            | F      | D     | E     | F      | E     | E     | D     | B     | A     | E     | B     | B     |
| Approach Delay, s/veh / LOS                       | 847.5  | F     |       | 593.8  | F     |       | 20.5  | C     |       | 22.6  | C     |       |
| Intersection Delay, s/veh / LOS                   | 169.5  |       |       |        |       |       | F     |       |       |       |       |       |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.08 | B | 2.10 | B |
| Bicycle LOS Score / LOS    | 0.92 | A | 1.00 | A | 1.22 | A | 0.99 | A |

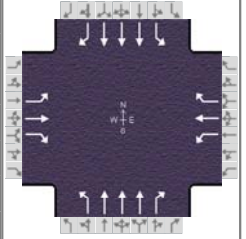
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 0.250                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 10> 6:45                   |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

|                     | EB  |    |     | WB  |    |    | NB  |     |     | SB |     |     |
|---------------------|-----|----|-----|-----|----|----|-----|-----|-----|----|-----|-----|
| Approach Movement   | L   | T  | R   | L   | T  | R  | L   | T   | R   | L  | T   | R   |
| Demand ( v ), veh/h | 100 | 76 | 144 | 172 | 64 | 68 | 328 | 772 | 128 | 44 | 564 | 104 |

## Signal Information

|               |       |                 |     |                                                                                    |     |      |      |     |     |      |                                                                                    |  |
|---------------|-------|-----------------|-----|------------------------------------------------------------------------------------|-----|------|------|-----|-----|------|------------------------------------------------------------------------------------|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |  |     |      |      |     |     |      |                                                                                    |  |
| Offset, s     | 0     | Reference Point | End |                                                                                    |     |      |      |     |     |      |                                                                                    |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green                                                                              | 4.1 | 15.4 | 59.8 | 8.9 | 2.2 | 14.1 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow                                                                             | 3.5 | 3.5  | 4.5  | 3.5 | 0.0 | 4.0  |  |  |
|               |       |                 |     | Red                                                                                | 1.0 | 1.0  | 1.0  | 1.0 | 0.0 | 2.5  |  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                          | 15.6 | 20.6 | 15.6 | 20.6 | 30.0 | 85.2 | 8.6  | 63.8 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( MAH ), s               | 2.6  | 3.2  | 2.6  | 3.2  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 9.1  | 13.4 | 13.1 | 7.0  | 23.7 |      | 5.1  |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.0  | 0.7  | 0.0  | 0.7  | 0.4  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.80 |      |
| Max Out Probability                        | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

| Approach Movement                                 | L      | T     | R     | L      | T     | R     | L     | T     | R     | L     | T     | R     |
|---------------------------------------------------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Assigned Movement                                 | 7      | 4     | 14    | 3      | 8     | 18    | 5     | 2     | 12    | 1     | 6     | 16    |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 100    | 76    | 144   | 172    | 64    | 68    | 306   | 719   | 119   | 44    | 564   | 104   |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1810   | 1900  | 1610  | 1810   | 1900  | 1610  | 1810  | 1725  | 1610  | 1810  | 1725  | 1610  |
| Queue Service Time ( $g_s$ ), s                   | 7.1    | 4.8   | 11.4  | 11.1   | 4.0   | 5.0   | 21.7  | 8.6   | 3.1   | 3.1   | 8.6   | 4.8   |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 7.1    | 4.8   | 11.4  | 11.1   | 4.0   | 5.0   | 21.7  | 8.6   | 3.1   | 3.1   | 8.6   | 4.8   |
| Green Ratio ( $g/C$ )                             | 0.07   | 0.11  | 0.11  | 0.09   | 0.13  | 0.13  | 0.18  | 0.61  | 0.61  | 0.03  | 0.46  | 0.46  |
| Capacity ( $c$ ), veh/h                           | 155    | 206   | 174   | 155    | 206   | 174   | 355   | 3174  | 987   | 57    | 2322  | 722   |
| Volume-to-Capacity Ratio ( $X$ )                  | 0.647  | 0.370 | 0.827 | 1.113  | 0.311 | 0.390 | 0.860 | 0.227 | 0.121 | 0.768 | 0.243 | 0.144 |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 1557.7 | 104.7 | 209.1 | 1422   | 87.5  | 94.1  | 389.3 | 149.6 | 70.4  | 70.2  | 161.7 | 87.6  |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 62.3   | 4.2   | 8.4   | 56.9   | 3.5   | 3.8   | 15.6  | 6.0   | 2.8   | 2.8   | 6.5   | 3.5   |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 8.65   | 0.00  | 0.00  | 5.58   | 0.34  | 0.37  | 0.81  | 0.00  | 0.00  | 0.16  | 0.00  | 0.22  |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 53.9  | 56.8  | 59.5   | 53.5  | 54.0  | 51.3  | 11.4  | 10.6  | 62.5  | 22.2  | 21.1  |
| Incremental Delay ( $d_2$ ), s/veh                | 7.2    | 0.4   | 3.8   | 106.0  | 0.3   | 0.5   | 2.1   | 0.1   | 0.2   | 7.7   | 0.2   | 0.4   |
| Initial Queue Delay ( $d_3$ ), s/veh              | 1238.4 | 0.0   | 0.0   | 969.6  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Control Delay ( $d$ ), s/veh                      | 1305.1 | 54.3  | 60.5  | 1135.1 | 53.8  | 54.5  | 53.4  | 11.6  | 10.8  | 70.2  | 22.4  | 21.5  |
| Level of Service (LOS)                            | F      | D     | E     | F      | D     | D     | D     | B     | B     | E     | C     | C     |
| Approach Delay, s/veh / LOS                       | 448.0  | F     |       | 665.8  | F     |       | 22.7  | C     |       | 25.3  | C     |       |
| Intersection Delay, s/veh / LOS                   | 157.1  |       |       |        |       |       | F     |       |       |       |       |       |

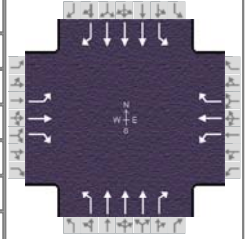
## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.08 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.02 | A | 0.99 | A | 1.16 | A | 0.88 | A |

## HCS7 Signalized Intersection Results Summary

### General Information

|                     |                                        |               |                    |
|---------------------|----------------------------------------|---------------|--------------------|
| Agency              | Bohannon Huston                        |               |                    |
| Analyst             | CDV                                    | Analysis Date | 11/21/2019         |
| Jurisdiction        |                                        | Time Period   | AM Peak            |
| Urban Street        |                                        | Analysis Year | 2030               |
| Intersection        | UNSER @ TIERRA PIN...                  | File Name     | Unser Intersection |
| Project Description | AM 2030 Build (Existing Signal Timing) |               |                    |



### Demand Information

|                       | EB  |    |     | WB |    |    | NB  |      |    | SB |      |     |
|-----------------------|-----|----|-----|----|----|----|-----|------|----|----|------|-----|
| Approach Movement     | L   | T  | R   | L  | T  | R  | L   | T    | R  | L  | T    | R   |
| Demand ( $v$ ), veh/h | 352 | 14 | 412 | 60 | 14 | 22 | 135 | 1121 | 33 | 78 | 1578 | 169 |

### Signal Information

|               |       |                 |     |        |     |     |      |     |     |      |  |  |
|---------------|-------|-----------------|-----|--------|-----|-----|------|-----|-----|------|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |     |      |     |     |      |  |  |
| Offset, s     | 0     | Reference Point | End |        |     |     |      |     |     |      |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 7.2 | 1.4 | 54.4 | 5.6 | 1.0 | 30.4 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.5 | 3.5 | 4.5  | 3.5 | 3.5 | 3.0  |  |  |
|               |       |                 |     | Red    | 1.0 | 1.0 | 1.0  | 1.0 | 1.0 | 3.5  |  |  |

### Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 42.3 | 10.1 | 36.9 | 17.6 | 65.8 | 11.7 | 59.9 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 13.1 | 35.1 | 6.3  | 3.4  | 13.1 |      | 7.6  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.8  | 0.0  | 1.1  | 0.1  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 0.89 | 1.00 | 1.00 |      | 0.94 |      |
| Max Out Probability               | 1.00 | 0.07 | 0.02 | 0.00 | 0.14 |      | 0.00 |      |

### Movement Group Results

|                                                   | EB     |       |     | WB    |       |     | NB    |       |     | SB    |       |     |
|---------------------------------------------------|--------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Approach Movement                                 | L      | T     | R   | L     | T     | R   | L     | T     | R   | L     | T     | R   |
| Assigned Movement                                 | 7      | 4     | 14  | 3     | 8     | 18  | 5     | 2     | 12  | 1     | 6     | 16  |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 352    | 14    | 412 | 60    | 14    | 22  | 149   | 1238  | 36  | 78    | 1578  | 169 |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1781   | 1870  |     | 1781  | 1870  |     | 1739  | 1658  |     | 1781  | 1698  |     |
| Queue Service Time ( $g_s$ ), s                   | 11.1   | 0.7   |     | 4.3   | 0.8   |     | 11.1  | 21.5  |     | 5.6   | 33.9  |     |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 11.1   | 0.7   |     | 4.3   | 0.8   |     | 11.1  | 21.5  |     | 5.6   | 33.9  |     |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.28  |     | 0.04  | 0.23  |     | 0.10  | 0.46  |     | 0.06  | 0.42  |     |
| Capacity ( $c$ ), veh/h                           | 152    | 516   |     | 77    | 437   |     | 175   | 2308  |     | 99    | 2133  |     |
| Volume-to-Capacity Ratio ( $X$ )                  | 2.314  | 0.027 |     | 0.779 | 0.032 |     | 0.851 | 0.537 |     | 0.790 | 0.740 |     |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 3863.6 | 14.9  |     | 95.6  | 15.9  |     | 245.4 | 314.8 |     | 122.4 | 514.2 |     |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 152.1  | 0.6   |     | 3.8   | 0.6   |     | 9.4   | 12.1  |     | 4.8   | 20.2  |     |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 21.46  | 0.00  |     | 0.37  | 0.06  |     | 0.51  | 0.00  |     | 0.28  | 0.00  |     |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 34.4  |     | 61.6  | 38.5  |     | 62.2  | 21.8  |     | 60.6  | 31.8  |     |
| Incremental Delay ( $d_2$ ), s/veh                | 2386.5 | 0.0   |     | 6.5   | 0.0   |     | 15.1  | 0.7   |     | 5.4   | 2.4   |     |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0    | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Control Delay ( $d$ ), s/veh                      | 2445.9 | 34.4  | 0.0 | 68.0  | 38.5  | 0.0 | 77.3  | 22.5  | 0.0 | 66.0  | 34.2  | 0.0 |
| Level of Service (LOS)                            | F      | C     | A   | E     | D     | A   | E     | C     | A   | E     | C     | A   |
| Approach Delay, s/veh / LOS                       | 1107.3 |       | F   | 48.1  |       | D   | 27.7  |       | C   | 32.4  |       | C   |
| Intersection Delay, s/veh / LOS                   | 234.0  |       |     |       |       |     | F     |       |     |       |       |     |

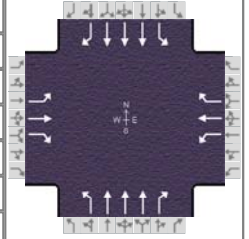
### Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.72 | C | 2.73 | C | 2.11 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.77 | B | 0.65 | A | 1.20 | A | 1.49 | A |

# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                                        |               |                    |
|---------------------|----------------------------------------|---------------|--------------------|
| Agency              | Bohannon Huston                        |               |                    |
| Analyst             | CDV                                    | Analysis Date | 11/21/2019         |
| Jurisdiction        |                                        | Time Period   | PM Peak            |
| Urban Street        |                                        | Analysis Year | 2030               |
| Intersection        | UNSER @ TIERRA PIN...                  | File Name     | Unser Intersection |
| Project Description | PM 2030 Build (Existing Signal Timing) |               |                    |



## Demand Information

|                       | EB  |    |     | WB  |    |     | NB  |      |     | SB |     |     |
|-----------------------|-----|----|-----|-----|----|-----|-----|------|-----|----|-----|-----|
| Approach Movement     | L   | T  | R   | L   | T  | R   | L   | T    | R   | L  | T   | R   |
| Demand ( $v$ ), veh/h | 234 | 35 | 133 | 175 | 71 | 122 | 335 | 1522 | 134 | 74 | 974 | 297 |

## Signal Information

|               |       |                 |     |        |     |      |      |      |      |     |  |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|------|------|-----|--|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |      |      |     |  |  |
| Offset, s     | 72    | Reference Point | End |        |     |      |      |      |      |     |  |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Green  | 6.9 | 14.0 | 59.2 | 11.1 | 13.4 | 0.0 |  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Yellow | 3.5 | 3.5  | 4.5  | 3.5  | 4.0  | 0.0 |  |  |
|               |       |                 |     | Red    | 1.0 | 1.0  | 1.0  | 1.0  | 2.5  | 0.0 |  |  |

## Timer Results

|                                   | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                    | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                       | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                 | 15.6 | 19.9 | 15.6 | 19.9 | 29.9 | 83.1 | 11.4 | 64.7 |
| Change Period, ( $Y+R_c$ ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( $MAH$ ), s    | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( $g_s$ ), s | 13.1 | 12.7 | 13.1 | 11.7 | 25.0 |      | 7.3  |      |
| Green Extension Time ( $g_e$ ), s | 0.0  | 0.7  | 0.0  | 0.7  | 0.4  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.93 |      |
| Max Out Probability               | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                   | EB     |       |     | WB    |       |     | NB    |       |     | SB    |       |     |
|---------------------------------------------------|--------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Approach Movement                                 | L      | T     | R   | L     | T     | R   | L     | T     | R   | L     | T     | R   |
| Assigned Movement                                 | 7      | 4     | 14  | 3     | 8     | 18  | 5     | 2     | 12  | 1     | 6     | 16  |
| Adjusted Flow Rate ( $v$ ), veh/h                 | 234    | 35    | 133 | 175   | 71    | 122 | 308   | 1401  | 123 | 74    | 974   | 297 |
| Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln   | 1781   | 1870  |     | 1781  | 1870  |     | 1739  | 1658  |     | 1781  | 1698  |     |
| Queue Service Time ( $g_s$ ), s                   | 11.1   | 2.2   |     | 11.1  | 4.6   |     | 23.0  | 16.1  |     | 5.3   | 16.7  |     |
| Cycle Queue Clearance Time ( $g_c$ ), s           | 11.1   | 2.2   |     | 11.1  | 4.6   |     | 23.0  | 16.1  |     | 5.3   | 16.7  |     |
| Green Ratio ( $g/C$ )                             | 0.09   | 0.10  |     | 0.09  | 0.10  |     | 0.20  | 0.60  |     | 0.05  | 0.46  |     |
| Capacity ( $c$ ), veh/h                           | 152    | 193   |     | 152   | 193   |     | 339   | 2969  |     | 94    | 2318  |     |
| Volume-to-Capacity Ratio ( $X$ )                  | 1.539  | 0.182 |     | 1.151 | 0.368 |     | 0.909 | 0.472 |     | 0.783 | 0.420 |     |
| Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)  | 1725.8 | 48.2  |     | 716.2 | 99.9  |     | 392   | 197.3 |     | 116.3 | 280.6 |     |
| Back of Queue ( $Q$ ), veh/ln ( 95 th percentile) | 67.9   | 1.9   |     | 28.2  | 3.9   |     | 15.1  | 7.6   |     | 4.6   | 11.0  |     |
| Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)  | 9.59   | 0.00  |     | 2.81  | 0.39  |     | 0.82  | 0.00  |     | 0.27  | 0.00  |     |
| Uniform Delay ( $d_1$ ), s/veh                    | 59.5   | 53.3  |     | 59.5  | 54.4  |     | 62.0  | 10.1  |     | 60.8  | 23.9  |     |
| Incremental Delay ( $d_2$ ), s/veh                | 1002.0 | 0.2   |     | 342.6 | 0.4   |     | 2.1   | 0.3   |     | 5.4   | 0.6   |     |
| Initial Queue Delay ( $d_3$ ), s/veh              | 0.0    | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Control Delay ( $d$ ), s/veh                      | 1061.5 | 53.5  | 0.0 | 402.1 | 54.8  | 0.0 | 64.2  | 10.4  | 0.0 | 66.2  | 24.4  | 0.0 |
| Level of Service (LOS)                            | F      | D     | A   | F     | D     | A   | E     | B     | A   | E     | C     | A   |
| Approach Delay, s/veh / LOS                       | 622.5  |       | F   | 201.8 |       | F   | 18.7  |       | B   | 21.3  |       | C   |
| Intersection Delay, s/veh / LOS                   | 98.2   |       |     |       |       |     | F     |       |     |       |       |     |

## Multimodal Results

|                            | EB   |   | WB   |   | NB   |   | SB   |   |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 2.74 | C | 2.74 | C | 2.08 | B | 2.11 | B |
| Bicycle LOS Score / LOS    | 1.15 | A | 1.09 | A | 1.58 | B | 1.23 | A |

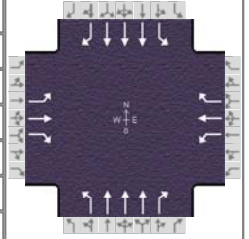
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | AM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 1.000                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 1> 7:00                    |
| File Name       | Unser Intersections_AM.xus |



## Demand Information

|                     | EB  |    |     | WB |    |    | NB  |      |    | SB |      |     |
|---------------------|-----|----|-----|----|----|----|-----|------|----|----|------|-----|
| Approach Movement   | L   | T  | R   | L  | T  | R  | L   | T    | R  | L  | T    | R   |
| Demand ( v ), veh/h | 352 | 14 | 412 | 60 | 14 | 22 | 135 | 1121 | 33 | 78 | 1578 | 169 |

## Signal Information

|               |       |                 |     |        |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|---------------|-------|-----------------|-----|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |  |  |  |  |  |  |  |  |  |
| Offset, s     | 0     | Reference Point | End | Green  | 7.2                                                                               | 1.4                                                                               | 54.4                                                                              | 5.6                                                                                 | 17.3                                                                                | 14.1                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow | 3.5                                                                               | 3.5                                                                               | 4.5                                                                               | 3.5                                                                                 | 3.5                                                                                 | 3.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0                                                                               | 1.0                                                                               | 1.0                                                                               | 1.0                                                                                 | 1.0                                                                                 | 3.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                          | 32.0 | 42.4 | 10.1 | 20.6 | 17.6 | 65.8 | 11.7 | 59.9 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( MAH ), s               | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 27.3 | 35.1 | 6.3  | 3.6  | 13.1 |      | 7.6  |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.2  | 0.8  | 0.0  | 1.0  | 0.1  | 0.0  | 0.0  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 0.89 | 1.00 | 1.00 |      | 0.94 |      |
| Max Out Probability                        | 0.20 | 0.03 | 0.00 | 0.00 | 0.15 |      | 0.00 |      |

## Movement Group Results

|                                                  | EB    |       |     | WB    |       |     | NB    |       |     | SB    |       |     |
|--------------------------------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Approach Movement                                | L     | T     | R   | L     | T     | R   | L     | T     | R   | L     | T     | R   |
| Assigned Movement                                | 7     | 4     | 14  | 3     | 8     | 18  | 5     | 2     | 12  | 1     | 6     | 16  |
| Adjusted Flow Rate ( v ), veh/h                  | 352   | 14    | 412 | 60    | 14    | 22  | 149   | 1238  | 36  | 78    | 1578  | 169 |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1781  | 1870  |     | 1781  | 1870  |     | 1739  | 1658  |     | 1781  | 1698  |     |
| Queue Service Time ( g <sub>s</sub> ), s         | 25.3  | 0.7   |     | 4.3   | 0.9   |     | 11.1  | 21.6  |     | 5.6   | 33.9  |     |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 25.3  | 0.7   |     | 4.3   | 0.9   |     | 11.1  | 21.6  |     | 5.6   | 33.9  |     |
| Green Ratio ( g/C )                              | 0.21  | 0.28  |     | 0.04  | 0.11  |     | 0.10  | 0.46  |     | 0.06  | 0.42  |     |
| Capacity ( c ), veh/h                            | 376   | 516   |     | 77    | 202   |     | 175   | 2306  |     | 99    | 2131  |     |
| Volume-to-Capacity Ratio ( X )                   | 0.935 | 0.027 |     | 0.776 | 0.069 |     | 0.851 | 0.537 |     | 0.790 | 0.740 |     |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 535.5 | 14.9  |     | 95.5  | 18.9  |     | 245.5 | 317.3 |     | 122.4 | 515.2 |     |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 21.1  | 0.6   |     | 3.8   | 0.7   |     | 9.4   | 12.2  |     | 4.8   | 20.3  |     |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 2.97  | 0.00  |     | 0.37  | 0.07  |     | 0.51  | 0.00  |     | 0.28  | 0.00  |     |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 50.4  | 34.3  |     | 61.6  | 52.1  |     | 62.2  | 22.1  |     | 60.6  | 31.9  |     |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 34.8  | 0.0   |     | 6.3   | 0.1   |     | 15.2  | 0.7   |     | 5.4   | 2.4   |     |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Control Delay ( d ), s/veh                       | 85.2  | 34.3  | 0.0 | 67.9  | 52.2  | 0.0 | 77.4  | 22.7  | 0.0 | 66.0  | 34.3  | 0.0 |
| Level of Service ( LOS )                         | F     | C     | A   | E     | D     | A   | E     | C     | A   | E     | C     | A   |
| Approach Delay, s/veh / LOS                      | 39.2  |       | D   | 50.0  |       | D   | 27.9  |       | C   | 32.4  |       | C   |
| Intersection Delay, s/veh / LOS                  | 32.6  |       |     |       |       |     | C     |       |     |       |       |     |

## Multimodal Results

|                            | EB   |  |   | WB   |  |   | NB   |  |   | SB   |  |   |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 2.72 |  | C | 2.74 |  | C | 2.11 |  | B | 2.11 |  | B |
| Bicycle LOS Score / LOS    | 1.77 |  | B | 0.65 |  | A | 1.20 |  | A | 1.49 |  | A |

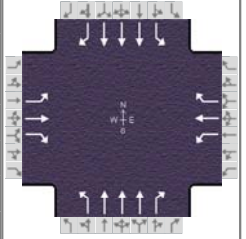
# HCS7 Signalized Intersection Results Summary

## General Information

|                     |                       |
|---------------------|-----------------------|
| Agency              | Bohannon Huston       |
| Analyst             | CDV                   |
| Jurisdiction        |                       |
| Urban Street        |                       |
| Intersection        | UNSER @ TIERRA PIN... |
| Project Description | PM 2030 Build         |

## Intersection Information

|                 |                            |
|-----------------|----------------------------|
| Duration, h     | 1.000                      |
| Area Type       | Other                      |
| PHF             | 1.00                       |
| Analysis Period | 1> 16:00                   |
| File Name       | Unser Intersections_PM.xus |



## Demand Information

| Approach Movement   | EB  |    |     | WB  |    |     | NB  |      |     | SB |     |     |
|---------------------|-----|----|-----|-----|----|-----|-----|------|-----|----|-----|-----|
|                     | L   | T  | R   | L   | T  | R   | L   | T    | R   | L  | T   | R   |
| Demand ( v ), veh/h | 234 | 35 | 133 | 175 | 71 | 122 | 335 | 1522 | 134 | 74 | 974 | 297 |

## Signal Information

|               |       |                 |     |        |     |      |      |      |     |      |  |
|---------------|-------|-----------------|-----|--------|-----|------|------|------|-----|------|--|
| Cycle, s      | 130.0 | Reference Phase | 2   |        |     |      |      |      |     |      |  |
| Offset, s     | 72    | Reference Point | End | Green  | 6.9 | 14.0 | 53.0 | 14.6 | 3.5 | 12.5 |  |
| Uncoordinated | No    | Simult. Gap E/W | On  | Yellow | 3.5 | 3.5  | 4.5  | 3.5  | 0.0 | 3.0  |  |
| Force Mode    | Fixed | Simult. Gap N/S | On  | Red    | 1.0 | 1.0  | 1.0  | 1.0  | 0.0 | 3.5  |  |

## Timer Results

|                                            | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|--------------------------------------------|------|------|------|------|------|------|------|------|
| Assigned Phase                             | 7    | 4    | 3    | 8    | 5    | 2    | 1    | 6    |
| Case Number                                | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  | 2.0  | 3.0  |
| Phase Duration, s                          | 22.6 | 22.5 | 19.1 | 19.0 | 29.9 | 77.0 | 11.4 | 58.5 |
| Change Period, ( Y+R <sub>c</sub> ), s     | 4.5  | 6.5  | 4.5  | 6.5  | 4.5  | 5.5  | 4.5  | 5.5  |
| Max Allow Headway ( MAH ), s               | 2.6  | 3.3  | 2.6  | 3.3  | 2.6  | 0.0  | 2.6  | 0.0  |
| Queue Clearance Time ( g <sub>s</sub> ), s | 18.9 | 12.4 | 14.6 | 11.8 | 25.0 |      | 7.3  |      |
| Green Extension Time ( g <sub>e</sub> ), s | 0.0  | 0.7  | 0.1  | 0.7  | 0.3  | 0.0  | 0.1  | 0.0  |
| Phase Call Probability                     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |      | 0.93 |      |
| Max Out Probability                        | 1.00 | 0.00 | 0.31 | 0.00 | 0.00 |      | 0.00 |      |

## Movement Group Results

|                                                  | EB    |       |     | WB    |       |     | NB    |       |     | SB    |       |     |
|--------------------------------------------------|-------|-------|-----|-------|-------|-----|-------|-------|-----|-------|-------|-----|
| Approach Movement                                | L     | T     | R   | L     | T     | R   | L     | T     | R   | L     | T     | R   |
| Assigned Movement                                | 7     | 4     | 14  | 3     | 8     | 18  | 5     | 2     | 12  | 1     | 6     | 16  |
| Adjusted Flow Rate ( v ), veh/h                  | 234   | 35    | 133 | 175   | 71    | 122 | 308   | 1401  | 123 | 74    | 974   | 297 |
| Adjusted Saturation Flow Rate ( s ), veh/h/ln    | 1781  | 1870  |     | 1781  | 1870  |     | 1739  | 1658  |     | 1781  | 1698  |     |
| Queue Service Time ( g <sub>s</sub> ), s         | 16.9  | 2.2   |     | 12.6  | 4.6   |     | 23.0  | 17.6  |     | 5.3   | 18.2  |     |
| Cycle Queue Clearance Time ( g <sub>c</sub> ), s | 16.9  | 2.2   |     | 12.6  | 4.6   |     | 23.0  | 17.6  |     | 5.3   | 18.2  |     |
| Green Ratio ( g/C )                              | 0.14  | 0.12  |     | 0.11  | 0.10  |     | 0.20  | 0.55  |     | 0.05  | 0.41  |     |
| Capacity ( c ), veh/h                            | 248   | 230   |     | 200   | 180   |     | 339   | 2735  |     | 94    | 2079  |     |
| Volume-to-Capacity Ratio ( X )                   | 0.944 | 0.152 |     | 0.874 | 0.394 |     | 0.910 | 0.512 |     | 0.784 | 0.469 |     |
| Back of Queue ( Q ), ft/ln ( 95 th percentile)   | 451.4 | 46.9  |     | 289.4 | 100.7 |     | 401   | 209.5 |     | 116.3 | 303.9 |     |
| Back of Queue ( Q ), veh/ln ( 95 th percentile)  | 17.8  | 1.8   |     | 11.4  | 4.0   |     | 15.4  | 8.1   |     | 4.6   | 12.0  |     |
| Queue Storage Ratio ( RQ ) ( 95 th percentile)   | 2.51  | 0.00  |     | 1.13  | 0.40  |     | 0.84  | 0.00  |     | 0.27  | 0.00  |     |
| Uniform Delay ( d <sub>1</sub> ), s/veh          | 55.4  | 50.9  |     | 56.8  | 55.2  |     | 62.9  | 11.8  |     | 60.8  | 28.2  |     |
| Incremental Delay ( d <sub>2</sub> ), s/veh      | 65.9  | 0.1   |     | 25.7  | 0.5   |     | 5.0   | 0.3   |     | 5.5   | 0.8   |     |
| Initial Queue Delay ( d <sub>3</sub> ), s/veh    | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     | 0.0   | 0.0   |     |
| Control Delay ( d ), s/veh                       | 121.3 | 51.0  | 0.0 | 82.5  | 55.7  | 0.0 | 67.9  | 12.2  | 0.0 | 66.3  | 28.9  | 0.0 |
| Level of Service ( LOS )                         | F     | D     | A   | F     | E     | A   | E     | B     | A   | E     | C     | A   |
| Approach Delay, s/veh / LOS                      | 75.1  | E     |     | 50.0  | D     |     | 20.7  | C     |     | 24.6  | C     |     |
| Intersection Delay, s/veh / LOS                  | 30.3  |       |     |       |       |     | C     |       |     |       |       |     |

## Multimodal Results

|                            | EB   |   |  | WB   |   |  | NB   |   |  | SB   |   |  |
|----------------------------|------|---|--|------|---|--|------|---|--|------|---|--|
| Pedestrian LOS Score / LOS | 2.74 | C |  | 2.74 | C |  | 2.09 | B |  | 2.11 | B |  |
| Bicycle LOS Score / LOS    | 1.15 | A |  | 1.09 | A |  | 1.58 | B |  | 1.23 | A |  |

| Intersection             |        |      |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 4.3    |      |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT  | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕    |      |        | ↕     |      |        | ↕     |       |        | ↕     |       |
| Traffic Vol, veh/h       | 0      | 538  | 6    | 97     | 220   | 0    | 12     | 0     | 187   | 0      | 0     | 0     |
| Future Vol, veh/h        | 0      | 538  | 6    | 97     | 220   | 0    | 12     | 0     | 187   | 0      | 0     | 0     |
| Conflicting Peds, #/hr   | 0      | 0    | 0    | 0      | 0     | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free | Free | Free   | Free  | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -    | None | -      | -     | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -    | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Veh in Median Storage, # | -      | 0    | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0    | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 95     | 95   | 95   | 95     | 95    | 95   | 95     | 95    | 95    | 95     | 95    | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 0      | 566  | 6    | 102    | 232   | 0    | 13     | 0     | 197   | 0      | 0     | 0     |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
| Major/Minor              | Major1 |      |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 232    | 0    | 0    | 572    | 0     | 0    | 1005   | 1005  | 569   | 1104   | 1008  | 232   |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 569    | 569   | -     | 436    | 436   | -     |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 436    | 436   | -     | 668    | 572   | -     |
| Critical Hdwy            | 4.12   | -    | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -    | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -    | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -    | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1336   | -    | -    | 1001   | -     | -    | 220    | 241   | 522   | 188    | 240   | 807   |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 507    | 506   | -     | 599    | 580   | -     |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 599    | 580   | -     | 448    | 504   | -     |
| Platoon blocked, %       |        | -    | -    |        | -     | -    |        |       |       |        |       |       |
| Mov Cap-1 Maneuver       | 1336   | -    | -    | 1001   | -     | -    | 200    | 213   | 522   | 107    | 212   | 807   |
| Mov Cap-2 Maneuver       | -      | -    | -    | -      | -     | -    | 200    | 213   | -     | 107    | 212   | -     |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 507    | 506   | -     | 599    | 512   | -     |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 529    | 512   | -     | 279    | 504   | -     |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
| Approach                 | EB     |      |      | WB     |       |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 0      |      |      | 2.8    |       |      | 18.4   |       |       | 0      |       |       |
| HCM LOS                  |        |      |      |        |       |      | C      |       |       | A      |       |       |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL  | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 |       |        |       |       |
| Capacity (veh/h)         | 476    | 1336 | -    | -      | 1001  | -    | -      | -     |       |        |       |       |
| HCM Lane V/C Ratio       | 0.44   | -    | -    | -      | 0.102 | -    | -      | -     |       |        |       |       |
| HCM Control Delay (s)    | 18.4   | 0    | -    | -      | 9     | 0    | -      | 0     |       |        |       |       |
| HCM Lane LOS             | C      | A    | -    | -      | A     | A    | -      | A     |       |        |       |       |
| HCM 95th %tile Q(veh)    | 2.2    | 0    | -    | -      | 0.3   | -    | -      | -     |       |        |       |       |

| Intersection             |        |      |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 3      |      |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT  | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕    |      |        | ↕     |      |        | ↕     |       |        | ↕     |       |
| Traffic Vol, veh/h       | 0      | 363  | 14   | 206    | 597   | 0    | 8      | 0     | 127   | 0      | 0     | 0     |
| Future Vol, veh/h        | 0      | 363  | 14   | 206    | 597   | 0    | 8      | 0     | 127   | 0      | 0     | 0     |
| Conflicting Peds, #/hr   | 0      | 0    | 0    | 0      | 0     | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free | Free | Free   | Free  | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -    | None | -      | -     | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -    | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Veh in Median Storage, # | -      | 0    | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0    | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 95     | 95   | 95   | 95     | 95    | 95   | 95     | 95    | 95    | 95     | 95    | 95    |
| Heavy Vehicles, %        | 2      | 2    | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 0      | 382  | 15   | 217    | 628   | 0    | 8      | 0     | 134   | 0      | 0     | 0     |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
| Major/Minor              | Major1 |      |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 628    | 0    | 0    | 397    | 0     | 0    | 1452   | 1452  | 390   | 1519   | 1459  | 628   |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 390    | 390   | -     | 1062   | 1062  | -     |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 1062   | 1062  | -     | 457    | 397   | -     |
| Critical Hdwy            | 4.12   | -    | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -    | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -    | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -    | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 954    | -    | -    | 1162   | -     | -    | 108    | 130   | 658   | 97     | 129   | 483   |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 634    | 608   | -     | 270    | 300   | -     |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 270    | 300   | -     | 583    | 603   | -     |
| Platoon blocked, %       |        | -    | -    |        | -     | -    |        |       |       |        |       |       |
| Mov Cap-1 Maneuver       | 954    | -    | -    | 1162   | -     | -    | 84     | 93    | 658   | 60     | 92    | 483   |
| Mov Cap-2 Maneuver       | -      | -    | -    | -      | -     | -    | 84     | 93    | -     | 60     | 92    | -     |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 634    | 608   | -     | 270    | 214   | -     |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 193    | 214   | -     | 465    | 603   | -     |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
| Approach                 | EB     |      | WB   |        |       |      | NB     |       | SB    |        |       |       |
| HCM Control Delay, s     | 0      |      | 2.3  |        |       |      | 16     |       | 0     |        |       |       |
| HCM LOS                  |        |      |      |        |       |      | C      |       | A     |        |       |       |
|                          |        |      |      |        |       |      |        |       |       |        |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL  | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 |       |        |       |       |
| Capacity (veh/h)         | 468    | 954  | -    | -      | 1162  | -    | -      | -     |       |        |       |       |
| HCM Lane V/C Ratio       | 0.304  | -    | -    | -      | 0.187 | -    | -      | -     |       |        |       |       |
| HCM Control Delay (s)    | 16     | 0    | -    | -      | 8.8   | 0    | -      | 0     |       |        |       |       |
| HCM Lane LOS             | C      | A    | -    | -      | A     | A    | -      | A     |       |        |       |       |
| HCM 95th %tile O(veh)    | 1.3    | 0    | -    | -      | 0.7   | -    | -      | -     |       |        |       |       |

| Intersection             |                                                                                   |       |        |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 9.4                                                                               |       |        |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR   | WBL    | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |       |        |  |  |  |
| Traffic Vol, veh/h       | 69                                                                                | 11    | 160    | 72                                                                                | 33                                                                                | 475                                                                               |
| Future Vol, veh/h        | 69                                                                                | 11    | 160    | 72                                                                                | 33                                                                                | 475                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0     | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free  | Free   | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None  | -      | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 0                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -     | -      | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -     | -      | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92    | 92     | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2     | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 75                                                                                | 12    | 174    | 78                                                                                | 36                                                                                | 516                                                                               |
| Major/Minor              | Major1                                                                            |       | Major2 |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0     | 87     | 0                                                                                 | 507                                                                               | 81                                                                                |
| Stage 1                  | -                                                                                 | -     | -      | -                                                                                 | 81                                                                                | -                                                                                 |
| Stage 2                  | -                                                                                 | -     | -      | -                                                                                 | 426                                                                               | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -     | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -     | -      | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -     | -      | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -     | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver       | -                                                                                 | -     | 1509   | -                                                                                 | 525                                                                               | 979                                                                               |
| Stage 1                  | -                                                                                 | -     | -      | -                                                                                 | 942                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -     | -      | -                                                                                 | 659                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | -                                                                                 | -     | 1509   | -                                                                                 | 461                                                                               | 979                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -     | -      | -                                                                                 | 461                                                                               | -                                                                                 |
| Stage 1                  | -                                                                                 | -     | -      | -                                                                                 | 942                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -     | -      | -                                                                                 | 579                                                                               | -                                                                                 |
| Approach                 | EB                                                                                |       | WB     |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |       | 5.3    |                                                                                   | 12.8                                                                              |                                                                                   |
| HCM LOS                  |                                                                                   |       |        |                                                                                   | B                                                                                 |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | NBLn2 | EBT    | EBR                                                                               | WBL                                                                               | WBT                                                                               |
| Capacity (veh/h)         | 461                                                                               | 979   | -      | -                                                                                 | 1509                                                                              | -                                                                                 |
| HCM Lane V/C Ratio       | 0.078                                                                             | 0.527 | -      | -                                                                                 | 0.115                                                                             | -                                                                                 |
| HCM Control Delay (s)    | 13.5                                                                              | 12.7  | -      | -                                                                                 | 7.7                                                                               | 0                                                                                 |
| HCM Lane LOS             | B                                                                                 | B     | -      | -                                                                                 | A                                                                                 | A                                                                                 |
| HCM 95th %tile Q(veh)    | 0.3                                                                               | 3.2   | -      | -                                                                                 | 0.4                                                                               | -                                                                                 |

| Intersection             |                                                                                   |       |        |                                                                                   |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 8.8                                                                               |       |        |                                                                                   |                                                                                   |                                                                                   |
| Movement                 | EBT                                                                               | EBR   | WBL    | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations      |  |       |        |  |  |  |
| Traffic Vol, veh/h       | 69                                                                                | 37    | 532    | 73                                                                                | 21                                                                                | 307                                                                               |
| Future Vol, veh/h        | 69                                                                                | 37    | 532    | 73                                                                                | 21                                                                                | 307                                                                               |
| Conflicting Peds, #/hr   | 0                                                                                 | 0     | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free                                                                              | Free  | Free   | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -                                                                                 | None  | -      | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length           | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 0                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -     | -      | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                 | 0                                                                                 | -     | -      | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92    | 92     | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2     | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 75                                                                                | 40    | 578    | 79                                                                                | 23                                                                                | 334                                                                               |
| Major/Minor              | Major1                                                                            |       | Major2 |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0     | 115    | 0                                                                                 | 1330                                                                              | 95                                                                                |
| Stage 1                  | -                                                                                 | -     | -      | -                                                                                 | 95                                                                                | -                                                                                 |
| Stage 2                  | -                                                                                 | -     | -      | -                                                                                 | 1235                                                                              | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -     | 4.12   | -                                                                                 | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -     | -      | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -     | -      | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -     | 2.218  | -                                                                                 | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver       | -                                                                                 | -     | 1474   | -                                                                                 | 171                                                                               | 962                                                                               |
| Stage 1                  | -                                                                                 | -     | -      | -                                                                                 | 929                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -     | -      | -                                                                                 | 274                                                                               | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | -                                                                                 | -     | 1474   | -                                                                                 | 101                                                                               | 962                                                                               |
| Mov Cap-2 Maneuver       | -                                                                                 | -     | -      | -                                                                                 | 101                                                                               | -                                                                                 |
| Stage 1                  | -                                                                                 | -     | -      | -                                                                                 | 929                                                                               | -                                                                                 |
| Stage 2                  | -                                                                                 | -     | -      | -                                                                                 | 162                                                                               | -                                                                                 |
| Approach                 | EB                                                                                |       | WB     |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |       | 7.9    |                                                                                   | 13.3                                                                              |                                                                                   |
| HCM LOS                  |                                                                                   |       |        |                                                                                   | B                                                                                 |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | NBLn2 | EBT    | EBR                                                                               | WBL                                                                               | WBT                                                                               |
| Capacity (veh/h)         | 101                                                                               | 962   | -      | -                                                                                 | 1474                                                                              | -                                                                                 |
| HCM Lane V/C Ratio       | 0.226                                                                             | 0.347 | -      | -                                                                                 | 0.392                                                                             | -                                                                                 |
| HCM Control Delay (s)    | 50.8                                                                              | 10.7  | -      | -                                                                                 | 9                                                                                 | 0                                                                                 |
| HCM Lane LOS             | F                                                                                 | B     | -      | -                                                                                 | A                                                                                 | A                                                                                 |
| HCM 95th %tile Q(veh)    | 0.8                                                                               | 1.6   | -      | -                                                                                 | 1.9                                                                               | -                                                                                 |

| Intersection             |        |       |        |            |       |        |       |      |        |       |      |      |
|--------------------------|--------|-------|--------|------------|-------|--------|-------|------|--------|-------|------|------|
| Int Delay, s/veh         | 3.2    |       |        |            |       |        |       |      |        |       |      |      |
| Movement                 | EBL    | EBT   | EBR    | WBL        | WBT   | WBR    | NBL   | NBT  | NBR    | SBL   | SBT  | SBR  |
| Lane Configurations      |        | ↕     |        |            | ↕     |        |       | ↕    |        |       | ↕    |      |
| Traffic Vol, veh/h       | 0      | 0     | 0      | 37         | 0     | 68     | 0     | 165  | 8      | 72    | 225  | 0    |
| Future Vol, veh/h        | 0      | 0     | 0      | 37         | 0     | 68     | 0     | 165  | 8      | 72    | 225  | 0    |
| Conflicting Peds, #/hr   | 0      | 0     | 0      | 0          | 0     | 0      | 0     | 0    | 0      | 0     | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop   | Stop       | Stop  | Stop   | Free  | Free | Free   | Free  | Free | Free |
| RT Channelized           | -      | -     | None   | -          | -     | None   | -     | -    | None   | -     | -    | None |
| Storage Length           | -      | -     | -      | -          | -     | -      | -     | -    | -      | -     | -    | -    |
| Veh in Median Storage, # | -      | 0     | -      | -          | 0     | -      | -     | 0    | -      | -     | 0    | -    |
| Grade, %                 | -      | 0     | -      | -          | 0     | -      | -     | 0    | -      | -     | 0    | -    |
| Peak Hour Factor         | 92     | 92    | 92     | 92         | 92    | 92     | 92    | 92   | 92     | 92    | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2     | 2      | 2          | 2     | 2      | 2     | 2    | 2      | 2     | 2    | 2    |
| Mvmt Flow                | 0      | 0     | 0      | 40         | 0     | 74     | 0     | 179  | 9      | 78    | 245  | 0    |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
| Major/Minor              | Minor2 |       | Minor1 |            |       | Major1 |       |      | Major2 |       |      |      |
| Conflicting Flow All     | 622    | 589   | 245    | 585        | 585   | 184    | 245   | 0    | 0      | 188   | 0    | 0    |
| Stage 1                  | 401    | 401   | -      | 184        | 184   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                  | 221    | 188   | -      | 401        | 401   | -      | -     | -    | -      | -     | -    | -    |
| Critical Hdwy            | 7.12   | 6.52  | 6.22   | 7.12       | 6.52  | 6.22   | 4.12  | -    | -      | 4.12  | -    | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52  | -      | 6.12       | 5.52  | -      | -     | -    | -      | -     | -    | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52  | -      | 6.12       | 5.52  | -      | -     | -    | -      | -     | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318  | 3.518      | 4.018 | 3.318  | 2.218 | -    | -      | 2.218 | -    | -    |
| Pot Cap-1 Maneuver       | 399    | 421   | 794    | 422        | 423   | 858    | 1321  | -    | -      | 1386  | -    | -    |
| Stage 1                  | 626    | 601   | -      | 818        | 747   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                  | 781    | 745   | -      | 626        | 601   | -      | -     | -    | -      | -     | -    | -    |
| Platoon blocked, %       |        |       |        |            |       |        |       | -    | -      |       | -    | -    |
| Mov Cap-1 Maneuver       | 346    | 394   | 794    | 401        | 396   | 858    | 1321  | -    | -      | 1386  | -    | -    |
| Mov Cap-2 Maneuver       | 346    | 394   | -      | 401        | 396   | -      | -     | -    | -      | -     | -    | -    |
| Stage 1                  | 626    | 562   | -      | 818        | 747   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                  | 714    | 745   | -      | 585        | 562   | -      | -     | -    | -      | -     | -    | -    |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
| Approach                 | EB     |       | WB     |            |       | NB     |       |      | SB     |       |      |      |
| HCM Control Delay, s     | 0      |       | 12.2   |            |       | 0      |       |      | 1.9    |       |      |      |
| HCM LOS                  | A      |       | B      |            |       |        |       |      |        |       |      |      |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR    | EBLn1WBLn1 | SBL   | SBT    | SBR   |      |        |       |      |      |
| Capacity (veh/h)         | 1321   | -     | -      | -          | 612   | 1386   | -     | -    |        |       |      |      |
| HCM Lane V/C Ratio       | -      | -     | -      | -          | 0.186 | 0.056  | -     | -    |        |       |      |      |
| HCM Control Delay (s)    | 0      | -     | -      | 0          | 12.2  | 7.8    | 0     | -    |        |       |      |      |
| HCM Lane LOS             | A      | -     | -      | A          | B     | A      | A     | -    |        |       |      |      |
| HCM 95th %tile O(veh)    | 0      | -     | -      | -          | 0.7   | 0.2    | -     | -    |        |       |      |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.6  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 0    | 0    | 0    | 13   | 0    | 81   | 0    | 257  | 38   | 68   | 173  | 0    |
| Future Vol, veh/h        | 0    | 0    | 0    | 13   | 0    | 81   | 0    | 257  | 38   | 68   | 173  | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 0    | 0    | 14   | 0    | 88   | 0    | 279  | 41   | 74   | 188  | 0    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 680    | 656   | 188    | 636   | 636    | 300   | 188    | 0 | 0 | 320   | 0 | 0 |
| Stage 1              | 336    | 336   | -      | 300   | 300    | -     | -      | - | - | -     | - | - |
| Stage 2              | 344    | 320   | -      | 336   | 336    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22   | 7.12  | 6.52   | 6.22  | 4.12   | - | - | 4.12  | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318  | 3.518 | 4.018  | 3.318 | 2.218  | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver   | 365    | 385   | 854    | 391   | 395    | 740   | 1386   | - | - | 1240  | - | - |
| Stage 1              | 678    | 642   | -      | 709   | 666    | -     | -      | - | - | -     | - | - |
| Stage 2              | 671    | 652   | -      | 678   | 642    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   |        |       |        |       |        |       |        | - | - |       | - | - |
| Mov Cap-1 Maneuver   | 305    | 359   | 854    | 371   | 369    | 740   | 1386   | - | - | 1240  | - | - |
| Mov Cap-2 Maneuver   | 305    | 359   | -      | 371   | 369    | -     | -      | - | - | -     | - | - |
| Stage 1              | 678    | 599   | -      | 709   | 666    | -     | -      | - | - | -     | - | - |
| Stage 2              | 591    | 652   | -      | 633   | 599    | -     | -      | - | - | -     | - | - |

| Approach             | EB | WB   | NB | SB  |
|----------------------|----|------|----|-----|
| HCM Control Delay, s | 0  | 11.6 | 0  | 2.3 |
| HCM LOS              | A  | B    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1WBLn1 | SBL  | SBT | SBR |
|-----------------------|------|-----|-----|------------|------|-----|-----|
| Capacity (veh/h)      | 1386 | -   | -   | - 651      | 1240 | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | - 0.157    | 0.06 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 0 11.6     | 8.1  | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | A B        | A A  | -   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | - 0.6      | 0.2  | -   | -   |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 5.1                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |  |  |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0                                                                                 | 0    | 179                                                                               | 0                                                                                 | 33   | 0                                                                                 | 140                                                                               | 61   | 11                                                                                  | 251                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0                                                                                 | 0    | 179                                                                               | 0                                                                                 | 33   | 0                                                                                 | 140                                                                               | 61   | 11                                                                                  | 251                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                   | 0                                                                                   | 0    |
| Sign Control             | Stop                                                                              | Stop                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop | Free                                                                              | Free                                                                              | Free | Free                                                                                | Free                                                                                | Free |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                   | -                                                                                   | None |
| Storage Length           | 250                                                                               | -                                                                                 | -    | 250                                                                               | -                                                                                 | -    | 400                                                                               | -                                                                                 | -    | 400                                                                                 | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                   | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                   | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                  | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 0                                                                                 | 0    | 195                                                                               | 0                                                                                 | 36   | 0                                                                                 | 152                                                                               | 66   | 12                                                                                  | 273                                                                                 | 0    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 500    | 515   | 273    | 482   | 482    | 185   | 273    | 0 | 0 | 218   | 0 | 0 |
| Stage 1              | 297    | 297   | -      | 185   | 185    | -     | -      | - | - | -     | - | - |
| Stage 2              | 203    | 218   | -      | 297   | 297    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22   | 7.12  | 6.52   | 6.22  | 4.12   | - | - | 4.12  | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318  | 3.518 | 4.018  | 3.318 | 2.218  | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver   | 481    | 464   | 766    | 495   | 484    | 857   | 1290   | - | - | 1352  | - | - |
| Stage 1              | 712    | 668   | -      | 817   | 747    | -     | -      | - | - | -     | - | - |
| Stage 2              | 799    | 723   | -      | 712   | 668    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   |        |       |        |       |        |       |        | - | - |       | - | - |
| Mov Cap-1 Maneuver   | 458    | 460   | 766    | 492   | 480    | 857   | 1290   | - | - | 1352  | - | - |
| Mov Cap-2 Maneuver   | 458    | 460   | -      | 492   | 480    | -     | -      | - | - | -     | - | - |
| Stage 1              | 712    | 662   | -      | 817   | 747    | -     | -      | - | - | -     | - | - |
| Stage 2              | 766    | 723   | -      | 706   | 662    | -     | -      | - | - | -     | - | - |

| Approach             | EB | WB   | NB | SB  |
|----------------------|----|------|----|-----|
| HCM Control Delay, s | 0  | 15.8 | 0  | 0.3 |
| HCM LOS              | A  | C    |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1290 | -   | -   | -     | -     | 492   | 857   | 1352  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | -     | -     | 0.395 | 0.042 | 0.009 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 0     | 0     | 17    | 9.4   | 7.7   | -   | -   |
| HCM Lane LOS          | A    | -   | -   | A     | A     | C     | A     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -     | -     | 1.9   | 0.1   | 0     | -   | -   |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.6                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |  |  |      |  |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0                                                                                 | 0    | 118                                                                               | 0                                                                                 | 21   | 0                                                                                 | 274                                                                               | 204  | 37                                                                                  | 149                                                                                 | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0                                                                                 | 0    | 118                                                                               | 0                                                                                 | 21   | 0                                                                                 | 274                                                                               | 204  | 37                                                                                  | 149                                                                                 | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                   | 0                                                                                   | 0    |
| Sign Control             | Stop                                                                              | Stop                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop | Free                                                                              | Free                                                                              | Free | Free                                                                                | Free                                                                                | Free |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                   | -                                                                                   | None |
| Storage Length           | 250                                                                               | -                                                                                 | -    | 250                                                                               | -                                                                                 | -    | 400                                                                               | -                                                                                 | -    | 400                                                                                 | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                   | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -                                                                                   | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92                                                                                  | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 0                                                                                 | 0    | 128                                                                               | 0                                                                                 | 23   | 0                                                                                 | 298                                                                               | 222  | 40                                                                                  | 162                                                                                 | 0    |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 663    | 762   | 162    | 651   | 651    | 409   | 162    | 0 | 0 | 520   | 0 | 0 |
| Stage 1              | 242    | 242   | -      | 409   | 409    | -     | -      | - | - | -     | - | - |
| Stage 2              | 421    | 520   | -      | 242   | 242    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22   | 7.12  | 6.52   | 6.22  | 4.12   | - | - | 4.12  | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318  | 3.518 | 4.018  | 3.318 | 2.218  | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver   | 375    | 335   | 883    | 382   | 388    | 642   | 1417   | - | - | 1046  | - | - |
| Stage 1              | 762    | 705   | -      | 619   | 596    | -     | -      | - | - | -     | - | - |
| Stage 2              | 610    | 532   | -      | 762   | 705    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   |        |       |        |       |        |       |        | - | - |       | - | - |
| Mov Cap-1 Maneuver   | 351    | 322   | 883    | 371   | 373    | 642   | 1417   | - | - | 1046  | - | - |
| Mov Cap-2 Maneuver   | 351    | 322   | -      | 371   | 373    | -     | -      | - | - | -     | - | - |
| Stage 1              | 762    | 678   | -      | 619   | 596    | -     | -      | - | - | -     | - | - |
| Stage 2              | 588    | 532   | -      | 733   | 678    | -     | -      | - | - | -     | - | - |

| Approach             | EB |  | WB   |  | NB |  | SB  |  |
|----------------------|----|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 0  |  | 18.4 |  | 0  |  | 1.7 |  |
| HCM LOS              | A  |  | C    |  |    |  |     |  |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1417 | -   | -   | -     | -     | 371   | 642   | 1046  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | -     | -     | 0.346 | 0.036 | 0.038 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 0     | 0     | 19.7  | 10.8  | 8.6   | -   | -   |
| HCM Lane LOS          | A    | -   | -   | A     | A     | C     | B     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -     | -     | 1.5   | 0.1   | 0.1   | -   | -   |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.7                                                                               |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |        |  |      |
| Traffic Vol, veh/h       | 17                                                                                | 254                                                                               | 747                                                                               | 0      | 0                                                                                 | 49   |
| Future Vol, veh/h        | 17                                                                                | 254                                                                               | 747                                                                               | 0      | 0                                                                                 | 49   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None   | -                                                                                 | None |
| Storage Length           | 0                                                                                 | -                                                                                 | -                                                                                 | -      | 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                | 18                                                                                | 276                                                                               | 812                                                                               | 0      | 0                                                                                 | 53   |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 812                                                                               | 0                                                                                 | -                                                                                 | 0      | 986                                                                               | 406  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 812                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 174                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -      | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -      | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 810                                                                               | -                                                                                 | -                                                                                 | -      | 245                                                                               | 594  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 397                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 839                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 810                                                                               | -                                                                                 | -                                                                                 | -      | 240                                                                               | 594  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 240                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 388                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 839                                                                               | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0.6                                                                               | 0                                                                                 |                                                                                   | 11.7   |                                                                                   |      |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 810                                                                               | -                                                                                 | -                                                                                 | -      | 594                                                                               |      |
| HCM Lane V/C Ratio       | 0.023                                                                             | -                                                                                 | -                                                                                 | -      | 0.09                                                                              |      |
| HCM Control Delay (s)    | 9.5                                                                               | -                                                                                 | -                                                                                 | -      | 11.7                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -      | B                                                                                 |      |
| HCM 95th %tile O(veh)    | 0.1                                                                               | -                                                                                 | -                                                                                 | -      | 0.3                                                                               |      |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.6                                                                               |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |        |  |      |
| Traffic Vol, veh/h       | 56                                                                                | 825                                                                               | 478                                                                               | 0      | 0                                                                                 | 32   |
| Future Vol, veh/h        | 56                                                                                | 825                                                                               | 478                                                                               | 0      | 0                                                                                 | 32   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None   | -                                                                                 | None |
| Storage Length           | 0                                                                                 | -                                                                                 | -                                                                                 | -      | 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                | 61                                                                                | 897                                                                               | 520                                                                               | 0      | 0                                                                                 | 35   |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 520                                                                               | 0                                                                                 | -                                                                                 | 0      | 1091                                                                              | 260  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 520                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 571                                                                               | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -                                                                                 | -      | 6.84                                                                              | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -                                                                                 | -      | 5.84                                                                              | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -                                                                                 | -      | 3.52                                                                              | 3.32 |
| Pot Cap-1 Maneuver       | 1042                                                                              | -                                                                                 | -                                                                                 | -      | 209                                                                               | 739  |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 561                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 529                                                                               | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 1042                                                                              | -                                                                                 | -                                                                                 | -      | 197                                                                               | 739  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -                                                                                 | -      | 197                                                                               | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 528                                                                               | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -                                                                                 | -      | 529                                                                               | -    |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Approach                 | EB                                                                                | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0.6                                                                               | 0                                                                                 |                                                                                   | 10.1   |                                                                                   |      |
| HCM LOS                  | B                                                                                 |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |                                                                                   |                                                                                   |                                                                                   |        |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 1042                                                                              | -                                                                                 | -                                                                                 | -      | 739                                                                               |      |
| HCM Lane V/C Ratio       | 0.058                                                                             | -                                                                                 | -                                                                                 | -      | 0.047                                                                             |      |
| HCM Control Delay (s)    | 8.7                                                                               | -                                                                                 | -                                                                                 | -      | 10.1                                                                              |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -                                                                                 | -      | B                                                                                 |      |
| HCM 95th %tile O(veh)    | 0.2                                                                               | -                                                                                 | -                                                                                 | -      | 0.1                                                                               |      |

| Intersection             |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.4                                                                               |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR   | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |       |  |  |      |  |  |      |        |  |      |
| Traffic Vol, veh/h       | 11                                                                                | 207                                                                               | 36    | 13                                                                                | 594                                                                               | 0    | 121                                                                               | 0                                                                                 | 43   | 0      | 0                                                                                   | 33   |
| Future Vol, veh/h        | 11                                                                                | 207                                                                               | 36    | 13                                                                                | 594                                                                               | 0    | 121                                                                               | 0                                                                                 | 43   | 0      | 0                                                                                   | 33   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0     | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free  | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None  | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 0                                                                                 | -                                                                                 | -     | 0                                                                                 | -                                                                                 | -    | 100                                                                               | -                                                                                 | -    | -      | -                                                                                   | -    |
| 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                | 12                                                                                | 225                                                                               | 39    | 14                                                                                | 646                                                                               | 0    | 132                                                                               | 0                                                                                 | 47   | 0      | 0                                                                                   | 36   |
| Major/Minor              | Major1                                                                            |                                                                                   |       | Major2                                                                            |                                                                                   |      | Minor1                                                                            |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 646                                                                               | 0                                                                                 | 0     | 264                                                                               | 0                                                                                 | 0    | 620                                                                               | 943                                                                               | 132  | 811    | 962                                                                                 | 323  |
| Stage 1                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 269                                                                               | 269                                                                               | -    | 674    | 674                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 351                                                                               | 674                                                                               | -    | 137    | 288                                                                                 | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -     | 4.14                                                                              | -                                                                                 | -    | 7.54                                                                              | 6.54                                                                              | 6.94 | 7.54   | 6.54                                                                                | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 6.54                                                                              | 5.54                                                                              | -    | 6.54   | 5.54                                                                                | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 6.54                                                                              | 5.54                                                                              | -    | 6.54   | 5.54                                                                                | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -     | 2.22                                                                              | -                                                                                 | -    | 3.52                                                                              | 4.02                                                                              | 3.32 | 3.52   | 4.02                                                                                | 3.32 |
| Pot Cap-1 Maneuver       | 935                                                                               | -                                                                                 | -     | 1297                                                                              | -                                                                                 | -    | 372                                                                               | 261                                                                               | 893  | 271    | 254                                                                                 | 673  |
| Stage 1                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 713                                                                               | 685                                                                               | -    | 410    | 452                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 639                                                                               | 452                                                                               | -    | 852    | 672                                                                                 | -    |
| Platoon blocked, %       | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | -      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 935                                                                               | -                                                                                 | -     | 1297                                                                              | -                                                                                 | -    | 346                                                                               | 255                                                                               | 893  | 252    | 248                                                                                 | 673  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 346                                                                               | 255                                                                               | -    | 252    | 248                                                                                 | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 704                                                                               | 676                                                                               | -    | 405    | 447                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 598                                                                               | 447                                                                               | -    | 797    | 663                                                                                 | -    |
| Approach                 | EB                                                                                |                                                                                   |       | WB                                                                                |                                                                                   |      | NB                                                                                |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.4                                                                               |                                                                                   |       | 0.2                                                                               |                                                                                   |      | 18.4                                                                              |                                                                                   |      | 10.7   |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      | C                                                                                 |                                                                                   |      | B      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             |                                                                                   | NBLn2 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | SBLn1  |                                                                                     |      |
| Capacity (veh/h)         | 346                                                                               |                                                                                   | 893   | 935                                                                               | -                                                                                 | -    | 1297                                                                              | -                                                                                 | -    | 673    |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.38                                                                              |                                                                                   | 0.052 | 0.013                                                                             | -                                                                                 | -    | 0.011                                                                             | -                                                                                 | -    | 0.053  |                                                                                     |      |
| HCM Control Delay (s)    | 21.6                                                                              |                                                                                   | 9.3   | 8.9                                                                               | -                                                                                 | -    | 7.8                                                                               | -                                                                                 | -    | 10.7   |                                                                                     |      |
| HCM Lane LOS             | C                                                                                 |                                                                                   | A     | A                                                                                 | -                                                                                 | -    | A                                                                                 | -                                                                                 | -    | B      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 1.7                                                                               |                                                                                   | 0.2   | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -    | 0.2    |                                                                                     |      |

| Intersection             |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.7                                                                               |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR   | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |       |  |  |      |  |  |      |        |  |      |
| Traffic Vol, veh/h       | 37                                                                                | 676                                                                               | 112   | 40                                                                                | 392                                                                               | 0    | 65                                                                                | 0                                                                                 | 23   | 0      | 0                                                                                   | 21   |
| Future Vol, veh/h        | 37                                                                                | 676                                                                               | 112   | 40                                                                                | 392                                                                               | 0    | 65                                                                                | 0                                                                                 | 23   | 0      | 0                                                                                   | 21   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0     | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free  | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None  | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -     | 200                                                                               | -                                                                                 | -    | 120                                                                               | -                                                                                 | -    | -      | -                                                                                   | -    |
| 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                | 40                                                                                | 735                                                                               | 122   | 43                                                                                | 426                                                                               | 0    | 71                                                                                | 0                                                                                 | 25   | 0      | 0                                                                                   | 23   |
| Major/Minor              | Major1                                                                            |                                                                                   |       | Major2                                                                            |                                                                                   |      | Minor1                                                                            |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 426                                                                               | 0                                                                                 | 0     | 857                                                                               | 0                                                                                 | 0    | 1175                                                                              | 1388                                                                              | 429  | 960    | 1449                                                                                | 213  |
| Stage 1                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 876                                                                               | 876                                                                               | -    | 512    | 512                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 299                                                                               | 512                                                                               | -    | 448    | 937                                                                                 | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -     | 4.14                                                                              | -                                                                                 | -    | 7.54                                                                              | 6.54                                                                              | 6.94 | 7.54   | 6.54                                                                                | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 6.54                                                                              | 5.54                                                                              | -    | 6.54   | 5.54                                                                                | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 6.54                                                                              | 5.54                                                                              | -    | 6.54   | 5.54                                                                                | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -     | 2.22                                                                              | -                                                                                 | -    | 3.52                                                                              | 4.02                                                                              | 3.32 | 3.52   | 4.02                                                                                | 3.32 |
| Pot Cap-1 Maneuver       | 1130                                                                              | -                                                                                 | -     | 779                                                                               | -                                                                                 | -    | 147                                                                               | 142                                                                               | 574  | 211    | 130                                                                                 | 792  |
| Stage 1                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 310                                                                               | 365                                                                               | -    | 513    | 535                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 685                                                                               | 535                                                                               | -    | 560    | 342                                                                                 | -    |
| Platoon blocked, %       | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | -      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 1130                                                                              | -                                                                                 | -     | 779                                                                               | -                                                                                 | -    | 133                                                                               | 130                                                                               | 574  | 188    | 119                                                                                 | 792  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 133                                                                               | 130                                                                               | -    | 188    | 119                                                                                 | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 299                                                                               | 352                                                                               | -    | 495    | 506                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -     | -                                                                                 | -                                                                                 | -    | 629                                                                               | 506                                                                               | -    | 517    | 330                                                                                 | -    |
| Approach                 | EB                                                                                |                                                                                   |       | WB                                                                                |                                                                                   |      | NB                                                                                |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.4                                                                               |                                                                                   |       | 0.9                                                                               |                                                                                   |      | 46.8                                                                              |                                                                                   |      | 9.7    |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      | E                                                                                 |                                                                                   |      | A      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             |                                                                                   | NBLn2 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | SBLn1  |                                                                                     |      |
| Capacity (veh/h)         | 133                                                                               |                                                                                   | 574   | 1130                                                                              | -                                                                                 | -    | 779                                                                               | -                                                                                 | -    | 792    |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.531                                                                             |                                                                                   | 0.044 | 0.036                                                                             | -                                                                                 | -    | 0.056                                                                             | -                                                                                 | -    | 0.029  |                                                                                     |      |
| HCM Control Delay (s)    | 59.2                                                                              |                                                                                   | 11.6  | 8.3                                                                               | -                                                                                 | -    | 9.9                                                                               | -                                                                                 | -    | 9.7    |                                                                                     |      |
| HCM Lane LOS             | F                                                                                 |                                                                                   | B     | A                                                                                 | -                                                                                 | -    | A                                                                                 | -                                                                                 | -    | A      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 2.6                                                                               |                                                                                   | 0.1   | 0.1                                                                               | -                                                                                 | -    | 0.2                                                                               | -                                                                                 | -    | 0.1    |                                                                                     |      |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.3                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR  | SBL    | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |        |  |      |        |  |      |
| Traffic Vol, veh/h       | 37                                                                                | 676                                                                               | 112  | 40                                                                                | 392                                                                               | 0    | 65     | 0                                                                                 | 23   | 0      | 0                                                                                   | 21   |
| Future Vol, veh/h        | 37                                                                                | 676                                                                               | 112  | 40                                                                                | 392                                                                               | 0    | 65     | 0                                                                                 | 23   | 0      | 0                                                                                   | 21   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop | Stop   | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                   | None |
| Storage Length           | 250                                                                               | -                                                                                 | -    | 250                                                                               | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 1                                                                                 | -    | -      | 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                | 40                                                                                | 735                                                                               | 122  | 43                                                                                | 426                                                                               | 0    | 71     | 0                                                                                 | 25   | 0      | 0                                                                                   | 23   |
|                          |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Major/Minor              | Major1                                                                            |                                                                                   |      | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |      | Minor2 |                                                                                     |      |
| Conflicting Flow All     | 426                                                                               | 0                                                                                 | 0    | 857                                                                               | 0                                                                                 | 0    | 1175   | 1388                                                                              | 429  | 960    | 1449                                                                                | 213  |
| Stage 1                  | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 876    | 876                                                                               | -    | 512    | 512                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 299    | 512                                                                               | -    | 448    | 937                                                                                 | -    |
| Critical Hdwy            | 4.14                                                                              | -                                                                                 | -    | 4.14                                                                              | -                                                                                 | -    | 7.54   | 6.54                                                                              | 6.94 | 7.54   | 6.54                                                                                | 6.94 |
| Critical Hdwy Stg 1      | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.54   | 5.54                                                                              | -    | 6.54   | 5.54                                                                                | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.54   | 5.54                                                                              | -    | 6.54   | 5.54                                                                                | -    |
| Follow-up Hdwy           | 2.22                                                                              | -                                                                                 | -    | 2.22                                                                              | -                                                                                 | -    | 3.52   | 4.02                                                                              | 3.32 | 3.52   | 4.02                                                                                | 3.32 |
| Pot Cap-1 Maneuver       | 1130                                                                              | -                                                                                 | -    | 779                                                                               | -                                                                                 | -    | 147    | 142                                                                               | 574  | 211    | 130                                                                                 | 792  |
| Stage 1                  | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 310    | 365                                                                               | -    | 513    | 535                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 685    | 535                                                                               | -    | 560    | 342                                                                                 | -    |
| Platoon blocked, %       |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 | -    |        |                                                                                   |      |        |                                                                                     |      |
| Mov Cap-1 Maneuver       | 1130                                                                              | -                                                                                 | -    | 779                                                                               | -                                                                                 | -    | 133    | 130                                                                               | 574  | 188    | 119                                                                                 | 792  |
| Mov Cap-2 Maneuver       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 232    | 241                                                                               | -    | 188    | 119                                                                                 | -    |
| Stage 1                  | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 299    | 352                                                                               | -    | 495    | 506                                                                                 | -    |
| Stage 2                  | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 629    | 506                                                                               | -    | 517    | 330                                                                                 | -    |
|                          |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Approach                 | EB                                                                                |                                                                                   |      | WB                                                                                |                                                                                   |      | NB     |                                                                                   |      | SB     |                                                                                     |      |
| HCM Control Delay, s     | 0.4                                                                               |                                                                                   |      | 0.9                                                                               |                                                                                   |      | 24.9   |                                                                                   |      | 9.7    |                                                                                     |      |
| HCM LOS                  |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      | C      |                                                                                   |      | A      |                                                                                     |      |
|                          |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |      |        |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBL                                                                               | EBT  | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |      |        |                                                                                     |      |
| Capacity (veh/h)         | 275                                                                               | 1130                                                                              | -    | -                                                                                 | 779                                                                               | -    | -      | 792                                                                               |      |        |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.348                                                                             | 0.036                                                                             | -    | -                                                                                 | 0.056                                                                             | -    | -      | 0.029                                                                             |      |        |                                                                                     |      |
| HCM Control Delay (s)    | 24.9                                                                              | 8.3                                                                               | -    | -                                                                                 | 9.9                                                                               | -    | -      | 9.7                                                                               |      |        |                                                                                     |      |
| HCM Lane LOS             | C                                                                                 | A                                                                                 | -    | -                                                                                 | A                                                                                 | -    | -      | A                                                                                 |      |        |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 1.5                                                                               | 0.1                                                                               | -    | -                                                                                 | 0.2                                                                               | -    | -      | 0.1                                                                               |      |        |                                                                                     |      |

| Intersection              |    |
|---------------------------|----|
| Intersection Delay, s/veh | 14 |
| Intersection LOS          | B  |

| Movement            | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                                 | NBT                                                                                 | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |  |  |      |  |  |      |  |  |      |  |  |      |
| Traffic Vol, veh/h  | 156                                                                               | 83                                                                                | 11   | 0                                                                                 | 244                                                                               | 0    | 33                                                                                  | 6                                                                                   | 0    | 0                                                                                   | 17                                                                                  | 330  |
| Future Vol, veh/h   | 156                                                                               | 83                                                                                | 11   | 0                                                                                 | 244                                                                               | 0    | 33                                                                                  | 6                                                                                   | 0    | 0                                                                                   | 17                                                                                  | 330  |
| 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 |
| Heavy Vehicles, %   | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                   | 2                                                                                   | 2    | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow           | 170                                                                               | 90                                                                                | 12   | 0                                                                                 | 265                                                                               | 0    | 36                                                                                  | 7                                                                                   | 0    | 0                                                                                   | 18                                                                                  | 359  |
| Number of Lanes     | 1                                                                                 | 1                                                                                 | 0    | 1                                                                                 | 1                                                                                 | 0    | 1                                                                                   | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 2    | 2    | 2    | 2    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 2    | 2    | 2    | 2    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 2    | 2    | 2    | 2    |
| HCM Control Delay          | 11.7 | 14.2 | 10.5 | 15.9 |
| HCM LOS                    | B    | B    | B    | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 100%  | 0%    | 0%    | 0%    | 0%    | 0%    |
| Vol Thru, %            | 0%    | 100%  | 0%    | 88%   | 100%  | 100%  | 100%  | 5%    |
| Vol Right, %           | 0%    | 0%    | 0%    | 12%   | 0%    | 0%    | 0%    | 95%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 33    | 6     | 156   | 94    | 0     | 244   | 0     | 347   |
| LT Vol                 | 33    | 0     | 156   | 0     | 0     | 0     | 0     | 0     |
| Through Vol            | 0     | 6     | 0     | 83    | 0     | 244   | 0     | 17    |
| RT Vol                 | 0     | 0     | 0     | 11    | 0     | 0     | 0     | 330   |
| Lane Flow Rate         | 36    | 7     | 170   | 102   | 0     | 265   | 0     | 377   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| Degree of Util (X)     | 0.073 | 0.012 | 0.317 | 0.174 | 0     | 0.46  | 0     | 0.583 |
| Departure Headway (Hd) | 7.321 | 6.811 | 6.736 | 6.145 | 6.241 | 6.241 | 6.236 | 5.56  |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 487   | 523   | 532   | 582   | 0     | 576   | 0     | 649   |
| Service Time           | 5.101 | 4.589 | 4.492 | 3.901 | 3.995 | 3.995 | 3.987 | 3.311 |
| HCM Lane V/C Ratio     | 0.074 | 0.013 | 0.32  | 0.175 | 0     | 0.46  | 0     | 0.581 |
| HCM Control Delay      | 10.7  | 9.7   | 12.6  | 10.2  | 9     | 14.2  | 9     | 15.9  |
| HCM Lane LOS           | B     | A     | B     | B     | N     | B     | N     | C     |
| HCM 95th-tile Q        | 0.2   | 0     | 1.4   | 0.6   | 0     | 2.4   | 0     | 3.8   |

| Intersection              |      |
|---------------------------|------|
| Intersection Delay, s/veh | 18.4 |
| Intersection LOS          | C    |

| Movement            | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                                 | NBT                                                                                 | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
|---------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |  |  |      |  |  |      |  |  |      |  |  |      |
| Traffic Vol, veh/h  | 384                                                                               | 279                                                                               | 37   | 0                                                                                 | 161                                                                               | 0    | 21                                                                                  | 20                                                                                  | 0    | 0                                                                                   | 11                                                                                  | 250  |
| Future Vol, veh/h   | 384                                                                               | 279                                                                               | 37   | 0                                                                                 | 161                                                                               | 0    | 21                                                                                  | 20                                                                                  | 0    | 0                                                                                   | 11                                                                                  | 250  |
| 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 |
| Heavy Vehicles, %   | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                   | 2                                                                                   | 2    | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow           | 417                                                                               | 303                                                                               | 40   | 0                                                                                 | 175                                                                               | 0    | 23                                                                                  | 22                                                                                  | 0    | 0                                                                                   | 12                                                                                  | 272  |
| Number of Lanes     | 1                                                                                 | 1                                                                                 | 0    | 1                                                                                 | 1                                                                                 | 0    | 1                                                                                   | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    |

| Approach                   | EB   | WB   | NB | SB   |
|----------------------------|------|------|----|------|
| Opposing Approach          | WB   | EB   | SB | NB   |
| Opposing Lanes             | 2    | 2    | 2  | 2    |
| Conflicting Approach Left  | SB   | NB   | EB | WB   |
| Conflicting Lanes Left     | 2    | 2    | 2  | 2    |
| Conflicting Approach Right | NB   | SB   | WB | EB   |
| Conflicting Lanes Right    | 2    | 2    | 2  | 2    |
| HCM Control Delay          | 21.3 | 12.8 | 11 | 15.4 |
| HCM LOS                    | C    | B    | B  | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 100%  | 0%    | 0%    | 0%    | 0%    | 0%    |
| Vol Thru, %            | 0%    | 100%  | 0%    | 88%   | 100%  | 100%  | 100%  | 4%    |
| Vol Right, %           | 0%    | 0%    | 0%    | 12%   | 0%    | 0%    | 0%    | 96%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 21    | 20    | 384   | 316   | 0     | 161   | 0     | 261   |
| LT Vol                 | 21    | 0     | 384   | 0     | 0     | 0     | 0     | 0     |
| Through Vol            | 0     | 20    | 0     | 279   | 0     | 161   | 0     | 11    |
| RT Vol                 | 0     | 0     | 0     | 37    | 0     | 0     | 0     | 250   |
| Lane Flow Rate         | 23    | 22    | 417   | 343   | 0     | 175   | 0     | 284   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |
| Degree of Util (X)     | 0.051 | 0.045 | 0.747 | 0.558 | 0     | 0.328 | 0     | 0.5   |
| Departure Headway (Hd) | 8.045 | 7.532 | 6.441 | 5.852 | 6.741 | 6.741 | 7.034 | 6.35  |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 443   | 473   | 559   | 615   | 0     | 530   | 0     | 565   |
| Service Time           | 5.83  | 5.316 | 4.192 | 3.602 | 4.513 | 4.513 | 4.797 | 4.112 |
| HCM Lane V/C Ratio     | 0.052 | 0.047 | 0.746 | 0.558 | 0     | 0.33  | 0     | 0.503 |
| HCM Control Delay      | 11.3  | 10.7  | 25.9  | 15.8  | 9.5   | 12.8  | 9.8   | 15.4  |
| HCM Lane LOS           | B     | B     | D     | C     | N     | B     | N     | C     |
| HCM 95th-tile Q        | 0.2   | 0.1   | 6.5   | 3.4   | 0     | 1.4   | 0     | 2.8   |

| Intersection             |        |       |      |        |      |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 1.8    |       |      |        |      |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT  | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕    |      |        | ↕     |       |        | ↕     |       |
| Traffic Vol, veh/h       | 14     | 67    | 3    | 0      | 195  | 0    | 8      | 0     | 0     | 0      | 0     | 41    |
| Future Vol, veh/h        | 14     | 67    | 3    | 0      | 195  | 0    | 8      | 0     | 0     | 0      | 0     | 41    |
| Conflicting Peds, #/hr   | 0      | 0     | 0    | 0      | 0    | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free  | Free | Free   | Free | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -     | None | -      | -    | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -     | -    | -      | -    | -    | -      | -     | -     | -      | -     | -     |
| 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                | 15     | 73    | 3    | 0      | 212  | 0    | 9      | 0     | 0     | 0      | 0     | 45    |
| Major/Minor              | Major1 |       |      | Major2 |      |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 212    | 0     | 0    | 76     | 0    | 0    | 340    | 317   | 75    | 317    | 318   | 212   |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 105    | 105   | -     | 212    | 212   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 235    | 212   | -     | 105    | 106   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -    | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -    | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -    | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -    | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1358   | -     | -    | 1523   | -    | -    | 614    | 599   | 986   | 636    | 598   | 828   |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 901    | 808   | -     | 790    | 727   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 768    | 727   | -     | 901    | 807   | -     |
| Platoon blocked, %       | -      | -     | -    | -      | -    | -    | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver       | 1358   | -     | -    | 1523   | -    | -    | 576    | 592   | 986   | 630    | 591   | 828   |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -    | -    | 576    | 592   | -     | 630    | 591   | -     |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 890    | 798   | -     | 781    | 727   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 727    | 727   | -     | 890    | 797   | -     |
| Approach                 | EB     |       |      | WB     |      |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 1.3    |       |      | 0      |      |      | 11.3   |       |       | 9.6    |       |       |
| HCM LOS                  |        |       |      |        |      |      | B      |       |       | A      |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL  | WBT  | WBR    | SBLn1 |       |        |       |       |
| Capacity (veh/h)         | 576    | 1358  | -    | -      | 1523 | -    | -      | 828   |       |        |       |       |
| HCM Lane V/C Ratio       | 0.015  | 0.011 | -    | -      | -    | -    | -      | 0.054 |       |        |       |       |
| HCM Control Delay (s)    | 11.3   | 7.7   | 0    | -      | 0    | -    | -      | 9.6   |       |        |       |       |
| HCM Lane LOS             | B      | A     | A    | -      | A    | -    | -      | A     |       |        |       |       |
| HCM 95th %tile Q(veh)    | 0      | 0     | -    | -      | 0    | -    | -      | 0.2   |       |        |       |       |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.5  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 46   | 223  | 9    | 0    | 129  | 0    | 5    | 0    | 0    | 0    | 0    | 27   |
| Future Vol, veh/h        | 46   | 223  | 9    | 0    | 129  | 0    | 5    | 0    | 0    | 0    | 0    | 27   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| 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                | 50   | 242  | 10   | 0    | 140  | 0    | 5    | 0    | 0    | 0    | 0    | 29   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 140    | 0 | 0 | 252    | 0 | 0 | 502    | 487   | 247   | 487    | 492   | 140   |
| Stage 1              | -      | - | - | -      | - | - | 347    | 347   | -     | 140    | 140   | -     |
| Stage 2              | -      | - | - | -      | - | - | 155    | 140   | -     | 347    | 352   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1443   | - | - | 1313   | - | - | 480    | 481   | 792   | 491    | 478   | 908   |
| Stage 1              | -      | - | - | -      | - | - | 669    | 635   | -     | 863    | 781   | -     |
| Stage 2              | -      | - | - | -      | - | - | 847    | 781   | -     | 669    | 632   | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |       |       |
| Mov Cap-1 Maneuver   | 1443   | - | - | 1313   | - | - | 450    | 462   | 792   | 476    | 459   | 908   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 450    | 462   | -     | 476    | 459   | -     |
| Stage 1              | -      | - | - | -      | - | - | 642    | 610   | -     | 828    | 781   | -     |
| Stage 2              | -      | - | - | -      | - | - | 820    | 781   | -     | 642    | 607   | -     |

| Approach             | EB  | WB | NB   | SB  |
|----------------------|-----|----|------|-----|
| HCM Control Delay, s | 1.3 | 0  | 13.1 | 9.1 |
| HCM LOS              |     |    | B    | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL  | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|------|-----|-----|-------|
| Capacity (veh/h)      | 450   | 1443  | -   | -   | 1313 | -   | -   | 908   |
| HCM Lane V/C Ratio    | 0.012 | 0.035 | -   | -   | -    | -   | -   | 0.032 |
| HCM Control Delay (s) | 13.1  | 7.6   | 0   | -   | 0    | -   | -   | 9.1   |
| HCM Lane LOS          | B     | A     | A   | -   | A    | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | 0.1   | -   | -   | 0    | -   | -   | 0.1   |

| Intersection             |        |       |      |        |      |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 8.2    |       |      |        |      |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT  | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕    |      |        | ↕     |       |        | ↕     |       |
| Traffic Vol, veh/h       | 39     | 0     | 28   | 0      | 0    | 0    | 81     | 0     | 0     | 0      | 0     | 114   |
| Future Vol, veh/h        | 39     | 0     | 28   | 0      | 0    | 0    | 81     | 0     | 0     | 0      | 0     | 114   |
| Conflicting Peds, #/hr   | 0      | 0     | 0    | 0      | 0    | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free  | Free | Free   | Free | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -     | None | -      | -    | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -     | -    | -      | -    | -    | -      | -     | -     | -      | -     | -     |
| 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                | 42     | 0     | 30   | 0      | 0    | 0    | 88     | 0     | 0     | 0      | 0     | 124   |
|                          |        |       |      |        |      |      |        |       |       |        |       |       |
| Major/Minor              | Major1 |       |      | Major2 |      |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 1      | 0     | 0    | 30     | 0    | 0    | 162    | 100   | 15    | 100    | 115   | 1     |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 99     | 99    | -     | 1      | 1     | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 63     | 1     | -     | 99     | 114   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -    | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -    | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -    | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -    | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1622   | -     | -    | 1583   | -    | -    | 803    | 790   | 1065  | 881    | 775   | 1084  |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 907    | 813   | -     | 1022   | 895   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 948    | 895   | -     | 907    | 801   | -     |
| Platoon blocked, %       |        | -     | -    |        | -    | -    |        |       |       |        |       |       |
| Mov Cap-1 Maneuver       | 1622   | -     | -    | 1583   | -    | -    | 697    | 769   | 1065  | 863    | 755   | 1084  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -    | -    | 697    | 769   | -     | 863    | 755   | -     |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 883    | 792   | -     | 995    | 895   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 840    | 895   | -     | 883    | 780   | -     |
|                          |        |       |      |        |      |      |        |       |       |        |       |       |
| Approach                 | EB     |       |      | WB     |      |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 4.2    |       |      | 0      |      |      | 10.9   |       |       | 8.7    |       |       |
| HCM LOS                  |        |       |      |        |      |      | B      |       |       | A      |       |       |
|                          |        |       |      |        |      |      |        |       |       |        |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL  | WBT  | WBR    | SBLn1 |       |        |       |       |
| Capacity (veh/h)         | 697    | 1622  | -    | -      | 1583 | -    | -      | 1084  |       |        |       |       |
| HCM Lane V/C Ratio       | 0.126  | 0.026 | -    | -      | -    | -    | -      | 0.114 |       |        |       |       |
| HCM Control Delay (s)    | 10.9   | 7.3   | 0    | -      | 0    | -    | -      | 8.7   |       |        |       |       |
| HCM Lane LOS             | B      | A     | A    | -      | A    | -    | -      | A     |       |        |       |       |
| HCM 95th %tile O(veh)    | 0.4    | 0.1   | -    | -      | 0    | -    | -      | 0.4   |       |        |       |       |

| Intersection             |        |       |      |        |      |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 6.6    |       |      |        |      |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT  | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕    |      |        | ↕     |       |        | ↕     |       |
| Traffic Vol, veh/h       | 130    | 0     | 93   | 0      | 0    | 0    | 54     | 0     | 0     | 0      | 0     | 75    |
| Future Vol, veh/h        | 130    | 0     | 93   | 0      | 0    | 0    | 54     | 0     | 0     | 0      | 0     | 75    |
| Conflicting Peds, #/hr   | 0      | 0     | 0    | 0      | 0    | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free  | Free | Free   | Free | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -     | None | -      | -    | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -     | -    | -      | -    | -    | -      | -     | -     | -      | -     | -     |
| 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                | 141    | 0     | 101  | 0      | 0    | 0    | 59     | 0     | 0     | 0      | 0     | 82    |
|                          |        |       |      |        |      |      |        |       |       |        |       |       |
| Major/Minor              | Major1 |       |      | Major2 |      |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 1      | 0     | 0    | 101    | 0    | 0    | 375    | 334   | 51    | 334    | 384   | 1     |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 333    | 333   | -     | 1      | 1     | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 42     | 1     | -     | 333    | 383   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -    | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -    | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -    | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -    | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1622   | -     | -    | 1491   | -    | -    | 582    | 586   | 1017  | 620    | 550   | 1084  |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 681    | 644   | -     | 1022   | 895   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 972    | 895   | -     | 681    | 612   | -     |
| Platoon blocked, %       |        | -     | -    |        | -    | -    |        |       |       |        |       |       |
| Mov Cap-1 Maneuver       | 1622   | -     | -    | 1491   | -    | -    | 500    | 532   | 1017  | 576    | 499   | 1084  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -    | -    | 500    | 532   | -     | 576    | 499   | -     |
| Stage 1                  | -      | -     | -    | -      | -    | -    | 618    | 584   | -     | 927    | 895   | -     |
| Stage 2                  | -      | -     | -    | -      | -    | -    | 899    | 895   | -     | 618    | 555   | -     |
|                          |        |       |      |        |      |      |        |       |       |        |       |       |
| Approach                 | EB     |       |      | WB     |      |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 4.3    |       |      | 0      |      |      | 13.2   |       |       | 8.6    |       |       |
| HCM LOS                  |        |       |      |        |      |      | B      |       |       | A      |       |       |
|                          |        |       |      |        |      |      |        |       |       |        |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL  | WBT  | WBR    | SBLn1 |       |        |       |       |
| Capacity (veh/h)         | 500    | 1622  | -    | -      | 1491 | -    | -      | 1084  |       |        |       |       |
| HCM Lane V/C Ratio       | 0.117  | 0.087 | -    | -      | -    | -    | -      | 0.075 |       |        |       |       |
| HCM Control Delay (s)    | 13.2   | 7.4   | 0    | -      | 0    | -    | -      | 8.6   |       |        |       |       |
| HCM Lane LOS             | B      | A     | A    | -      | A    | -    | -      | A     |       |        |       |       |
| HCM 95th %tile Q(veh)    | 0.4    | 0.3   | -    | -      | 0    | -    | -      | 0.2   |       |        |       |       |

| 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       | 29     | 0     | 1      | 1          | 0      | 6     | 0      | 165  | 1    | 3    | 86   | 15   |
| Future Vol, veh/h        | 29     | 0     | 1      | 1          | 0      | 6     | 0      | 165  | 1    | 3    | 86   | 15   |
| Conflicting Peds, #/hr   | 0      | 0     | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -     | None   | -          | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -     | -      | -          | -      | -     | -      | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -      | 0     | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0     | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 95     | 95    | 95     | 95         | 95     | 95    | 95     | 95   | 95   | 95   | 95   | 95   |
| Heavy Vehicles, %        | 28     | 28    | 28     | 2          | 2      | 2     | 15     | 15   | 15   | 10   | 10   | 10   |
| Mvmt Flow                | 31     | 0     | 1      | 1          | 0      | 6     | 0      | 174  | 1    | 3    | 91   | 16   |
|                          |        |       |        |            |        |       |        |      |      |      |      |      |
| Major/Minor              | Minor2 |       | Minor1 |            | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 283    | 280   | 99     | 281        | 288    | 175   | 107    | 0    | 0    | 175  | 0    | 0    |
| Stage 1                  | 105    | 105   | -      | 175        | 175    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 178    | 175   | -      | 106        | 113    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 7.38   | 6.78  | 6.48   | 7.12       | 6.52   | 6.22  | 4.25   | -    | -    | 4.2  | -    | -    |
| Critical Hdwy Stg 1      | 6.38   | 5.78  | -      | 6.12       | 5.52   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.38   | 5.78  | -      | 6.12       | 5.52   | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.752  | 4.252 | 3.552  | 3.518      | 4.018  | 3.318 | 2.335  | -    | -    | 2.29 | -    | -    |
| Pot Cap-1 Maneuver       | 620    | 587   | 890    | 671        | 622    | 868   | 1406   | -    | -    | 1354 | -    | -    |
| Stage 1                  | 841    | 761   | -      | 827        | 754    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 767    | 708   | -      | 900        | 802    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |       |        |            |        |       |        | -    | -    |      | -    | -    |
| Mov Cap-1 Maneuver       | 614    | 586   | 890    | 669        | 621    | 868   | 1406   | -    | -    | 1354 | -    | -    |
| Mov Cap-2 Maneuver       | 614    | 586   | -      | 669        | 621    | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 841    | 759   | -      | 827        | 754    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 761    | 708   | -      | 897        | 800    | -     | -      | -    | -    | -    | -    | -    |
|                          |        |       |        |            |        |       |        |      |      |      |      |      |
|                          |        |       |        |            |        |       |        |      |      |      |      |      |
| Approach                 | EB     |       | WB     |            | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 11.1   |       | 9.4    |            | 0      |       | 0.2    |      |      |      |      |      |
| HCM LOS                  | B      |       | A      |            |        |       |        |      |      |      |      |      |
|                          |        |       |        |            |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |      |      |      |
| Capacity (veh/h)         | 1406   | -     | -      | 620        | 833    | 1354  | -      | -    |      |      |      |      |
| HCM Lane V/C Ratio       | -      | -     | -      | 0.051      | 0.009  | 0.002 | -      | -    |      |      |      |      |
| HCM Control Delay (s)    | 0      | -     | -      | 11.1       | 9.4    | 7.7   | 0      | -    |      |      |      |      |
| HCM Lane LOS             | A      | -     | -      | B          | A      | A     | A      | -    |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -      | 0.2        | 0      | 0     | -      | -    |      |      |      |      |

| 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       | 20     | 0     | 0      | 1          | 0     | 4      | 1     | 113  | 1      | 6     | 182  | 31   |
| Future Vol, veh/h        | 20     | 0     | 0      | 1          | 0     | 4      | 1     | 113  | 1      | 6     | 182  | 31   |
| Conflicting Peds, #/hr   | 0      | 0     | 0      | 0          | 0     | 0      | 0     | 0    | 0      | 0     | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop   | Stop       | Stop  | Stop   | Free  | Free | Free   | Free  | Free | Free |
| RT Channelized           | -      | -     | None   | -          | -     | None   | -     | -    | None   | -     | -    | None |
| Storage Length           | -      | -     | -      | -          | -     | -      | -     | -    | -      | -     | -    | -    |
| Veh in Median Storage, # | -      | 0     | -      | -          | 0     | -      | -     | 0    | -      | -     | 0    | -    |
| Grade, %                 | -      | 0     | -      | -          | 0     | -      | -     | 0    | -      | -     | 0    | -    |
| Peak Hour Factor         | 93     | 93    | 93     | 93         | 93    | 93     | 93    | 93   | 93     | 93    | 93   | 93   |
| Heavy Vehicles, %        | 19     | 19    | 19     | 2          | 2     | 2      | 14    | 14   | 14     | 9     | 9    | 9    |
| Mvmt Flow                | 22     | 0     | 0      | 1          | 0     | 4      | 1     | 122  | 1      | 6     | 196  | 33   |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
| Major/Minor              | Minor2 |       | Minor1 |            |       | Major1 |       |      | Major2 |       |      |      |
| Conflicting Flow All     | 352    | 350   | 213    | 350        | 366   | 123    | 229   | 0    | 0      | 123   | 0    | 0    |
| Stage 1                  | 225    | 225   | -      | 125        | 125   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                  | 127    | 125   | -      | 225        | 241   | -      | -     | -    | -      | -     | -    | -    |
| Critical Hdwy            | 7.29   | 6.69  | 6.39   | 7.12       | 6.52  | 6.22   | 4.24  | -    | -      | 4.19  | -    | -    |
| Critical Hdwy Stg 1      | 6.29   | 5.69  | -      | 6.12       | 5.52  | -      | -     | -    | -      | -     | -    | -    |
| Critical Hdwy Stg 2      | 6.29   | 5.69  | -      | 6.12       | 5.52  | -      | -     | -    | -      | -     | -    | -    |
| Follow-up Hdwy           | 3.671  | 4.171 | 3.471  | 3.518      | 4.018 | 3.318  | 2.326 | -    | -      | 2.281 | -    | -    |
| Pot Cap-1 Maneuver       | 572    | 548   | 786    | 605        | 562   | 928    | 1271  | -    | -      | 1422  | -    | -    |
| Stage 1                  | 741    | 687   | -      | 879        | 792   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                  | 837    | 761   | -      | 778        | 706   | -      | -     | -    | -      | -     | -    | -    |
| Platoon blocked, %       |        |       |        |            |       |        |       | -    | -      |       | -    | -    |
| Mov Cap-1 Maneuver       | 567    | 545   | 786    | 602        | 559   | 928    | 1271  | -    | -      | 1422  | -    | -    |
| Mov Cap-2 Maneuver       | 567    | 545   | -      | 602        | 559   | -      | -     | -    | -      | -     | -    | -    |
| Stage 1                  | 740    | 684   | -      | 878        | 791   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                  | 832    | 760   | -      | 774        | 702   | -      | -     | -    | -      | -     | -    | -    |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
| Approach                 | EB     |       | WB     |            |       | NB     |       |      | SB     |       |      |      |
| HCM Control Delay, s     | 11.6   |       | 9.3    |            |       | 0.1    |       |      | 0.2    |       |      |      |
| HCM LOS                  | B      |       | A      |            |       |        |       |      |        |       |      |      |
|                          |        |       |        |            |       |        |       |      |        |       |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR    | EBLn1WBLn1 | SBL   | SBT    | SBR   |      |        |       |      |      |
| Capacity (veh/h)         | 1271   | -     | -      | 567        | 837   | 1422   | -     | -    |        |       |      |      |
| HCM Lane V/C Ratio       | 0.001  | -     | -      | 0.038      | 0.006 | 0.005  | -     | -    |        |       |      |      |
| HCM Control Delay (s)    | 7.8    | 0     | -      | 11.6       | 9.3   | 7.5    | 0     | -    |        |       |      |      |
| HCM Lane LOS             | A      | A     | -      | B          | A     | A      | A     | -    |        |       |      |      |
| HCM 95th %tile O(veh)    | 0      | -     | -      | 0.1        | 0     | 0      | -     | -    |        |       |      |      |

| 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       | 31     | 0                                                                                 | 1      | 0          | 0                                                                                 | 0     | 0      | 135                                                                               | 0    | 0     | 72                                                                                  | 16   |
| Future Vol, veh/h        | 31     | 0                                                                                 | 1      | 0          | 0                                                                                 | 0     | 0      | 135                                                                               | 0    | 0     | 72                                                                                  | 16   |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0     | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free  | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -     | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -     | 0                                                                                   | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -     | 0                                                                                   | -    |
| Peak Hour Factor         | 97     | 97                                                                                | 97     | 97         | 97                                                                                | 97    | 97     | 97                                                                                | 97   | 97    | 97                                                                                  | 97   |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2      | 24         | 24                                                                                | 24    | 14     | 14                                                                                | 14   | 11    | 11                                                                                  | 11   |
| Mvmt Flow                | 32     | 0                                                                                 | 1      | 0          | 0                                                                                 | 0     | 0      | 139                                                                               | 0    | 0     | 74                                                                                  | 16   |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |       |                                                                                     |      |
| Conflicting Flow All     | 221    | 221                                                                               | 82     | 222        | 229                                                                               | 139   | 90     | 0                                                                                 | 0    | 139   | 0                                                                                   | 0    |
| Stage 1                  | 82     | 82                                                                                | -      | 139        | 139                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                  | 139    | 139                                                                               | -      | 83         | 90                                                                                | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Critical Hdwy            | 7.12   | 6.52                                                                              | 6.22   | 7.34       | 6.74                                                                              | 6.44  | 4.24   | -                                                                                 | -    | 4.21  | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.12   | 5.52                                                                              | -      | 6.34       | 5.74                                                                              | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.12   | 5.52                                                                              | -      | 6.34       | 5.74                                                                              | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Follow-up Hdwy           | 3.518  | 4.018                                                                             | 3.318  | 3.716      | 4.216                                                                             | 3.516 | 2.326  | -                                                                                 | -    | 2.299 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 735    | 678                                                                               | 978    | 689        | 634                                                                               | 854   | 1433   | -                                                                                 | -    | 1391  | -                                                                                   | -    |
| Stage 1                  | 926    | 827                                                                               | -      | 814        | 741                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                  | 864    | 782                                                                               | -      | 873        | 779                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |       | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 735    | 678                                                                               | 978    | 688        | 634                                                                               | 854   | 1433   | -                                                                                 | -    | 1391  | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 735    | 678                                                                               | -      | 688        | 634                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 1                  | 926    | 827                                                                               | -      | 814        | 741                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                  | 864    | 782                                                                               | -      | 872        | 779                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |       |                                                                                     |      |
| HCM Control Delay, s     | 10.1   |                                                                                   | 0      |            | 0                                                                                 |       | 0      |                                                                                   |      |       |                                                                                     |      |
| HCM LOS                  | B      |                                                                                   | A      |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |       |                                                                                     |      |
| Capacity (veh/h)         | 1433   | -                                                                                 | -      | 741        | -                                                                                 | 1391  | -      | -                                                                                 |      |       |                                                                                     |      |
| HCM Lane V/C Ratio       | -      | -                                                                                 | -      | 0.045      | -                                                                                 | -     | -      | -                                                                                 |      |       |                                                                                     |      |
| HCM Control Delay (s)    | 0      | -                                                                                 | -      | 10.1       | 0                                                                                 | 0     | -      | -                                                                                 |      |       |                                                                                     |      |
| HCM Lane LOS             | A      | -                                                                                 | -      | B          | A                                                                                 | A     | -      | -                                                                                 |      |       |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0.1        | -                                                                                 | 0     | -      | -                                                                                 |      |       |                                                                                     |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 21   | 0    | 0    | 0    | 0    | 0    | 1    | 93   | 0    | 0    | 149  | 34   |
| Future Vol, veh/h        | 21   | 0    | 0    | 0    | 0    | 0    | 1    | 93   | 0    | 0    | 149  | 34   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 90   | 90   | 90   | 90   | 90   | 90   | 90   | 90   | 90   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 10   | 10   | 10   | 7    | 7    | 7    | 7    | 7    | 7    |
| Mvmt Flow                | 23   | 0    | 0    | 0    | 0    | 0    | 1    | 103  | 0    | 0    | 166  | 38   |

| Major/Minor          | Minor2 |       | Minor1 |      | Major1 |      | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|------|--------|------|--------|---|---|-------|---|---|
| Conflicting Flow All | 290    | 290   | 185    | 290  | 309    | 103  | 204    | 0 | 0 | 103   | 0 | 0 |
| Stage 1              | 185    | 185   | -      | 105  | 105    | -    | -      | - | - | -     | - | - |
| Stage 2              | 105    | 105   | -      | 185  | 204    | -    | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22   | 7.2  | 6.6    | 6.3  | 4.17   | - | - | 4.17  | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -      | 6.2  | 5.6    | -    | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -      | 6.2  | 5.6    | -    | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318  | 3.59 | 4.09   | 3.39 | 2.263  | - | - | 2.263 | - | - |
| Pot Cap-1 Maneuver   | 662    | 620   | 857    | 647  | 592    | 930  | 1338   | - | - | 1458  | - | - |
| Stage 1              | 817    | 747   | -      | 881  | 793    | -    | -      | - | - | -     | - | - |
| Stage 2              | 901    | 808   | -      | 799  | 718    | -    | -      | - | - | -     | - | - |
| Platoon blocked, %   |        |       |        |      |        |      |        | - | - | -     | - | - |
| Mov Cap-1 Maneuver   | 661    | 619   | 857    | 646  | 591    | 930  | 1338   | - | - | 1458  | - | - |
| Mov Cap-2 Maneuver   | 661    | 619   | -      | 646  | 591    | -    | -      | - | - | -     | - | - |
| Stage 1              | 816    | 747   | -      | 880  | 792    | -    | -      | - | - | -     | - | - |
| Stage 2              | 900    | 807   | -      | 799  | 718    | -    | -      | - | - | -     | - | - |

| Approach             | EB   |  | WB |  | NB  |  | SB |  |
|----------------------|------|--|----|--|-----|--|----|--|
| HCM Control Delay, s | 10.6 |  | 0  |  | 0.1 |  | 0  |  |
| HCM LOS              | B    |  | A  |  |     |  |    |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL | SBT  | SBR |
|-----------------------|-------|-----|-----|------------|-----|------|-----|
| Capacity (veh/h)      | 1338  | -   | -   | 661        | -   | 1458 | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.035      | -   | -    | -   |
| HCM Control Delay (s) | 7.7   | 0   | -   | 10.6       | 0   | 0    | -   |
| HCM Lane LOS          | A     | A   | -   | B          | A   | A    | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1        | -   | 0    | -   |

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|-------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.9    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL   | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |       |  |      |
| Traffic Vol, veh/h       | 31     | 0                                                                                 | 2      | 0          | 0                                                                                 | 4     | 1      | 104                                                                               | 0    | 4     | 56                                                                                  | 16   |
| Future Vol, veh/h        | 31     | 0                                                                                 | 2      | 0          | 0                                                                                 | 4     | 1      | 104                                                                               | 0    | 4     | 56                                                                                  | 16   |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0     | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free  | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -     | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -     | 0                                                                                   | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -     | 0                                                                                   | -    |
| Peak Hour Factor         | 90     | 90                                                                                | 90     | 90         | 90                                                                                | 90    | 90     | 90                                                                                | 90   | 90    | 90                                                                                  | 90   |
| Heavy Vehicles, %        | 5      | 5                                                                                 | 5      | 2          | 2                                                                                 | 2     | 9      | 9                                                                                 | 9    | 9     | 9                                                                                   | 9    |
| Mvmt Flow                | 34     | 0                                                                                 | 2      | 0          | 0                                                                                 | 4     | 1      | 116                                                                               | 0    | 4     | 62                                                                                  | 18   |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |       |                                                                                     |      |
| Conflicting Flow All     | 199    | 197                                                                               | 71     | 198        | 206                                                                               | 116   | 80     | 0                                                                                 | 0    | 116   | 0                                                                                   | 0    |
| Stage 1                  | 79     | 79                                                                                | -      | 118        | 118                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                  | 120    | 118                                                                               | -      | 80         | 88                                                                                | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Critical Hdwy            | 7.15   | 6.55                                                                              | 6.25   | 7.12       | 6.52                                                                              | 6.22  | 4.19   | -                                                                                 | -    | 4.19  | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.15   | 5.55                                                                              | -      | 6.12       | 5.52                                                                              | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.15   | 5.55                                                                              | -      | 6.12       | 5.52                                                                              | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Follow-up Hdwy           | 3.545  | 4.045                                                                             | 3.345  | 3.518      | 4.018                                                                             | 3.318 | 2.281  | -                                                                                 | -    | 2.281 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 753    | 693                                                                               | 983    | 761        | 691                                                                               | 936   | 1475   | -                                                                                 | -    | 1430  | -                                                                                   | -    |
| Stage 1                  | 922    | 823                                                                               | -      | 887        | 798                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                  | 877    | 792                                                                               | -      | 929        | 822                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |       | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 747    | 690                                                                               | 983    | 757        | 688                                                                               | 936   | 1475   | -                                                                                 | -    | 1430  | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 747    | 690                                                                               | -      | 757        | 688                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 1                  | 921    | 821                                                                               | -      | 886        | 797                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                  | 872    | 791                                                                               | -      | 924        | 820                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |       |                                                                                     |      |
| HCM Control Delay, s     | 10     |                                                                                   | 8.9    |            | 0.1                                                                               |       | 0.4    |                                                                                   |      |       |                                                                                     |      |
| HCM LOS                  | B      |                                                                                   | A      |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |       |                                                                                     |      |
| Capacity (veh/h)         | 1475   | -                                                                                 | -      | 758        | 936                                                                               | 1430  | -      | -                                                                                 |      |       |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.001  | -                                                                                 | -      | 0.048      | 0.005                                                                             | 0.003 | -      | -                                                                                 |      |       |                                                                                     |      |
| HCM Control Delay (s)    | 7.4    | 0                                                                                 | -      | 10         | 8.9                                                                               | 7.5   | 0      | -                                                                                 |      |       |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -      | B          | A                                                                                 | A     | A      | -                                                                                 |      |       |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0.2        | 0                                                                                 | 0     | -      | -                                                                                 |      |       |                                                                                     |      |

| 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       | 21     | 0     | 2      | 0          | 0      | 4     | 2      | 73   | 0    | 4     | 115  | 35   |
| Future Vol, veh/h        | 21     | 0     | 2      | 0          | 0      | 4     | 2      | 73   | 0    | 4     | 115  | 35   |
| Conflicting Peds, #/hr   | 0      | 0     | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0     | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free  | Free | Free |
| RT Channelized           | -      | -     | None   | -          | -      | None  | -      | -    | None | -     | -    | None |
| Storage Length           | -      | -     | -      | -          | -      | -     | -      | -    | -    | -     | -    | -    |
| Veh in Median Storage, # | -      | 0     | -      | -          | 0      | -     | -      | 0    | -    | -     | 0    | -    |
| Grade, %                 | -      | 0     | -      | -          | 0      | -     | -      | 0    | -    | -     | 0    | -    |
| Peak Hour Factor         | 86     | 86    | 86     | 86         | 86     | 86    | 86     | 86   | 86   | 86    | 86   | 86   |
| Heavy Vehicles, %        | 13     | 13    | 13     | 2          | 2      | 2     | 5      | 5    | 5    | 2     | 2    | 2    |
| Mvmt Flow                | 24     | 0     | 2      | 0          | 0      | 5     | 2      | 85   | 0    | 5     | 134  | 41   |
|                          |        |       |        |            |        |       |        |      |      |       |      |      |
| Major/Minor              | Minor2 |       | Minor1 |            | Major1 |       | Major2 |      |      |       |      |      |
| Conflicting Flow All     | 257    | 254   | 155    | 255        | 274    | 85    | 175    | 0    | 0    | 85    | 0    | 0    |
| Stage 1                  | 165    | 165   | -      | 89         | 89     | -     | -      | -    | -    | -     | -    | -    |
| Stage 2                  | 92     | 89    | -      | 166        | 185    | -     | -      | -    | -    | -     | -    | -    |
| Critical Hdwy            | 7.23   | 6.63  | 6.33   | 7.12       | 6.52   | 6.22  | 4.15   | -    | -    | 4.12  | -    | -    |
| Critical Hdwy Stg 1      | 6.23   | 5.63  | -      | 6.12       | 5.52   | -     | -      | -    | -    | -     | -    | -    |
| Critical Hdwy Stg 2      | 6.23   | 5.63  | -      | 6.12       | 5.52   | -     | -      | -    | -    | -     | -    | -    |
| Follow-up Hdwy           | 3.617  | 4.117 | 3.417  | 3.518      | 4.018  | 3.318 | 2.245  | -    | -    | 2.218 | -    | -    |
| Pot Cap-1 Maneuver       | 674    | 631   | 863    | 698        | 633    | 974   | 1383   | -    | -    | 1512  | -    | -    |
| Stage 1                  | 812    | 741   | -      | 918        | 821    | -     | -      | -    | -    | -     | -    | -    |
| Stage 2                  | 889    | 800   | -      | 836        | 747    | -     | -      | -    | -    | -     | -    | -    |
| Platoon blocked, %       |        |       |        |            |        |       |        | -    | -    |       | -    | -    |
| Mov Cap-1 Maneuver       | 668    | 627   | 863    | 693        | 629    | 974   | 1383   | -    | -    | 1512  | -    | -    |
| Mov Cap-2 Maneuver       | 668    | 627   | -      | 693        | 629    | -     | -      | -    | -    | -     | -    | -    |
| Stage 1                  | 810    | 738   | -      | 916        | 819    | -     | -      | -    | -    | -     | -    | -    |
| Stage 2                  | 883    | 798   | -      | 830        | 744    | -     | -      | -    | -    | -     | -    | -    |
|                          |        |       |        |            |        |       |        |      |      |       |      |      |
|                          |        |       |        |            |        |       |        |      |      |       |      |      |
| Approach                 | EB     |       | WB     |            | NB     |       | SB     |      |      |       |      |      |
| HCM Control Delay, s     | 10.5   |       | 8.7    |            | 0.2    |       | 0.2    |      |      |       |      |      |
| HCM LOS                  | B      |       | A      |            |        |       |        |      |      |       |      |      |
|                          |        |       |        |            |        |       |        |      |      |       |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |       |      |      |
| Capacity (veh/h)         | 1383   | -     | -      | 681        | 974    | 1512  | -      | -    |      |       |      |      |
| HCM Lane V/C Ratio       | 0.002  | -     | -      | 0.039      | 0.005  | 0.003 | -      | -    |      |       |      |      |
| HCM Control Delay (s)    | 7.6    | 0     | -      | 10.5       | 8.7    | 7.4   | 0      | -    |      |       |      |      |
| HCM Lane LOS             | A      | A     | -      | B          | A      | A     | A      | -    |      |       |      |      |
| HCM 95th %tile O(veh)    | 0      | -     | -      | 0.1        | 0      | 0     | -      | -    |      |       |      |      |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.2  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 24   | 0    | 1    | 1    | 0    | 8    | 0    | 73   | 1    | 4    | 41   | 13   |
| Future Vol, veh/h        | 24   | 0    | 1    | 1    | 0    | 8    | 0    | 73   | 1    | 4    | 41   | 13   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   | 87   |
| Heavy Vehicles, %        | 50   | 50   | 50   | 2    | 2    | 2    | 11   | 11   | 11   | 3    | 3    | 3    |
| Mvmt Flow                | 28   | 0    | 1    | 1    | 0    | 9    | 0    | 84   | 1    | 5    | 47   | 15   |

| Major/Minor          | Minor2 |      | Minor1 |       | Major1 |       |       | Major2 |   |       |   |   |
|----------------------|--------|------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 154    | 150  | 55     | 150   | 157    | 85    | 62    | 0      | 0 | 85    | 0 | 0 |
| Stage 1              | 65     | 65   | -      | 85    | 85     | -     | -     | -      | - | -     | - | - |
| Stage 2              | 89     | 85   | -      | 65    | 72     | -     | -     | -      | - | -     | - | - |
| Critical Hdwy        | 7.6    | 7    | 6.7    | 7.12  | 6.52   | 6.22  | 4.21  | -      | - | 4.13  | - | - |
| Critical Hdwy Stg 1  | 6.6    | 6    | -      | 6.12  | 5.52   | -     | -     | -      | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.6    | 6    | -      | 6.12  | 5.52   | -     | -     | -      | - | -     | - | - |
| Follow-up Hdwy       | 3.95   | 4.45 | 3.75   | 3.518 | 4.018  | 3.318 | 2.299 | -      | - | 2.227 | - | - |
| Pot Cap-1 Maneuver   | 716    | 662  | 892    | 818   | 735    | 974   | 1485  | -      | - | 1505  | - | - |
| Stage 1              | 838    | 755  | -      | 923   | 824    | -     | -     | -      | - | -     | - | - |
| Stage 2              | 813    | 740  | -      | 946   | 835    | -     | -     | -      | - | -     | - | - |
| Platoon blocked, %   |        |      |        |       |        |       |       | -      | - |       | - | - |
| Mov Cap-1 Maneuver   | 707    | 660  | 892    | 815   | 733    | 974   | 1485  | -      | - | 1505  | - | - |
| Mov Cap-2 Maneuver   | 707    | 660  | -      | 815   | 733    | -     | -     | -      | - | -     | - | - |
| Stage 1              | 838    | 753  | -      | 923   | 824    | -     | -     | -      | - | -     | - | - |
| Stage 2              | 805    | 740  | -      | 942   | 832    | -     | -     | -      | - | -     | - | - |

| Approach             | EB   |  | WB  |  | NB |  |  | SB  |  |  |  |  |
|----------------------|------|--|-----|--|----|--|--|-----|--|--|--|--|
| HCM Control Delay, s | 10.3 |  | 8.8 |  | 0  |  |  | 0.5 |  |  |  |  |
| HCM LOS              | B    |  | A   |  |    |  |  |     |  |  |  |  |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|------------|-------|-----|-----|
| Capacity (veh/h)      | 1485 | -   | -   | 713 953    | 1505  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.04 0.011 | 0.003 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 10.3 8.8   | 7.4   | 0   | -   |
| HCM Lane LOS          | A    | -   | -   | B A        | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0.1 0      | 0     | -   | -   |

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.5  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↔    |      |      | ↔    |      |      | ↔    |      |      | ↔    |      |
| Traffic Vol, veh/h       | 16   | 0    | 0    | 1    | 0    | 5    | 1    | 53   | 1    | 9    | 81   | 27   |
| Future Vol, veh/h        | 16   | 0    | 0    | 1    | 0    | 5    | 1    | 53   | 1    | 9    | 81   | 27   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 6    | 6    | 6    |
| Mvmt Flow                | 20   | 0    | 0    | 1    | 0    | 6    | 1    | 66   | 1    | 11   | 101  | 34   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       |       | Major2 |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 212    | 209   | 118    | 209   | 226    | 67    | 135   | 0      | 0 | 67    | 0 | 0 |
| Stage 1              | 140    | 140   | -      | 69    | 69     | -     | -     | -      | - | -     | - | - |
| Stage 2              | 72     | 69    | -      | 140   | 157    | -     | -     | -      | - | -     | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22   | 7.12  | 6.52   | 6.22  | 4.12  | -      | - | 4.16  | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -     | -      | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -     | -      | - | -     | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318  | 3.518 | 4.018  | 3.318 | 2.218 | -      | - | 2.254 | - | - |
| Pot Cap-1 Maneuver   | 745    | 688   | 934    | 748   | 673    | 997   | 1449  | -      | - | 1509  | - | - |
| Stage 1              | 863    | 781   | -      | 941   | 837    | -     | -     | -      | - | -     | - | - |
| Stage 2              | 938    | 837   | -      | 863   | 768    | -     | -     | -      | - | -     | - | - |
| Platoon blocked, %   |        |       |        |       |        |       |       | -      | - | -     | - | - |
| Mov Cap-1 Maneuver   | 735    | 682   | 934    | 743   | 667    | 997   | 1449  | -      | - | 1509  | - | - |
| Mov Cap-2 Maneuver   | 735    | 682   | -      | 743   | 667    | -     | -     | -      | - | -     | - | - |
| Stage 1              | 862    | 775   | -      | 940   | 836    | -     | -     | -      | - | -     | - | - |
| Stage 2              | 931    | 836   | -      | 856   | 762    | -     | -     | -      | - | -     | - | - |

| Approach             | EB |  | WB  |  | NB  |  | SB  |  |
|----------------------|----|--|-----|--|-----|--|-----|--|
| HCM Control Delay, s | 10 |  | 8.8 |  | 0.1 |  | 0.6 |  |
| HCM LOS              | B  |  | A   |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1  | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|-------|-----|-----|
| Capacity (veh/h)      | 1449  | -   | -   | 735 943     | 1509  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.027 0.008 | 0.007 | -   | -   |
| HCM Control Delay (s) | 7.5   | 0   | -   | 10 8.8      | 7.4   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   | B A         | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.1 0       | 0     | -   | -   |

HCM 6th TWSC  
6: Del Webb & Amenity

Upper Petroglyphs TIA  
2030 Build Del Webb Blvd AM Intersections

| Intersection             |                                                                                   |          |                                                                                   |       |       |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.5                                                                               |          |                                                                                   |       |       |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR   | SBL   | SBT                                                                               |
| Lane Configurations      |  |          |  |       |       |  |
| Traffic Vol, veh/h       | 0                                                                                 | 4        | 74                                                                                | 0     | 4     | 43                                                                                |
| Future Vol, veh/h        | 0                                                                                 | 4        | 74                                                                                | 0     | 4     | 43                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0        | 0                                                                                 | 0     | 0     | 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         | 93                                                                                | 93       | 93                                                                                | 93    | 93    | 93                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2        | 4                                                                                 | 4     | 3     | 3                                                                                 |
| Mvmt Flow                | 0                                                                                 | 4        | 80                                                                                | 0     | 4     | 46                                                                                |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |       |       |                                                                                   |
| Conflicting Flow All     | 134                                                                               | 80       | 0                                                                                 | 0     | 80    | 0                                                                                 |
| Stage 1                  | 80                                                                                | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 54                                                                                | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy            | 6.42                                                                              | 6.22     | -                                                                                 | -     | 4.13  | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -     | -     | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.318    | -                                                                                 | -     | 2.227 | -                                                                                 |
| Pot Cap-1 Maneuver       | 860                                                                               | 980      | -                                                                                 | -     | 1512  | -                                                                                 |
| Stage 1                  | 943                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 969                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -     |       | -                                                                                 |
| Mov Cap-1 Maneuver       | 857                                                                               | 980      | -                                                                                 | -     | 1512  | -                                                                                 |
| Mov Cap-2 Maneuver       | 857                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 1                  | 940                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                  | 969                                                                               | -        | -                                                                                 | -     | -     | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB    |       |                                                                                   |
| HCM Control Delay, s     | 8.7                                                                               | 0        |                                                                                   | 0.6   |       |                                                                                   |
| HCM LOS                  | A                                                                                 |          |                                                                                   |       |       |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT   |       |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 980                                                                               | 1512  | -     |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.004                                                                             | 0.003 | -     |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 8.7                                                                               | 7.4   | 0     |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | A                                                                                 | A     | A     |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 0                                                                                 | 0     | -     |                                                                                   |

| Intersection             |                                                                                   |      |                                                                                   |      |      |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.4                                                                               |      |                                                                                   |      |      |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 0                                                                                 | 4    | 55                                                                                | 0    | 4    | 82                                                                                |
| Future Vol, veh/h        | 0                                                                                 | 4    | 55                                                                                | 0    | 4    | 82                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 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         | 90                                                                                | 90   | 90                                                                                | 90   | 90   | 90                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 6                                                                                 | 6    | 2    | 2                                                                                 |
| Mvmt Flow                | 0                                                                                 | 4    | 61                                                                                | 0    | 4    | 91                                                                                |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 160    | 61     | 0      |
| Stage 1              | 61     | -      | -      |
| Stage 2              | 99     | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 831    | 1004   | -      |
| Stage 1              | 962    | -      | -      |
| Stage 2              | 925    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 829    | 1004   | -      |
| Mov Cap-2 Maneuver   | 829    | -      | -      |
| Stage 1              | 959    | -      | -      |
| Stage 2              | 925    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.6 | 0  | 0.3 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 1004  | 1542  |
| HCM Lane V/C Ratio    | -   | -        | 0.004 | 0.003 |
| HCM Control Delay (s) | -   | -        | 8.6   | 7.3   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0     |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1                                                                                 |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 66                                                                                | 1    | 4      | 39                                                                                | 2                                                                                 | 8     |
| Future Vol, veh/h        | 66                                                                                | 1    | 4      | 39                                                                                | 2                                                                                 | 8     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 91                                                                                | 91   | 91     | 91                                                                                | 91                                                                                | 91    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 6      | 6                                                                                 | 6                                                                                 | 6     |
| Mvmt Flow                | 73                                                                                | 1    | 4      | 43                                                                                | 2                                                                                 | 9     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 74     | 0                                                                                 | 125                                                                               | 74    |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 74                                                                                | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 51                                                                                | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.16   | -                                                                                 | 6.46                                                                              | 6.26  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.46                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.46                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.254  | -                                                                                 | 3.554                                                                             | 3.354 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1500   | -                                                                                 | 860                                                                               | 977   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 939                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 961                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1500   | -                                                                                 | 857                                                                               | 977   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 857                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 936                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 961                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0.7    |                                                                                   | 8.8                                                                               |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 950                                                                               | -    | -      | 1500                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.012                                                                             | -    | -      | 0.003                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 8.8                                                                               | -    | -      | 7.4                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.9                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBT                                                                               | EBR    | WBL   | WBT                                                                               | NBL                                                                               | NBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 50                                                                                | 2      | 9     | 73                                                                                | 2                                                                                 | 5    |
| Future Vol, veh/h        | 50                                                                                | 2      | 9     | 73                                                                                | 2                                                                                 | 5    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free   | Free  | Free                                                                              | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None |
| Storage Length           | -                                                                                 | -      | -     | -                                                                                 | -                                                                                 | -    |
| Veh in Median Storage, # | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                 | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor         | 95                                                                                | 95     | 95    | 95                                                                                | 95                                                                                | 95   |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 3     | 3                                                                                 | 10                                                                                | 10   |
| Mvmt Flow                | 53                                                                                | 2      | 9     | 77                                                                                | 2                                                                                 | 5    |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Major/Minor              | Major1                                                                            | Major2 |       | Minor1                                                                            |                                                                                   |      |
| Conflicting Flow All     | 0                                                                                 | 0      | 55    | 0                                                                                 | 149                                                                               | 54   |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 54                                                                                | -    |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 95                                                                                | -    |
| Critical Hdwy            | -                                                                                 | -      | 4.13  | -                                                                                 | 6.5                                                                               | 6.3  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -     | -                                                                                 | 5.5                                                                               | -    |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -     | -                                                                                 | 5.5                                                                               | -    |
| Follow-up Hdwy           | -                                                                                 | -      | 2.227 | -                                                                                 | 3.59                                                                              | 3.39 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1544  | -                                                                                 | 825                                                                               | 991  |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 948                                                                               | -    |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 909                                                                               | -    |
| Platoon blocked, %       | -                                                                                 | -      |       | -                                                                                 |                                                                                   |      |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1544  | -                                                                                 | 820                                                                               | 991  |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -     | -                                                                                 | 820                                                                               | -    |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 942                                                                               | -    |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 909                                                                               | -    |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Approach                 | EB                                                                                | WB     |       | NB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 0                                                                                 | 0.8    |       | 8.9                                                                               |                                                                                   |      |
| HCM LOS                  | A                                                                                 |        |       |                                                                                   |                                                                                   |      |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|                          |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR   | WBL                                                                               | WBT                                                                               |      |
| Capacity (veh/h)         | 935                                                                               | -      | -     | 1544                                                                              | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.008                                                                             | -      | -     | 0.006                                                                             | -                                                                                 |      |
| HCM Control Delay (s)    | 8.9                                                                               | -      | -     | 7.3                                                                               | 0                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | -      | -     | A                                                                                 | A                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | -     | 0                                                                                 | -                                                                                 |      |

| Intersection             |        |       |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 2      |       |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕     |      |        | ↕     |       |        | ↕     |       |
| Traffic Vol, veh/h       | 2      | 52    | 1    | 4      | 33    | 4    | 2      | 0     | 8     | 7      | 0     | 4     |
| Future Vol, veh/h        | 2      | 52    | 1    | 4      | 33    | 4    | 2      | 0     | 8     | 7      | 0     | 4     |
| Conflicting Peds, #/hr   | 0      | 0     | 0    | 0      | 0     | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free  | Free | Free   | Free  | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -     | None | -      | -     | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -     | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Veh in Median Storage, # | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 83     | 83    | 83   | 83     | 83    | 83   | 83     | 83    | 83    | 83     | 83    | 83    |
| Heavy Vehicles, %        | 2      | 2     | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 2      | 63    | 1    | 5      | 40    | 5    | 2      | 0     | 10    | 8      | 0     | 5     |
|                          |        |       |      |        |       |      |        |       |       |        |       |       |
| Major/Minor              | Major1 |       |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 45     | 0     | 0    | 64     | 0     | 0    | 123    | 123   | 64    | 126    | 121   | 43    |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 68     | 68    | -     | 53     | 53    | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 55     | 55    | -     | 73     | 68    | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1563   | -     | -    | 1538   | -     | -    | 852    | 767   | 1000  | 848    | 769   | 1027  |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 942    | 838   | -     | 960    | 851   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 957    | 849   | -     | 937    | 838   | -     |
| Platoon blocked, %       |        | -     | -    |        | -     | -    |        |       |       |        |       |       |
| Mov Cap-1 Maneuver       | 1563   | -     | -    | 1538   | -     | -    | 845    | 764   | 1000  | 837    | 766   | 1027  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -     | -    | 845    | 764   | -     | 837    | 766   | -     |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 941    | 837   | -     | 959    | 848   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 950    | 846   | -     | 927    | 837   | -     |
|                          |        |       |      |        |       |      |        |       |       |        |       |       |
|                          |        |       |      |        |       |      |        |       |       |        |       |       |
| Approach                 | EB     |       |      | WB     |       |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 0.3    |       |      | 0.7    |       |      | 8.8    |       |       | 9.1    |       |       |
| HCM LOS                  |        |       |      |        |       |      | A      |       |       | A      |       |       |
|                          |        |       |      |        |       |      |        |       |       |        |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 |       |        |       |       |
| Capacity (veh/h)         | 965    | 1563  | -    | -      | 1538  | -    | -      | 897   |       |        |       |       |
| HCM Lane V/C Ratio       | 0.012  | 0.002 | -    | -      | 0.003 | -    | -      | 0.015 |       |        |       |       |
| HCM Control Delay (s)    | 8.8    | 7.3   | 0    | -      | 7.3   | 0    | -      | 9.1   |       |        |       |       |
| HCM Lane LOS             | A      | A     | A    | -      | A     | A    | -      | A     |       |        |       |       |
| HCM 95th %tile O(veh)    | 0      | 0     | -    | -      | 0     | -    | -      | 0     |       |        |       |       |

| Intersection             |        |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1.7    |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Movement                 | EBL    | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR   | SBL    | SBT                                                                                 | SBR   |
| Lane Configurations      |        |  |      |        |  |      |        |  |       |        |  |       |
| Traffic Vol, veh/h       | 4      | 42                                                                                | 2    | 9      | 58                                                                                | 8    | 2      | 0                                                                                 | 5     | 5      | 0                                                                                   | 3     |
| Future Vol, veh/h        | 4      | 42                                                                                | 2    | 9      | 58                                                                                | 8    | 2      | 0                                                                                 | 5     | 5      | 0                                                                                   | 3     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                   | 0     |
| Sign Control             | Free   | Free                                                                              | Free | Free   | Free                                                                              | Free | Stop   | Stop                                                                              | Stop  | Stop   | Stop                                                                                | Stop  |
| RT Channelized           | -      | -                                                                                 | None | -      | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                   | None  |
| Storage Length           | -      | -                                                                                 | -    | -      | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                   | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Grade, %                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Peak Hour Factor         | 86     | 86                                                                                | 86   | 86     | 86                                                                                | 86   | 86     | 86                                                                                | 86    | 86     | 86                                                                                  | 86    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2    | 3      | 3                                                                                 | 3    | 2      | 2                                                                                 | 2     | 3      | 3                                                                                   | 3     |
| Mvmt Flow                | 5      | 49                                                                                | 2    | 10     | 67                                                                                | 9    | 2      | 0                                                                                 | 6     | 6      | 0                                                                                   | 3     |
|                          |        |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Major/Minor              | Major1 |                                                                                   |      | Major2 |                                                                                   |      | Minor1 |                                                                                   |       | Minor2 |                                                                                     |       |
| Conflicting Flow All     | 76     | 0                                                                                 | 0    | 51     | 0                                                                                 | 0    | 153    | 156                                                                               | 50    | 155    | 153                                                                                 | 72    |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 60     | 60                                                                                | -     | 92     | 92                                                                                  | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 93     | 96                                                                                | -     | 63     | 61                                                                                  | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -    | 4.13   | -                                                                                 | -    | 7.12   | 6.52                                                                              | 6.22  | 7.13   | 6.53                                                                                | 6.23  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.13   | 5.53                                                                                | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.13   | 5.53                                                                                | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -    | 2.227  | -                                                                                 | -    | 3.518  | 4.018                                                                             | 3.318 | 3.527  | 4.027                                                                               | 3.327 |
| Pot Cap-1 Maneuver       | 1523   | -                                                                                 | -    | 1549   | -                                                                                 | -    | 814    | 736                                                                               | 1018  | 809    | 737                                                                                 | 987   |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 951    | 845                                                                               | -     | 913    | 817                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 914    | 815                                                                               | -     | 945    | 842                                                                                 | -     |
| Platoon blocked, %       |        | -                                                                                 | -    |        | -                                                                                 | -    |        |                                                                                   |       |        |                                                                                     |       |
| Mov Cap-1 Maneuver       | 1523   | -                                                                                 | -    | 1549   | -                                                                                 | -    | 805    | 729                                                                               | 1018  | 798    | 730                                                                                 | 987   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 805    | 729                                                                               | -     | 798    | 730                                                                                 | -     |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 948    | 842                                                                               | -     | 910    | 811                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -    | 904    | 809                                                                               | -     | 937    | 839                                                                                 | -     |
|                          |        |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Approach                 | EB     |                                                                                   |      | WB     |                                                                                   |      | NB     |                                                                                   |       | SB     |                                                                                     |       |
| HCM Control Delay, s     | 0.6    |                                                                                   |      | 0.9    |                                                                                   |      | 8.8    |                                                                                   |       | 9.2    |                                                                                     |       |
| HCM LOS                  |        |                                                                                   |      |        |                                                                                   |      | A      |                                                                                   |       | A      |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL                                                                               | EBT  | EBR    | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |       |        |                                                                                     |       |
| Capacity (veh/h)         | 946    | 1523                                                                              | -    | -      | 1549                                                                              | -    | -      | 860                                                                               |       |        |                                                                                     |       |
| HCM Lane V/C Ratio       | 0.009  | 0.003                                                                             | -    | -      | 0.007                                                                             | -    | -      | 0.011                                                                             |       |        |                                                                                     |       |
| HCM Control Delay (s)    | 8.8    | 7.4                                                                               | 0    | -      | 7.3                                                                               | 0    | -      | 9.2                                                                               |       |        |                                                                                     |       |
| HCM Lane LOS             | A      | A                                                                                 | A    | -      | A                                                                                 | A    | -      | A                                                                                 |       |        |                                                                                     |       |
| HCM 95th %tile O(veh)    | 0      | 0                                                                                 | -    | -      | 0                                                                                 | -    | -      | 0                                                                                 |       |        |                                                                                     |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 1.1                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 48                                                                                | 1    | 4      | 36                                                                                | 2                                                                                 | 7     |
| Future Vol, veh/h        | 48                                                                                | 1    | 4      | 36                                                                                | 2                                                                                 | 7     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 64                                                                                | 64   | 64     | 64                                                                                | 64                                                                                | 64    |
| Heavy Vehicles, %        | 6                                                                                 | 6    | 6      | 6                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 75                                                                                | 2    | 6      | 56                                                                                | 3                                                                                 | 11    |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 77     | 0                                                                                 | 144                                                                               | 76    |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 76                                                                                | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 68                                                                                | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.16   | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.254  | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1497   | -                                                                                 | 849                                                                               | 985   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 947                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 955                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1497   | -                                                                                 | 846                                                                               | 985   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 846                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 943                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 955                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 0.7    |                                                                                   | 8.8                                                                               |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 950                                                                               | -    | -      | 1497                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.015                                                                             | -    | -      | 0.004                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 8.8                                                                               | -    | -      | 7.4                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.9                                                                               |      |        |                                                                                   |        |                                                                                   |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL    | NBR                                                                               |
| Lane Configurations      |  |      |        |  |        |  |
| Traffic Vol, veh/h       | 44                                                                                | 2    | 8      | 54                                                                                | 1      | 5                                                                                 |
| Future Vol, veh/h        | 44                                                                                | 2    | 8      | 54                                                                                | 1      | 5                                                                                 |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0      | 0                                                                                 |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop   | Stop                                                                              |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -      | None                                                                              |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0      | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0      | -                                                                                 |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0      | -                                                                                 |
| Peak Hour Factor         | 83                                                                                | 83   | 83     | 83                                                                                | 83     | 83                                                                                |
| Heavy Vehicles, %        | 11                                                                                | 11   | 2      | 2                                                                                 | 2      | 2                                                                                 |
| Mvmt Flow                | 53                                                                                | 2    | 10     | 65                                                                                | 1      | 6                                                                                 |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1 |                                                                                   |
| Conflicting Flow All     | 0                                                                                 | 0    | 55     | 0                                                                                 | 139    | 54                                                                                |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 54     | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 85     | -                                                                                 |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.42   | 6.22                                                                              |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.42   | -                                                                                 |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.42   | -                                                                                 |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.518  | 3.318                                                                             |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1550   | -                                                                                 | 854    | 1013                                                                              |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 969    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 938    | -                                                                                 |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |        |                                                                                   |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1550   | -                                                                                 | 848    | 1013                                                                              |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 848    | -                                                                                 |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 962    | -                                                                                 |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 938    | -                                                                                 |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB     |                                                                                   |
| HCM Control Delay, s     | 0                                                                                 |      | 0.9    |                                                                                   | 8.7    |                                                                                   |
| HCM LOS                  | A                                                                                 |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
|                          |                                                                                   |      |        |                                                                                   |        |                                                                                   |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT    |                                                                                   |
| Capacity (veh/h)         | 981                                                                               | -    | -      | 1550                                                                              | -      |                                                                                   |
| HCM Lane V/C Ratio       | 0.007                                                                             | -    | -      | 0.006                                                                             | -      |                                                                                   |
| HCM Control Delay (s)    | 8.7                                                                               | -    | -      | 7.3                                                                               | 0      |                                                                                   |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | A      |                                                                                   |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -    | -      | 0                                                                                 | -      |                                                                                   |

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 4.1    |                                                                                   |                                                                                   |        |                                                                                   |       |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR   |
| Lane Configurations      |        |  |  |        |  |       |
| Traffic Vol, veh/h       | 4      | 15                                                                                | 20                                                                                | 18     | 34                                                                                | 7     |
| Future Vol, veh/h        | 4      | 15                                                                                | 20                                                                                | 18     | 34                                                                                | 7     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0     |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop  |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None   | -                                                                                 | None  |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -      | -                                                                                 | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -     |
| Peak Hour Factor         | 85     | 85                                                                                | 85                                                                                | 85     | 85                                                                                | 85    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2     |
| Mvmt Flow                | 5      | 18                                                                                | 24                                                                                | 21     | 40                                                                                | 8     |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |       |
| Conflicting Flow All     | 45     | 0                                                                                 | -                                                                                 | 0      | 63                                                                                | 35    |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 35                                                                                | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 28                                                                                | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -      | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -      | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | 1563   | -                                                                                 | -                                                                                 | -      | 943                                                                               | 1038  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 987                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 995                                                                               | -     |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |       |
| Mov Cap-1 Maneuver       | 1563   | -                                                                                 | -                                                                                 | -      | 940                                                                               | 1038  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 940                                                                               | -     |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 984                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 995                                                                               | -     |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |       |
| HCM Control Delay, s     | 1.5    | 0                                                                                 |                                                                                   | 9      |                                                                                   |       |
| HCM LOS                  |        |                                                                                   |                                                                                   | A      |                                                                                   |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |       |
| Capacity (veh/h)         | 1563   | -                                                                                 | -                                                                                 | -      | 955                                                                               |       |
| HCM Lane V/C Ratio       | 0.003  | -                                                                                 | -                                                                                 | -      | 0.051                                                                             |       |
| HCM Control Delay (s)    | 7.3    | 0                                                                                 | -                                                                                 | -      | 9                                                                                 |       |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -      | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 0.2                                                                               |       |

| Intersection             |        |                                                                                   |                                                                                   |      |                                                                                   |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 2.7    |                                                                                   |                                                                                   |      |                                                                                   |       |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR   |
| Lane Configurations      |        |  |  |      |  |       |
| Traffic Vol, veh/h       | 7      | 22                                                                                | 18                                                                                | 37   | 23                                                                                | 5     |
| Future Vol, veh/h        | 7      | 22                                                                                | 18                                                                                | 37   | 23                                                                                | 5     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0     |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop  |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None | -                                                                                 | None  |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -    | -                                                                                 | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -     |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -     |
| Peak Hour Factor         | 85     | 85                                                                                | 85                                                                                | 85   | 85                                                                                | 85    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2     |
| Mvmt Flow                | 8      | 26                                                                                | 21                                                                                | 44   | 27                                                                                | 6     |
| Major/Minor              | Major1 | Major2                                                                            | Minor2                                                                            |      |                                                                                   |       |
| Conflicting Flow All     | 65     | 0                                                                                 | -                                                                                 | 0    | 85                                                                                | 43    |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 43                                                                                | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 42                                                                                | -     |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -    | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -    | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -    | 5.42                                                                              | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -    | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | 1537   | -                                                                                 | -                                                                                 | -    | 916                                                                               | 1027  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 979                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 980                                                                               | -     |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -    |                                                                                   |       |
| Mov Cap-1 Maneuver       | 1537   | -                                                                                 | -                                                                                 | -    | 911                                                                               | 1027  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -    | 911                                                                               | -     |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 974                                                                               | -     |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 980                                                                               | -     |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB   |                                                                                   |       |
| HCM Control Delay, s     | 1.8    | 0                                                                                 |                                                                                   | 9    |                                                                                   |       |
| HCM LOS                  |        |                                                                                   |                                                                                   | A    |                                                                                   |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |       |
| Capacity (veh/h)         | 1537   | -                                                                                 | -                                                                                 | -    | 930                                                                               |       |
| HCM Lane V/C Ratio       | 0.005  | -                                                                                 | -                                                                                 | -    | 0.035                                                                             |       |
| HCM Control Delay (s)    | 7.4    | 0                                                                                 | -                                                                                 | -    | 9                                                                                 |       |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -    | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -    | 0.1                                                                               |       |

| Intersection             |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 2.2                                                                               |      |        |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR  | WBL    | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |      |        |  |  |       |
| Traffic Vol, veh/h       | 12                                                                                | 1    | 4      | 23                                                                                | 2                                                                                 | 7     |
| Future Vol, veh/h        | 12                                                                                | 1    | 4      | 23                                                                                | 2                                                                                 | 7     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free | Free   | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None | -      | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -    | -      | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 38                                                                                | 38   | 85     | 85                                                                                | 56                                                                                | 56    |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2      | 2                                                                                 | 32                                                                                | 32    |
| Mvmt Flow                | 32                                                                                | 3    | 5      | 27                                                                                | 4                                                                                 | 13    |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Major/Minor              | Major1                                                                            |      | Major2 |                                                                                   | Minor1                                                                            |       |
| Conflicting Flow All     | 0                                                                                 | 0    | 35     | 0                                                                                 | 71                                                                                | 34    |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 34                                                                                | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 37                                                                                | -     |
| Critical Hdwy            | -                                                                                 | -    | 4.12   | -                                                                                 | 6.72                                                                              | 6.52  |
| Critical Hdwy Stg 1      | -                                                                                 | -    | -      | -                                                                                 | 5.72                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -    | -      | -                                                                                 | 5.72                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -    | 2.218  | -                                                                                 | 3.788                                                                             | 3.588 |
| Pot Cap-1 Maneuver       | -                                                                                 | -    | 1576   | -                                                                                 | 864                                                                               | 959   |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 917                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 914                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -    |        | -                                                                                 |                                                                                   |       |
| Mov Cap-1 Maneuver       | -                                                                                 | -    | 1576   | -                                                                                 | 861                                                                               | 959   |
| Mov Cap-2 Maneuver       | -                                                                                 | -    | -      | -                                                                                 | 861                                                                               | -     |
| Stage 1                  | -                                                                                 | -    | -      | -                                                                                 | 914                                                                               | -     |
| Stage 2                  | -                                                                                 | -    | -      | -                                                                                 | 914                                                                               | -     |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Approach                 | EB                                                                                |      | WB     |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |      | 1.1    |                                                                                   | 8.9                                                                               |       |
| HCM LOS                  |                                                                                   |      |        |                                                                                   | A                                                                                 |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
|                          |                                                                                   |      |        |                                                                                   |                                                                                   |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT  | EBR    | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 935                                                                               | -    | -      | 1576                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.017                                                                             | -    | -      | 0.003                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 8.9                                                                               | -    | -      | 7.3                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -    | -      | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -    | -      | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |       |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.9                                                                               |        |       |                                                                                   |                                                                                   |       |
| Movement                 | EBT                                                                               | EBR    | WBL   | WBT                                                                               | NBL                                                                               | NBR   |
| Lane Configurations      |  |        |       |  |  |       |
| Traffic Vol, veh/h       | 25                                                                                | 2      | 7     | 16                                                                                | 2                                                                                 | 5     |
| Future Vol, veh/h        | 25                                                                                | 2      | 7     | 16                                                                                | 2                                                                                 | 5     |
| Conflicting Peds, #/hr   | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0     |
| Sign Control             | Free                                                                              | Free   | Free  | Free                                                                              | Stop                                                                              | Stop  |
| RT Channelized           | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None  |
| Storage Length           | -                                                                                 | -      | -     | -                                                                                 | 0                                                                                 | -     |
| Veh in Median Storage, # | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Grade, %                 | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -     |
| Peak Hour Factor         | 25                                                                                | 25     | 85    | 85                                                                                | 90                                                                                | 90    |
| Heavy Vehicles, %        | 2                                                                                 | 2      | 2     | 2                                                                                 | 2                                                                                 | 2     |
| Mvmt Flow                | 100                                                                               | 8      | 8     | 19                                                                                | 2                                                                                 | 6     |
| Major/Minor              | Major1                                                                            | Major2 |       | Minor1                                                                            |                                                                                   |       |
| Conflicting Flow All     | 0                                                                                 | 0      | 108   | 0                                                                                 | 139                                                                               | 104   |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 104                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 35                                                                                | -     |
| Critical Hdwy            | -                                                                                 | -      | 4.12  | -                                                                                 | 6.42                                                                              | 6.22  |
| Critical Hdwy Stg 1      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Critical Hdwy Stg 2      | -                                                                                 | -      | -     | -                                                                                 | 5.42                                                                              | -     |
| Follow-up Hdwy           | -                                                                                 | -      | 2.218 | -                                                                                 | 3.518                                                                             | 3.318 |
| Pot Cap-1 Maneuver       | -                                                                                 | -      | 1483  | -                                                                                 | 854                                                                               | 951   |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 920                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 987                                                                               | -     |
| Platoon blocked, %       | -                                                                                 | -      | -     | -                                                                                 | -                                                                                 | -     |
| Mov Cap-1 Maneuver       | -                                                                                 | -      | 1483  | -                                                                                 | 850                                                                               | 951   |
| Mov Cap-2 Maneuver       | -                                                                                 | -      | -     | -                                                                                 | 850                                                                               | -     |
| Stage 1                  | -                                                                                 | -      | -     | -                                                                                 | 915                                                                               | -     |
| Stage 2                  | -                                                                                 | -      | -     | -                                                                                 | 987                                                                               | -     |
| Approach                 | EB                                                                                |        | WB    |                                                                                   | NB                                                                                |       |
| HCM Control Delay, s     | 0                                                                                 |        | 2.3   |                                                                                   | 8.9                                                                               |       |
| HCM LOS                  |                                                                                   |        |       |                                                                                   | A                                                                                 |       |
| Minor Lane/Major Mvmt    | NBLn1                                                                             | EBT    | EBR   | WBL                                                                               | WBT                                                                               |       |
| Capacity (veh/h)         | 920                                                                               | -      | -     | 1483                                                                              | -                                                                                 |       |
| HCM Lane V/C Ratio       | 0.008                                                                             | -      | -     | 0.006                                                                             | -                                                                                 |       |
| HCM Control Delay (s)    | 8.9                                                                               | -      | -     | 7.4                                                                               | 0                                                                                 |       |
| HCM Lane LOS             | A                                                                                 | -      | -     | A                                                                                 | A                                                                                 |       |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | -     | 0                                                                                 | -                                                                                 |       |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.3                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL                                                                               | NBT                                                                               | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |  |  |      |  |  |      |
| Traffic Vol, veh/h       | 61                                                                                | 0                                                                                 | 16   | 16                                                                                | 0                                                                                 | 45   | 1                                                                                 | 402                                                                               | 1    | 15                                                                                  | 135                                                                                 | 21   |
| Future Vol, veh/h        | 61                                                                                | 0                                                                                 | 16   | 16                                                                                | 0                                                                                 | 45   | 1                                                                                 | 402                                                                               | 1    | 15                                                                                  | 135                                                                                 | 21   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                   | 0                                                                                   | 0    |
| Sign Control             | Stop                                                                              | Stop                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop | Free                                                                              | Free                                                                              | Free | Free                                                                                | Free                                                                                | Free |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -                                                                                   | -                                                                                   | None |
| Storage Length           | 150                                                                               | -                                                                                 | -    | 150                                                                               | -                                                                                 | -    | 150                                                                               | -                                                                                 | -    | 150                                                                                 | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 2                                                                                 | -    | -                                                                                 | 2                                                                                 | -    | -                                                                                 | 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                | 66                                                                                | 0                                                                                 | 17   | 17                                                                                | 0                                                                                 | 49   | 1                                                                                 | 437                                                                               | 1    | 16                                                                                  | 147                                                                                 | 23   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 412    | 631   | 159    | 639   | 642    | 219   | 170    | 0 | 0 | 438   | 0 | 0 |
| Stage 1              | 191    | 191   | -      | 440   | 440    | -     | -      | - | - | -     | - | - |
| Stage 2              | 221    | 440   | -      | 199   | 202    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.33   | 6.53  | 6.23   | 7.33  | 6.53   | 6.93  | 4.13   | - | - | 4.13  | - | - |
| Critical Hdwy Stg 1  | 6.13   | 5.53  | -      | 6.53  | 5.53   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.53   | 5.53  | -      | 6.13  | 5.53   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.519  | 4.019 | 3.319  | 3.519 | 4.019  | 3.319 | 2.219  | - | - | 2.219 | - | - |
| Pot Cap-1 Maneuver   | 537    | 397   | 886    | 374   | 392    | 786   | 1406   | - | - | 1120  | - | - |
| Stage 1              | 810    | 742   | -      | 567   | 577    | -     | -      | - | - | -     | - | - |
| Stage 2              | 762    | 577   | -      | 802   | 734    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   |        |       |        |       |        |       |        | - | - |       | - | - |
| Mov Cap-1 Maneuver   | 498    | 391   | 886    | 362   | 386    | 786   | 1406   | - | - | 1120  | - | - |
| Mov Cap-2 Maneuver   | 624    | 509   | -      | 510   | 516    | -     | -      | - | - | -     | - | - |
| Stage 1              | 809    | 732   | -      | 566   | 576    | -     | -      | - | - | -     | - | - |
| Stage 2              | 714    | 576   | -      | 775   | 724    | -     | -      | - | - | -     | - | - |

| Approach             | EB |  | WB   |  | NB |  | SB  |  |
|----------------------|----|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 11 |  | 10.5 |  | 0  |  | 0.7 |  |
| HCM LOS              | B  |  | B    |  |    |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1406  | -   | -   | 624   | 886   | 510   | 786   | 1120  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.106 | 0.02  | 0.034 | 0.062 | 0.015 | -   | -   |
| HCM Control Delay (s) | 7.6   | -   | -   | 11.5  | 9.1   | 12.3  | 9.9   | 8.3   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | B     | A     | B     | A     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.4   | 0.1   | 0.1   | 0.2   | 0     | -   | -   |

HCM 6th TWSC  
2: Estancia & Parcel 13A/Parcel 15N

Upper Petroglyphs TIA  
2030 Build Estancia Blvd PM Intersections

| Intersection             |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.6                                                                               |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | WBR   | NBL                                                                               | NBT                                                                               | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |        |  |  |       |  |  |      |  |  |      |
| Traffic Vol, veh/h       | 40                                                                                | 0                                                                                 | 3      | 3                                                                                 | 0                                                                                 | 29    | 5                                                                                 | 259                                                                               | 5    | 51                                                                                  | 449                                                                                 | 70   |
| Future Vol, veh/h        | 40                                                                                | 0                                                                                 | 3      | 3                                                                                 | 0                                                                                 | 29    | 5                                                                                 | 259                                                                               | 5    | 51                                                                                  | 449                                                                                 | 70   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0     | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                   | 0                                                                                   | 0    |
| Sign Control             | Stop                                                                              | Stop                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop  | Free                                                                              | Free                                                                              | Free | Free                                                                                | Free                                                                                | Free |
| RT Channelized           | -                                                                                 | -                                                                                 | None   | -                                                                                 | -                                                                                 | None  | -                                                                                 | -                                                                                 | None | -                                                                                   | -                                                                                   | None |
| Storage Length           | 150                                                                               | -                                                                                 | -      | 150                                                                               | -                                                                                 | -     | 150                                                                               | -                                                                                 | -    | 150                                                                                 | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 1                                                                                 | -      | -                                                                                 | 1                                                                                 | -     | -                                                                                 | 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                | 43                                                                                | 0                                                                                 | 3      | 3                                                                                 | 0                                                                                 | 32    | 5                                                                                 | 282                                                                               | 5    | 55                                                                                  | 488                                                                                 | 76   |
| Major/Minor              | Minor2                                                                            |                                                                                   | Minor1 |                                                                                   | Major1                                                                            |       | Major2                                                                            |                                                                                   |      |                                                                                     |                                                                                     |      |
| Conflicting Flow All     | 787                                                                               | 933                                                                               | 282    | 649                                                                               | 969                                                                               | 144   | 564                                                                               | 0                                                                                 | 0    | 287                                                                                 | 0                                                                                   | 0    |
| Stage 1                  | 636                                                                               | 636                                                                               | -      | 295                                                                               | 295                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Stage 2                  | 151                                                                               | 297                                                                               | -      | 354                                                                               | 674                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Critical Hdwy            | 7.54                                                                              | 6.54                                                                              | 6.94   | 7.54                                                                              | 6.54                                                                              | 6.94  | 4.14                                                                              | -                                                                                 | -    | 4.14                                                                                | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.54                                                                              | 5.54                                                                              | -      | 6.54                                                                              | 5.54                                                                              | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.54                                                                              | 5.54                                                                              | -      | 6.54                                                                              | 5.54                                                                              | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Follow-up Hdwy           | 3.52                                                                              | 4.02                                                                              | 3.32   | 3.52                                                                              | 4.02                                                                              | 3.32  | 2.22                                                                              | -                                                                                 | -    | 2.22                                                                                | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 282                                                                               | 265                                                                               | 715    | 355                                                                               | 252                                                                               | 877   | 1004                                                                              | -                                                                                 | -    | 1272                                                                                | -                                                                                   | -    |
| Stage 1                  | 433                                                                               | 470                                                                               | -      | 689                                                                               | 668                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Stage 2                  | 836                                                                               | 666                                                                               | -      | 636                                                                               | 452                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Platoon blocked, %       |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |       |                                                                                   | -                                                                                 | -    |                                                                                     | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 262                                                                               | 252                                                                               | 715    | 340                                                                               | 240                                                                               | 877   | 1004                                                                              | -                                                                                 | -    | 1272                                                                                | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 354                                                                               | 346                                                                               | -      | 446                                                                               | 338                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Stage 1                  | 431                                                                               | 450                                                                               | -      | 686                                                                               | 665                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Stage 2                  | 802                                                                               | 663                                                                               | -      | 606                                                                               | 433                                                                               | -     | -                                                                                 | -                                                                                 | -    | -                                                                                   | -                                                                                   | -    |
| Approach                 | EB                                                                                |                                                                                   | WB     |                                                                                   | NB                                                                                |       | SB                                                                                |                                                                                   |      |                                                                                     |                                                                                     |      |
| HCM Control Delay, s     | 16.1                                                                              |                                                                                   | 9.7    |                                                                                   | 0.2                                                                               |       | 0.7                                                                               |                                                                                   |      |                                                                                     |                                                                                     |      |
| HCM LOS                  | C                                                                                 |                                                                                   | A      |                                                                                   |                                                                                   |       |                                                                                   |                                                                                   |      |                                                                                     |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT                                                                               | NBR    | EBLn1                                                                             | EBLn2                                                                             | WBLn1 | WBLn2                                                                             | SBL                                                                               | SBT  | SBR                                                                                 |                                                                                     |      |
| Capacity (veh/h)         | 1004                                                                              | -                                                                                 | -      | 354                                                                               | 715                                                                               | 446   | 877                                                                               | 1272                                                                              | -    | -                                                                                   |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.005                                                                             | -                                                                                 | -      | 0.123                                                                             | 0.005                                                                             | 0.007 | 0.036                                                                             | 0.044                                                                             | -    | -                                                                                   |                                                                                     |      |
| HCM Control Delay (s)    | 8.6                                                                               | -                                                                                 | -      | 16.6                                                                              | 10.1                                                                              | 13.1  | 9.3                                                                               | 8                                                                                 | -    | -                                                                                   |                                                                                     |      |
| HCM Lane LOS             | A                                                                                 | -                                                                                 | -      | C                                                                                 | B                                                                                 | B     | A                                                                                 | A                                                                                 | -    | -                                                                                   |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -                                                                                 | -      | 0.4                                                                               | 0                                                                                 | 0     | 0.1                                                                               | 0.1                                                                               | -    | -                                                                                   |                                                                                     |      |

HCM 6th Roundabout  
3: Estancia & Parcel 13B/Parcel 15

Upper Petroglyphs TIA  
2030 Build Estancia Blvd AM Intersections

| Intersection                |       |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 4.5   |       |       |       |       |       |
| Intersection LOS            | A     |       |       |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |       |       |
| Entry Lanes                 | 1     | 1     | 2     | 2     |       |       |
| Conflicting Circle Lanes    | 2     | 2     | 2     | 2     |       |       |
| Adj Approach Flow, veh/h    | 88    | 45    | 331   | 155   |       |       |
| Demand Flow Rate, veh/h     | 90    | 46    | 338   | 158   |       |       |
| Vehicles Circulating, veh/h | 139   | 415   | 93    | 12    |       |       |
| Vehicles Exiting, veh/h     | 31    | 15    | 136   | 449   |       |       |
| Ped Vol Crossing Leg, #/h   | 0     | 0     | 0     | 0     |       |       |
| Ped Cap Adj                 | 1.000 | 1.000 | 1.000 | 1.000 |       |       |
| Approach Delay, s/veh       | 3.5   | 4.1   | 5.4   | 3.4   |       |       |
| Approach LOS                | A     | A     | A     | A     |       |       |
| Lane                        | Left  | Left  | Left  | Right | Left  | Right |
| Designated Moves            | LTR   | LTR   | LT    | R     | LT    | R     |
| Assumed Moves               | LTR   | LTR   | LT    | R     | LT    | R     |
| RT Channelized              |       |       |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 0.991 | 0.009 | 0.823 | 0.177 |
| Follow-Up Headway, s        | 2.535 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 |
| Critical Headway, s         | 4.328 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 |
| Entry Flow, veh/h           | 90    | 46    | 335   | 3     | 130   | 28    |
| Cap Entry Lane, veh/h       | 1262  | 998   | 1239  | 1312  | 1335  | 1406  |
| Entry HV Adj Factor         | 0.978 | 0.978 | 0.981 | 1.000 | 0.982 | 0.964 |
| Flow Entry, veh/h           | 88    | 45    | 328   | 3     | 128   | 27    |
| Cap Entry, veh/h            | 1234  | 976   | 1215  | 1312  | 1311  | 1356  |
| V/C Ratio                   | 0.071 | 0.046 | 0.270 | 0.002 | 0.097 | 0.020 |
| Control Delay, s/veh        | 3.5   | 4.1   | 5.4   | 2.8   | 3.5   | 2.8   |
| LOS                         | A     | A     | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 1     | 0     | 0     | 0     |

HCM 6th Roundabout  
3: Estancia & Parcel 13B/Parcel 15

Upper Petroglyphs TIA  
2030 Build Estancia Blvd PM Intersections

| Intersection                |       |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 4.8   |       |       |       |       |       |
| Intersection LOS            | A     |       |       |       |       |       |
| Approach                    | EB    | WB    | NB    |       | SB    |       |
| Entry Lanes                 | 1     | 1     | 2     |       | 2     |       |
| Conflicting Circle Lanes    | 2     | 2     | 2     |       | 2     |       |
| Adj Approach Flow, veh/h    | 57    | 28    | 236   |       | 493   |       |
| Demand Flow Rate, veh/h     | 58    | 28    | 240   |       | 503   |       |
| Vehicles Circulating, veh/h | 415   | 283   | 94    |       | 15    |       |
| Vehicles Exiting, veh/h     | 103   | 51    | 379   |       | 296   |       |
| Ped Vol Crossing Leg, #/h   | 0     | 0     | 0     |       | 0     |       |
| Ped Cap Adj                 | 1.000 | 1.000 | 1.000 |       | 1.000 |       |
| Approach Delay, s/veh       | 4.2   | 3.4   | 4.5   |       | 5.1   |       |
| Approach LOS                | A     | A     | A     |       | A     |       |
| Lane                        | Left  | Left  | Left  | Right | Left  | Right |
| Designated Moves            | LTR   | LTR   | LT    | R     | LT    | R     |
| Assumed Moves               | LTR   | LTR   | LT    | R     | LT    | R     |
| RT Channelized              |       |       |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 0.958 | 0.042 | 0.815 | 0.185 |
| Follow-Up Headway, s        | 2.535 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 |
| Critical Headway, s         | 4.328 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 |
| Entry Flow, veh/h           | 58    | 28    | 230   | 10    | 410   | 93    |
| Cap Entry Lane, veh/h       | 998   | 1116  | 1238  | 1311  | 1331  | 1402  |
| Entry HV Adj Factor         | 0.983 | 1.000 | 0.981 | 1.000 | 0.980 | 0.978 |
| Flow Entry, veh/h           | 57    | 28    | 226   | 10    | 402   | 91    |
| Cap Entry, veh/h            | 981   | 1116  | 1215  | 1311  | 1305  | 1372  |
| V/C Ratio                   | 0.058 | 0.025 | 0.186 | 0.008 | 0.308 | 0.066 |
| Control Delay, s/veh        | 4.2   | 3.4   | 4.6   | 2.8   | 5.5   | 3.1   |
| LOS                         | A     | A     | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 1     | 0     | 1     | 0     |

HCM 6th TWSC  
4: Estancia & Parcel 13C/Parcel 15S

Upper Petroglyphs TIA  
2030 Build Estancia Blvd AM Intersections

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.1    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |      |  |      |
| Traffic Vol, veh/h       | 73     | 0                                                                                 | 8      | 8          | 0                                                                                 | 33    | 3      | 198                                                                               | 3    | 11   | 87                                                                                  | 25   |
| Future Vol, veh/h        | 73     | 0                                                                                 | 8      | 8          | 0                                                                                 | 33    | 3      | 198                                                                               | 3    | 11   | 87                                                                                  | 25   |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 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                | 79     | 0                                                                                 | 9      | 9          | 0                                                                                 | 36    | 3      | 215                                                                               | 3    | 12   | 95                                                                                  | 27   |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |      |                                                                                     |      |
| Conflicting Flow All     | 247    | 357                                                                               | 61     | 295        | 369                                                                               | 109   | 122    | 0                                                                                 | 0    | 218  | 0                                                                                   | 0    |
| Stage 1                  | 133    | 133                                                                               | -      | 223        | 223                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 114    | 224                                                                               | -      | 72         | 146                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy            | 7.54   | 6.54                                                                              | 6.94   | 7.54       | 6.54                                                                              | 6.94  | 4.14   | -                                                                                 | -    | 4.14 | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Follow-up Hdwy           | 3.52   | 4.02                                                                              | 3.32   | 3.52       | 4.02                                                                              | 3.32  | 2.22   | -                                                                                 | -    | 2.22 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 686    | 568                                                                               | 991    | 635        | 559                                                                               | 924   | 1463   | -                                                                                 | -    | 1349 | -                                                                                   | -    |
| Stage 1                  | 857    | 785                                                                               | -      | 759        | 718                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 879    | 717                                                                               | -      | 929        | 775                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 653    | 561                                                                               | 991    | 624        | 552                                                                               | 924   | 1463   | -                                                                                 | -    | 1349 | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 653    | 561                                                                               | -      | 624        | 552                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 1                  | 855    | 777                                                                               | -      | 757        | 717                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 843    | 716                                                                               | -      | 912        | 767                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |      |                                                                                     |      |
| HCM Control Delay, s     | 11.1   |                                                                                   | 9.5    |            | 0.1                                                                               |       | 0.7    |                                                                                   |      |      |                                                                                     |      |
| HCM LOS                  | B      |                                                                                   | A      |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |      |                                                                                     |      |
| Capacity (veh/h)         | 1463   | -                                                                                 | -      | 676        | 845                                                                               | 1349  | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.002  | -                                                                                 | -      | 0.13       | 0.053                                                                             | 0.009 | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Control Delay (s)    | 7.5    | 0                                                                                 | -      | 11.1       | 9.5                                                                               | 7.7   | 0      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -      | B          | A                                                                                 | A     | A      | -                                                                                 |      |      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0.4        | 0.2                                                                               | 0     | -      | -                                                                                 |      |      |                                                                                     |      |

HCM 6th TWSC  
4: Estancia & Parcel 13C/Parcel 15S

Upper Petroglyphs TIA  
2030 Build Estancia Blvd PM Intersections

| Intersection             |      |                                                                                   |      |      |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.3  |                                                                                   |      |      |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL  | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |      |  |      |      |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 48   | 0                                                                                 | 5    | 5    | 0                                                                                 | 21   | 9    | 148                                                                               | 9    | 37   | 223                                                                                 | 84   |
| Future Vol, veh/h        | 48   | 0                                                                                 | 5    | 5    | 0                                                                                 | 21   | 9    | 148                                                                               | 9    | 37   | 223                                                                                 | 84   |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop | Free | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -    | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -    | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 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                | 52   | 0                                                                                 | 5    | 5    | 0                                                                                 | 23   | 10   | 161                                                                               | 10   | 40   | 242                                                                                 | 91   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 469    | 559  | 167    | 387  | 599    | 86   | 333    | 0 | 0 | 171  | 0 | 0 |
| Stage 1              | 368    | 368  | -      | 186  | 186    | -    | -      | - | - | -    | - | - |
| Stage 2              | 101    | 191  | -      | 201  | 413    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 477    | 436  | 848    | 546  | 414    | 956  | 1223   | - | - | 1404 | - | - |
| Stage 1              | 624    | 620  | -      | 798  | 745    | -    | -      | - | - | -    | - | - |
| Stage 2              | 894    | 741  | -      | 782  | 592    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 450    | 417  | 848    | 524  | 396    | 956  | 1223   | - | - | 1404 | - | - |
| Mov Cap-2 Maneuver   | 450    | 417  | -      | 524  | 396    | -    | -      | - | - | -    | - | - |
| Stage 1              | 618    | 598  | -      | 791  | 738    | -    | -      | - | - | -    | - | - |
| Stage 2              | 865    | 734  | -      | 750  | 571    | -    | -      | - | - | -    | - | - |

| Approach             | EB   |  | WB  |  | NB  |  | SB  |  |
|----------------------|------|--|-----|--|-----|--|-----|--|
| HCM Control Delay, s | 13.7 |  | 9.5 |  | 0.4 |  | 0.9 |  |
| HCM LOS              | B    |  | A   |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1  | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------------|-------|-----|-----|
| Capacity (veh/h)      | 1223  | -   | -   | 471 825     | 1404  | -   | -   |
| HCM Lane V/C Ratio    | 0.008 | -   | -   | 0.122 0.034 | 0.029 | -   | -   |
| HCM Control Delay (s) | 8     | 0   | -   | 13.7 9.5    | 7.6   | 0.1 | -   |
| HCM Lane LOS          | A     | A   | -   | B A         | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0.4 0.1     | 0.1   | -   | -   |

| Intersection             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.1                                                                               |      |      |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR  | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |      |      |  |  |      |
| Traffic Vol, veh/h       | 57                                                                                | 8    | 3    | 147                                                                               | 84                                                                                | 19   |
| Future Vol, veh/h        | 57                                                                                | 8    | 3    | 147                                                                               | 84                                                                                | 19   |
| 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                | 62                                                                                | 9    | 3    | 160                                                                               | 91                                                                                | 21   |

| Major/Minor          | Minor2 | Major1 |      | Major2 |   |   |
|----------------------|--------|--------|------|--------|---|---|
| Conflicting Flow All | 188    | 56     | 112  | 0      | - | 0 |
| Stage 1              | 102    | -      | -    | -      | - | - |
| Stage 2              | 86     | -      | -    | -      | - | - |
| 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   | 783    | 999    | 1475 | -      | - | - |
| Stage 1              | 911    | -      | -    | -      | - | - |
| Stage 2              | 927    | -      | -    | -      | - | - |
| Platoon blocked, %   |        |        |      | -      | - | - |
| Mov Cap-1 Maneuver   | 781    | 999    | 1475 | -      | - | - |
| Mov Cap-2 Maneuver   | 781    | -      | -    | -      | - | - |
| Stage 1              | 909    | -      | -    | -      | - | - |
| Stage 2              | 927    | -      | -    | -      | - | - |

| Approach             | EB  | NB  | SB |
|----------------------|-----|-----|----|
| HCM Control Delay, s | 9.9 | 0.1 | 0  |
| HCM LOS              | A   |     |    |

| Minor Lane/Major Mvmt | NBL   | NBT | EBLn1 | SBT | SBR |
|-----------------------|-------|-----|-------|-----|-----|
| Capacity (veh/h)      | 1475  | -   | 803   | -   | -   |
| HCM Lane V/C Ratio    | 0.002 | -   | 0.088 | -   | -   |
| HCM Control Delay (s) | 7.4   | 0   | 9.9   | -   | -   |
| HCM Lane LOS          | A     | A   | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | 0.3   | -   | -   |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.3                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 38                                                                                | 5      | 9     | 129                                                                               | 169                                                                               | 65   |
| Future Vol, veh/h        | 38                                                                                | 5      | 9     | 129                                                                               | 169                                                                               | 65   |
| 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                | 41                                                                                | 5      | 10    | 140                                                                               | 184                                                                               | 71   |
| Major/Minor              | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All     | 310                                                                               | 128    | 255   | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                  | 220                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 90                                                                                | -      | -     | -                                                                                 | -                                                                                 | -    |
| 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       | 658                                                                               | 898    | 1307  | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 795                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 923                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %       |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver       | 653                                                                               | 898    | 1307  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver       | 653                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 789                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 923                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Approach                 | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 10.7                                                                              | 0.5    |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                  | B                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)         | 1307                                                                              | -      | 674   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.007                                                                             | -      | 0.069 | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s)    | 7.8                                                                               | 0      | 10.7  | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | A      | B     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | 0.2   | -                                                                                 | -                                                                                 |      |

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 2.5    |        |       |        |      |      |
| Movement                 | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations      | YY     |        |       | ↑↑     | ↑↑   |      |
| Traffic Vol, veh/h       | 57     | 8      | 3     | 93     | 73   | 19   |
| Future Vol, veh/h        | 57     | 8      | 3     | 93     | 73   | 19   |
| 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                | 62     | 9      | 3     | 101    | 79   | 21   |
| Major/Minor              | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All     | 147    | 50     | 100   | 0      | -    | 0    |
| Stage 1                  | 90     | -      | -     | -      | -    | -    |
| Stage 2                  | 57     | -      | -     | -      | -    | -    |
| 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       | 830    | 1008   | 1490  | -      | -    | -    |
| Stage 1                  | 923    | -      | -     | -      | -    | -    |
| Stage 2                  | 959    | -      | -     | -      | -    | -    |
| Platoon blocked, %       |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver       | 828    | 1008   | 1490  | -      | -    | -    |
| Mov Cap-2 Maneuver       | 828    | -      | -     | -      | -    | -    |
| Stage 1                  | 921    | -      | -     | -      | -    | -    |
| Stage 2                  | 959    | -      | -     | -      | -    | -    |
| Approach                 | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s     | 9.6    | 0.2    |       | 0      |      |      |
| HCM LOS                  | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)         | 1490   | -      | 847   | -      | -    |      |
| HCM Lane V/C Ratio       | 0.002  | -      | 0.083 | -      | -    |      |
| HCM Control Delay (s)    | 7.4    | -      | 9.6   | -      | -    |      |
| HCM Lane LOS             | A      | -      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)    | 0      | -      | 0.3   | -      | -    |      |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.5                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 38                                                                                | 5      | 9     | 100                                                                               | 110                                                                               | 65   |
| Future Vol, veh/h        | 38                                                                                | 5      | 9     | 100                                                                               | 110                                                                               | 65   |
| 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                | 41                                                                                | 5      | 10    | 109                                                                               | 120                                                                               | 71   |
| Major/Minor              | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All     | 231                                                                               | 96     | 191   | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                  | 156                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 75                                                                                | -      | -     | -                                                                                 | -                                                                                 | -    |
| 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       | 737                                                                               | 942    | 1380  | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 856                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 939                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %       |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver       | 731                                                                               | 942    | 1380  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver       | 731                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 849                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 939                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Approach                 | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 10.1                                                                              | 0.6    |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                  | B                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)         | 1380                                                                              | -      | 751   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.007                                                                             | -      | 0.062 | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s)    | 7.6                                                                               | -      | 10.1  | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | -      | B     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | 0.2   | -                                                                                 | -                                                                                 |      |

| Intersection                |       |       |       |       |       |       |       |       |  |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh   | 3.4   |       |       |       |       |       |       |       |  |
| Intersection LOS            | A     |       |       |       |       |       |       |       |  |
| Approach                    | EB    |       | WB    |       | NB    |       | SB    |       |  |
| Entry Lanes                 | 2     |       | 2     |       | 2     |       | 2     |       |  |
| Conflicting Circle Lanes    | 2     |       | 2     |       | 2     |       | 2     |       |  |
| Adj Approach Flow, veh/h    | 79    |       | 0     |       | 251   |       | 88    |       |  |
| Demand Flow Rate, veh/h     | 80    |       | 0     |       | 256   |       | 90    |       |  |
| Vehicles Circulating, veh/h | 27    |       | 277   |       | 21    |       | 171   |       |  |
| Vehicles Exiting, veh/h     | 234   |       | 0     |       | 86    |       | 106   |       |  |
| Ped Vol Crossing Leg, #/h   | 0     |       | 0     |       | 0     |       | 0     |       |  |
| Ped Cap Adj                 | 1.000 |       | 1.000 |       | 1.000 |       | 1.000 |       |  |
| Approach Delay, s/veh       | 2.9   |       | 0.0   |       | 3.6   |       | 3.4   |       |  |
| Approach LOS                | A     |       | -     |       | A     |       | A     |       |  |
| Lane                        | Left  | Right | Left  | Right | Left  | Right | Left  | Right |  |
| Designated Moves            | L     | TR    | L     | TR    | LT    | TR    | LT    | TR    |  |
| Assumed Moves               | L     | TR    | L     | TR    | L     | TR    | LT    | R     |  |
| RT Channelized              |       |       |       |       |       |       |       |       |  |
| Lane Util                   | 0.262 | 0.738 | 0.500 | 0.500 | 0.668 | 0.332 | 0.300 | 0.700 |  |
| Follow-Up Headway, s        | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 |  |
| Critical Headway, s         | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 |  |
| Entry Flow, veh/h           | 21    | 59    | 0     | 0     | 171   | 85    | 27    | 63    |  |
| Cap Entry Lane, veh/h       | 1317  | 1388  | 1046  | 1122  | 1324  | 1395  | 1153  | 1228  |  |
| Entry HV Adj Factor         | 1.000 | 0.983 | 1.000 | 1.000 | 0.982 | 0.980 | 0.980 | 0.984 |  |
| Flow Entry, veh/h           | 21    | 58    | 0     | 0     | 168   | 83    | 26    | 62    |  |
| Cap Entry, veh/h            | 1317  | 1364  | 1046  | 1122  | 1301  | 1368  | 1131  | 1208  |  |
| V/C Ratio                   | 0.016 | 0.043 | 0.000 | 0.000 | 0.129 | 0.061 | 0.023 | 0.051 |  |
| Control Delay, s/veh        | 2.9   | 3.0   | 3.4   | 3.2   | 3.8   | 3.1   | 3.4   | 3.4   |  |
| LOS                         | A     | A     | A     | A     | A     | A     | A     | A     |  |
| 95th %tile Queue, veh       | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |  |

| Intersection                |       |       |       |       |       |       |       |       |  |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh   | 3.6   |       |       |       |       |       |       |       |  |
| Intersection LOS            | A     |       |       |       |       |       |       |       |  |
| Approach                    | EB    |       | WB    |       | NB    |       | SB    |       |  |
| Entry Lanes                 | 2     |       | 2     |       | 2     |       | 2     |       |  |
| Conflicting Circle Lanes    | 2     |       | 2     |       | 2     |       | 2     |       |  |
| Adj Approach Flow, veh/h    | 262   |       | 0     |       | 160   |       | 125   |       |  |
| Demand Flow Rate, veh/h     | 267   |       | 0     |       | 163   |       | 128   |       |  |
| Vehicles Circulating, veh/h | 86    |       | 235   |       | 72    |       | 113   |       |  |
| Vehicles Exiting, veh/h     | 155   |       | 0     |       | 281   |       | 122   |       |  |
| Ped Vol Crossing Leg, #/h   | 0     |       | 0     |       | 0     |       | 0     |       |  |
| Ped Cap Adj                 | 1.000 |       | 1.000 |       | 1.000 |       | 1.000 |       |  |
| Approach Delay, s/veh       | 3.8   |       | 0.0   |       | 3.5   |       | 3.3   |       |  |
| Approach LOS                | A     |       | -     |       | A     |       | A     |       |  |
| Lane                        | Left  | Right | Left  | Right | Left  | Right | Left  | Right |  |
| Designated Moves            | L     | TR    | L     | TR    | LT    | TR    | LT    | TR    |  |
| Assumed Moves               | L     | TR    | L     | TR    | L     | TR    | LT    | TR    |  |
| RT Channelized              |       |       |       |       |       |       |       |       |  |
| Lane Util                   | 0.270 | 0.730 | 0.500 | 0.500 | 0.693 | 0.307 | 0.469 | 0.531 |  |
| Follow-Up Headway, s        | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 | 2.535 |  |
| Critical Headway, s         | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 | 4.328 |  |
| Entry Flow, veh/h           | 72    | 195   | 0     | 0     | 113   | 50    | 60    | 68    |  |
| Cap Entry Lane, veh/h       | 1247  | 1320  | 1087  | 1163  | 1263  | 1336  | 1217  | 1290  |  |
| Entry HV Adj Factor         | 0.986 | 0.979 | 1.000 | 1.000 | 0.982 | 0.980 | 0.982 | 0.977 |  |
| Flow Entry, veh/h           | 71    | 191   | 0     | 0     | 111   | 49    | 59    | 66    |  |
| Cap Entry, veh/h            | 1230  | 1293  | 1087  | 1163  | 1241  | 1310  | 1194  | 1260  |  |
| V/C Ratio                   | 0.058 | 0.148 | 0.000 | 0.000 | 0.089 | 0.037 | 0.049 | 0.053 |  |
| Control Delay, s/veh        | 3.4   | 4.0   | 3.3   | 3.1   | 3.6   | 3.0   | 3.4   | 3.3   |  |
| LOS                         | A     | A     | A     | A     | A     | A     | A     | A     |  |
| 95th %tile Queue, veh       | 0     | 1     | 0     | 0     | 0     | 0     | 0     | 0     |  |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.5                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 33                                                                                | 16     | 6     | 198                                                                               | 66                                                                                | 11   |
| Future Vol, veh/h        | 33                                                                                | 16     | 6     | 198                                                                               | 66                                                                                | 11   |
| 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                | 36                                                                                | 17     | 7     | 215                                                                               | 72                                                                                | 12   |
| Major/Minor              | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All     | 200                                                                               | 42     | 84    | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                  | 78                                                                                | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 122                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| 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       | 770                                                                               | 1019   | 1511  | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 936                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 890                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %       |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver       | 766                                                                               | 1019   | 1511  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver       | 766                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 931                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 890                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Approach                 | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 9.6                                                                               | 0.2    |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                  | A                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)         | 1511                                                                              | -      | 834   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.004                                                                             | -      | 0.064 | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s)    | 7.4                                                                               | 0      | 9.6   | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | A      | A     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | 0.2   | -                                                                                 | -                                                                                 |      |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.2                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 21                                                                                | 11     | 19    | 125                                                                               | 217                                                                               | 37   |
| Future Vol, veh/h        | 21                                                                                | 11     | 19    | 125                                                                               | 217                                                                               | 37   |
| 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                | 23                                                                                | 12     | 21    | 136                                                                               | 236                                                                               | 40   |
| Major/Minor              | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All     | 366                                                                               | 138    | 276   | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                  | 256                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 110                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| 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       | 607                                                                               | 885    | 1284  | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 763                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 902                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %       |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver       | 596                                                                               | 885    | 1284  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver       | 596                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 749                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 902                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Approach                 | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 10.7                                                                              | 1.1    |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                  | B                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)         | 1284                                                                              | -      | 671   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.016                                                                             | -      | 0.052 | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s)    | 7.8                                                                               | 0.1    | 10.7  | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | A      | B     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | 0.2   | -                                                                                 | -                                                                                 |      |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.7                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 81                                                                                | 33     | 11    | 122                                                                               | 54                                                                                | 28   |
| Future Vol, veh/h        | 81                                                                                | 33     | 11    | 122                                                                               | 54                                                                                | 28   |
| 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                | 88                                                                                | 36     | 12    | 133                                                                               | 59                                                                                | 30   |
| Major/Minor              | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All     | 165                                                                               | 45     | 89    | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                  | 74                                                                                | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 91                                                                                | -      | -     | -                                                                                 | -                                                                                 | -    |
| 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       | 809                                                                               | 1015   | 1504  | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 940                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 922                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %       |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver       | 802                                                                               | 1015   | 1504  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver       | 802                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 932                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 922                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Approach                 | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 9.9                                                                               | 0.6    |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                  | A                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)         | 1504                                                                              | -      | 854   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.008                                                                             | -      | 0.145 | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s)    | 7.4                                                                               | 0      | 9.9   | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | A      | A     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0                                                                                 | -      | 0.5   | -                                                                                 | -                                                                                 |      |

| Intersection             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.6                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                 | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations      |  |        |       |  |  |      |
| Traffic Vol, veh/h       | 54                                                                                | 21     | 37    | 90                                                                                | 135                                                                               | 93   |
| Future Vol, veh/h        | 54                                                                                | 21     | 37    | 90                                                                                | 135                                                                               | 93   |
| 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                | 59                                                                                | 23     | 40    | 98                                                                                | 147                                                                               | 101  |
| Major/Minor              | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All     | 327                                                                               | 124    | 248   | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                  | 198                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 129                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| 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       | 642                                                                               | 904    | 1315  | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 816                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 883                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %       |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver       | 621                                                                               | 904    | 1315  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver       | 621                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                  | 790                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                  | 883                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Approach                 | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s     | 11                                                                                | 2.4    |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                  | B                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt    | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)         | 1315                                                                              | -      | 681   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio       | 0.031                                                                             | -      | 0.12  | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s)    | 7.8                                                                               | 0.1    | 11    | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS             | A                                                                                 | A      | B     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0.1                                                                               | -      | 0.4   | -                                                                                 | -                                                                                 |      |

| Intersection                |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 3.1   |       |       |       |       |
| Intersection LOS            | A     |       |       |       |       |
| Approach                    | WB    |       | NB    |       | SB    |
| Entry Lanes                 | 2     |       | 2     |       | 2     |
| Conflicting Circle Lanes    | 2     |       | 2     |       | 2     |
| Adj Approach Flow, veh/h    | 27    |       | 141   |       | 41    |
| Demand Flow Rate, veh/h     | 28    |       | 144   |       | 42    |
| Vehicles Circulating, veh/h | 130   |       | 0     |       | 28    |
| Vehicles Exiting, veh/h     | 14    |       | 70    |       | 130   |
| Ped Vol Crossing Leg, #/h   | 0     |       | 0     |       | 0     |
| Ped Cap Adj                 | 1.000 |       | 1.000 |       | 1.000 |
| Approach Delay, s/veh       | 3.1   |       | 3.0   |       | 3.0   |
| Approach LOS                | A     |       | A     |       | A     |
| Lane                        | Left  | Right | Left  | Right | Left  |
| Designated Moves            | L     | LTR   | LT    | TR    | L     |
| Assumed Moves               | L     | LTR   | LT    | TR    | L     |
| RT Channelized              |       |       |       |       |       |
| Lane Util                   | 0.536 | 0.464 | 0.472 | 0.528 | 1.000 |
| Follow-Up Headway, s        | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 |
| Critical Headway, s         | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 |
| Entry Flow, veh/h           | 15    | 13    | 68    | 76    | 42    |
| Cap Entry Lane, veh/h       | 1198  | 1272  | 1350  | 1420  | 1316  |
| Entry HV Adj Factor         | 0.954 | 0.976 | 0.978 | 0.986 | 0.980 |
| Flow Entry, veh/h           | 14    | 13    | 66    | 75    | 41    |
| Cap Entry, veh/h            | 1143  | 1241  | 1320  | 1401  | 1290  |
| V/C Ratio                   | 0.013 | 0.010 | 0.050 | 0.054 | 0.032 |
| Control Delay, s/veh        | 3.3   | 3.0   | 3.1   | 3.0   | 3.0   |
| LOS                         | A     | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 0     | 0     | 0     |

| Intersection                |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 3.3   |       |       |       |       |
| Intersection LOS            | A     |       |       |       |       |
| Approach                    | WB    |       | NB    |       | SB    |
| Entry Lanes                 | 2     |       | 2     |       | 2     |
| Conflicting Circle Lanes    | 2     |       | 2     |       | 2     |
| Adj Approach Flow, veh/h    | 18    |       | 108   |       | 135   |
| Demand Flow Rate, veh/h     | 18    |       | 111   |       | 138   |
| Vehicles Circulating, veh/h | 80    |       | 0     |       | 18    |
| Vehicles Exiting, veh/h     | 31    |       | 156   |       | 80    |
| Ped Vol Crossing Leg, #/h   | 0     |       | 0     |       | 0     |
| Ped Cap Adj                 | 1.000 |       | 1.000 |       | 1.000 |
| Approach Delay, s/veh       | 2.9   |       | 3.0   |       | 3.6   |
| Approach LOS                | A     |       | A     |       | A     |
| Lane                        | Left  | Right | Left  | Right | Left  |
| Designated Moves            | L     | LTR   | LT    | TR    | L     |
| Assumed Moves               | L     | LTR   | LT    | TR    | L     |
| RT Channelized              |       |       |       |       |       |
| Lane Util                   | 0.556 | 0.444 | 0.468 | 0.532 | 1.000 |
| Follow-Up Headway, s        | 2.667 | 2.535 | 2.667 | 2.535 | 2.667 |
| Critical Headway, s         | 4.645 | 4.328 | 4.645 | 4.328 | 4.645 |
| Entry Flow, veh/h           | 10    | 8     | 52    | 59    | 138   |
| Cap Entry Lane, veh/h       | 1254  | 1327  | 1350  | 1420  | 1328  |
| Entry HV Adj Factor         | 0.954 | 1.058 | 0.980 | 0.974 | 0.980 |
| Flow Entry, veh/h           | 10    | 8     | 51    | 57    | 135   |
| Cap Entry, veh/h            | 1196  | 1403  | 1323  | 1383  | 1302  |
| V/C Ratio                   | 0.008 | 0.006 | 0.039 | 0.042 | 0.104 |
| Control Delay, s/veh        | 3.1   | 2.6   | 3.0   | 2.9   | 3.6   |
| LOS                         | A     | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 0     | 0     | 0     |

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.9    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |      |  |      |
| Traffic Vol, veh/h       | 16     | 0                                                                                 | 41     | 24         | 0                                                                                 | 8     | 14     | 122                                                                               | 8    | 3    | 104                                                                                 | 6    |
| Future Vol, veh/h        | 16     | 0                                                                                 | 41     | 24         | 0                                                                                 | 8     | 14     | 122                                                                               | 8    | 3    | 104                                                                                 | 6    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92     | 92                                                                                | 92     | 92         | 92                                                                                | 92    | 92     | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2      | 2          | 2                                                                                 | 2     | 32     | 32                                                                                | 32   | 71   | 71                                                                                  | 71   |
| Mvmt Flow                | 17     | 0                                                                                 | 45     | 26         | 0                                                                                 | 9     | 15     | 133                                                                               | 9    | 3    | 113                                                                                 | 7    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |      |                                                                                     |      |
| Conflicting Flow All     | 220    | 295                                                                               | 60     | 231        | 294                                                                               | 71    | 120    | 0                                                                                 | 0    | 142  | 0                                                                                   | 0    |
| Stage 1                  | 123    | 123                                                                               | -      | 168        | 168                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 97     | 172                                                                               | -      | 63         | 126                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy            | 7.54   | 6.54                                                                              | 6.94   | 7.54       | 6.54                                                                              | 6.94  | 4.74   | -                                                                                 | -    | 5.52 | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Follow-up Hdwy           | 3.52   | 4.02                                                                              | 3.32   | 3.52       | 4.02                                                                              | 3.32  | 2.52   | -                                                                                 | -    | 2.91 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 717    | 615                                                                               | 993    | 704        | 616                                                                               | 977   | 1272   | -                                                                                 | -    | 1053 | -                                                                                   | -    |
| Stage 1                  | 868    | 793                                                                               | -      | 817        | 758                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 899    | 755                                                                               | -      | 941        | 791                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 702    | 605                                                                               | 993    | 664        | 606                                                                               | 977   | 1272   | -                                                                                 | -    | 1053 | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 702    | 605                                                                               | -      | 664        | 606                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 1                  | 857    | 791                                                                               | -      | 806        | 748                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 879    | 745                                                                               | -      | 896        | 789                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |      |                                                                                     |      |
| HCM Control Delay, s     | 9.4    |                                                                                   | 10.2   |            | 0.8                                                                               |       | 0.2    |                                                                                   |      |      |                                                                                     |      |
| HCM LOS                  | A      |                                                                                   | B      |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |      |                                                                                     |      |
| Capacity (veh/h)         | 1272   | -                                                                                 | -      | 889        | 722                                                                               | 1053  | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.012  | -                                                                                 | -      | 0.07       | 0.048                                                                             | 0.003 | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Control Delay (s)    | 7.9    | 0                                                                                 | -      | 9.4        | 10.2                                                                              | 8.4   | 0      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -      | A          | B                                                                                 | A     | A      | -                                                                                 |      |      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0.2        | 0.2                                                                               | 0     | -      | -                                                                                 |      |      |                                                                                     |      |

| Intersection             |        |      |        |            |        |       |        |      |      |      |      |      |
|--------------------------|--------|------|--------|------------|--------|-------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 2.3    |      |        |            |        |       |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL        | WBT    | WBR   | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |            | ↕      |       |        | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 11     | 0    | 27     | 16         | 0      | 5     | 46     | 139  | 28   | 9    | 145  | 19   |
| Future Vol, veh/h        | 11     | 0    | 27     | 16         | 0      | 5     | 46     | 139  | 28   | 9    | 145  | 19   |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -          | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -    | -      | -          | -      | -     | -      | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -      | 0    | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Grade, %                 | -      | 0    | -      | -          | 0      | -     | -      | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 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                | 12     | 0    | 29     | 17         | 0      | 5     | 50     | 151  | 30   | 10   | 158  | 21   |
|                          |        |      |        |            |        |       |        |      |      |      |      |      |
| Major/Minor              | Minor2 |      | Minor1 |            | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 365    | 470  | 90     | 365        | 465    | 91    | 179    | 0    | 0    | 181  | 0    | 0    |
| Stage 1                  | 189    | 189  | -      | 266        | 266    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 176    | 281  | -      | 99         | 199    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 7.54   | 6.54 | 6.94   | 7.54       | 6.54   | 6.94  | 4.14   | -    | -    | 4.14 | -    | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54 | -      | 6.54       | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54 | -      | 6.54       | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.52   | 4.02 | 3.32   | 3.52       | 4.02   | 3.32  | 2.22   | -    | -    | 2.22 | -    | -    |
| Pot Cap-1 Maneuver       | 566    | 490  | 950    | 566        | 493    | 949   | 1394   | -    | -    | 1392 | -    | -    |
| Stage 1                  | 795    | 743  | -      | 716        | 687    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 809    | 677  | -      | 896        | 735    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |            |        |       |        | -    | -    |      | -    | -    |
| Mov Cap-1 Maneuver       | 542    | 466  | 950    | 529        | 469    | 949   | 1394   | -    | -    | 1392 | -    | -    |
| Mov Cap-2 Maneuver       | 542    | 466  | -      | 529        | 469    | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 763    | 737  | -      | 687        | 660    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 772    | 650  | -      | 861        | 729    | -     | -      | -    | -    | -    | -    | -    |
|                          |        |      |        |            |        |       |        |      |      |      |      |      |
|                          |        |      |        |            |        |       |        |      |      |      |      |      |
| Approach                 | EB     |      | WB     |            | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 9.9    |      | 11.3   |            | 1.7    |       | 0.4    |      |      |      |      |      |
| HCM LOS                  | A      |      | B      |            |        |       |        |      |      |      |      |      |
|                          |        |      |        |            |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |      |      |      |
| Capacity (veh/h)         | 1394   | -    | -      | 780        | 591    | 1392  | -      | -    |      |      |      |      |
| HCM Lane V/C Ratio       | 0.036  | -    | -      | 0.053      | 0.039  | 0.007 | -      | -    |      |      |      |      |
| HCM Control Delay (s)    | 7.7    | 0.1  | -      | 9.9        | 11.3   | 7.6   | 0      | -    |      |      |      |      |
| HCM Lane LOS             | A      | A    | -      | A          | B      | A     | A      | -    |      |      |      |      |
| HCM 95th %tile O(veh)    | 0.1    | -    | -      | 0.2        | 0.1    | 0     | -      | -    |      |      |      |      |

| Intersection                |       |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 3.9   |       |       |       |       |       |
| Intersection LOS            | A     |       |       |       |       |       |
| Approach                    | EB    | WB    | NB    | SB    |       |       |
| Entry Lanes                 | 1     | 1     | 2     | 2     |       |       |
| Conflicting Circle Lanes    | 1     | 1     | 1     | 1     |       |       |
| Adj Approach Flow, veh/h    | 124   | 58    | 166   | 183   |       |       |
| Demand Flow Rate, veh/h     | 133   | 59    | 171   | 186   |       |       |
| Vehicles Circulating, veh/h | 223   | 184   | 32    | 81    |       |       |
| Vehicles Exiting, veh/h     | 44    | 19    | 324   | 162   |       |       |
| Ped Vol Crossing Leg, #/h   | 0     | 0     | 0     | 0     |       |       |
| Ped Cap Adj                 | 1.000 | 1.000 | 1.000 | 1.000 |       |       |
| Approach Delay, s/veh       | 4.6   | 3.6   | 3.5   | 3.8   |       |       |
| Approach LOS                | A     | A     | A     | A     |       |       |
| Lane                        | Left  | Left  | Left  | Right | Left  | Right |
| Designated Moves            | LTR   | LTR   | LT    | R     | LT    | R     |
| Assumed Moves               | LTR   | LTR   | LT    | R     | LT    | R     |
| RT Channelized              |       |       |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 0.912 | 0.088 | 0.952 | 0.048 |
| Follow-Up Headway, s        | 2.609 | 2.609 | 2.535 | 2.535 | 2.535 | 2.535 |
| Critical Headway, s         | 4.976 | 4.976 | 4.544 | 4.544 | 4.544 | 4.544 |
| Entry Flow, veh/h           | 133   | 59    | 156   | 15    | 177   | 9     |
| Cap Entry Lane, veh/h       | 1099  | 1144  | 1379  | 1379  | 1319  | 1319  |
| Entry HV Adj Factor         | 0.932 | 0.983 | 0.971 | 1.000 | 0.981 | 1.000 |
| Flow Entry, veh/h           | 124   | 58    | 151   | 15    | 174   | 9     |
| Cap Entry, veh/h            | 1025  | 1124  | 1339  | 1379  | 1294  | 1319  |
| V/C Ratio                   | 0.121 | 0.052 | 0.113 | 0.011 | 0.134 | 0.007 |
| Control Delay, s/veh        | 4.6   | 3.6   | 3.6   | 2.7   | 3.9   | 2.8   |
| LOS                         | A     | A     | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 0     | 0     | 0     | 0     |

| Intersection                |       |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Intersection Delay, s/veh   | 4.2   |       |       |       |       |       |
| Intersection LOS            | A     |       |       |       |       |       |
| Approach                    | EB    | WB    | NB    |       | SB    |       |
| Entry Lanes                 | 1     | 1     | 2     |       | 2     |       |
| Conflicting Circle Lanes    | 1     | 1     | 1     |       | 1     |       |
| Adj Approach Flow, veh/h    | 81    | 38    | 366   |       | 204   |       |
| Demand Flow Rate, veh/h     | 85    | 39    | 373   |       | 210   |       |
| Vehicles Circulating, veh/h | 209   | 340   | 33    |       | 143   |       |
| Vehicles Exiting, veh/h     | 144   | 66    | 261   |       | 236   |       |
| Ped Vol Crossing Leg, #/h   | 0     | 0     | 0     |       | 0     |       |
| Ped Cap Adj                 | 1.000 | 1.000 | 1.000 |       | 1.000 |       |
| Approach Delay, s/veh       | 4.0   | 4.1   | 4.4   |       | 4.0   |       |
| Approach LOS                | A     | A     | A     |       | A     |       |
| Lane                        | Left  | Left  | Left  | Right | Left  | Right |
| Designated Moves            | LTR   | LTR   | LT    | R     | LT    | R     |
| Assumed Moves               | LTR   | LTR   | LT    | R     | LT    | R     |
| RT Channelized              |       |       |       |       |       |       |
| Lane Util                   | 1.000 | 1.000 | 0.863 | 0.137 | 0.852 | 0.148 |
| Follow-Up Headway, s        | 2.609 | 2.609 | 2.535 | 2.535 | 2.535 | 2.535 |
| Critical Headway, s         | 4.976 | 4.976 | 4.544 | 4.544 | 4.544 | 4.544 |
| Entry Flow, veh/h           | 85    | 39    | 322   | 51    | 179   | 31    |
| Cap Entry Lane, veh/h       | 1115  | 976   | 1378  | 1378  | 1247  | 1247  |
| Entry HV Adj Factor         | 0.953 | 0.974 | 0.981 | 0.980 | 0.973 | 0.968 |
| Flow Entry, veh/h           | 81    | 38    | 316   | 50    | 174   | 30    |
| Cap Entry, veh/h            | 1062  | 951   | 1352  | 1351  | 1214  | 1207  |
| V/C Ratio                   | 0.076 | 0.040 | 0.234 | 0.037 | 0.144 | 0.025 |
| Control Delay, s/veh        | 4.0   | 4.1   | 4.6   | 3.0   | 4.2   | 3.2   |
| LOS                         | A     | A     | A     | A     | A     | A     |
| 95th %tile Queue, veh       | 0     | 0     | 1     | 0     | 1     | 0     |

HCM 6th TWSC  
13: Estancia & Parcel 25B/24B/Parcel 26S

Upper Petroglyphs TIA  
2030 Build Estancia Blvd AM Intersections

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.8    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |      |  |      |
| Traffic Vol, veh/h       | 8      | 0                                                                                 | 49     | 16         | 0                                                                                 | 4     | 17     | 140                                                                               | 6    | 1    | 282                                                                                 | 3    |
| Future Vol, veh/h        | 8      | 0                                                                                 | 49     | 16         | 0                                                                                 | 4     | 17     | 140                                                                               | 6    | 1    | 282                                                                                 | 3    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| 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      | 5          | 5                                                                                 | 5     | 4      | 4                                                                                 | 4    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 9      | 0                                                                                 | 53     | 17         | 0                                                                                 | 4     | 18     | 152                                                                               | 7    | 1    | 307                                                                                 | 3    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |      |                                                                                     |      |
| Conflicting Flow All     | 423    | 506                                                                               | 155    | 348        | 504                                                                               | 80    | 310    | 0                                                                                 | 0    | 159  | 0                                                                                   | 0    |
| Stage 1                  | 311    | 311                                                                               | -      | 192        | 192                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 112    | 195                                                                               | -      | 156        | 312                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy            | 7.54   | 6.54                                                                              | 6.94   | 7.6        | 6.6                                                                               | 7     | 4.18   | -                                                                                 | -    | 4.14 | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54                                                                              | -      | 6.6        | 5.6                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54                                                                              | -      | 6.6        | 5.6                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Follow-up Hdwy           | 3.52   | 4.02                                                                              | 3.32   | 3.55       | 4.05                                                                              | 3.35  | 2.24   | -                                                                                 | -    | 2.22 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 515    | 468                                                                               | 863    | 575        | 462                                                                               | 954   | 1233   | -                                                                                 | -    | 1418 | -                                                                                   | -    |
| Stage 1                  | 674    | 657                                                                               | -      | 783        | 733                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 881    | 738                                                                               | -      | 822        | 649                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 506    | 460                                                                               | 863    | 532        | 454                                                                               | 954   | 1233   | -                                                                                 | -    | 1418 | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 506    | 460                                                                               | -      | 532        | 454                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 1                  | 663    | 656                                                                               | -      | 770        | 721                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 863    | 726                                                                               | -      | 770        | 648                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |      |                                                                                     |      |
| HCM Control Delay, s     | 10     |                                                                                   | 11.4   |            | 0.9                                                                               |       | 0      |                                                                                   |      |      |                                                                                     |      |
| HCM LOS                  | B      |                                                                                   | B      |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |      |                                                                                     |      |
| Capacity (veh/h)         | 1233   | -                                                                                 | -      | 785        | 584                                                                               | 1418  | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.015  | -                                                                                 | -      | 0.079      | 0.037                                                                             | 0.001 | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Control Delay (s)    | 8      | 0.1                                                                               | -      | 10         | 11.4                                                                              | 7.5   | 0      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -      | B          | B                                                                                 | A     | A      | -                                                                                 |      |      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0.3        | 0.1                                                                               | 0     | -      | -                                                                                 |      |      |                                                                                     |      |

HCM 6th TWSC  
13: Estancia & Parcel 25B/24B/Parcel 26S

Upper Petroglyphs TIA  
2030 Build Estancia Blvd PM Intersections

| Intersection             |        |      |        |            |        |       |        |      |      |      |      |      |
|--------------------------|--------|------|--------|------------|--------|-------|--------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7    |      |        |            |        |       |        |      |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL        | WBT    | WBR   | NBL    | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |            | ↕      |       |        | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 5      | 0    | 32     | 11         | 0      | 3     | 56     | 330  | 19   | 5    | 218  | 9    |
| Future Vol, veh/h        | 5      | 0    | 32     | 11         | 0      | 3     | 56     | 330  | 19   | 5    | 218  | 9    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -          | -      | None  | -      | -    | None | -    | -    | None |
| Storage Length           | -      | -    | -      | -          | -      | -     | -      | -    | -    | -    | -    | -    |
| 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                | 5      | 0    | 35     | 12         | 0      | 3     | 61     | 359  | 21   | 5    | 237  | 10   |
| Major/Minor              | Minor2 |      | Minor1 |            | Major1 |       | Major2 |      |      |      |      |      |
| Conflicting Flow All     | 554    | 754  | 124    | 621        | 749    | 190   | 247    | 0    | 0    | 380  | 0    | 0    |
| Stage 1                  | 252    | 252  | -      | 492        | 492    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 302    | 502  | -      | 129        | 257    | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy            | 7.54   | 6.54 | 6.94   | 7.54       | 6.54   | 6.94  | 4.14   | -    | -    | 4.14 | -    | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54 | -      | 6.54       | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54 | -      | 6.54       | 5.54   | -     | -      | -    | -    | -    | -    | -    |
| Follow-up Hdwy           | 3.52   | 4.02 | 3.32   | 3.52       | 4.02   | 3.32  | 2.22   | -    | -    | 2.22 | -    | -    |
| Pot Cap-1 Maneuver       | 415    | 337  | 904    | 372        | 339    | 820   | 1316   | -    | -    | 1175 | -    | -    |
| Stage 1                  | 730    | 697  | -      | 527        | 546    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 682    | 540  | -      | 861        | 694    | -     | -      | -    | -    | -    | -    | -    |
| Platoon blocked, %       |        |      |        |            |        |       |        | -    | -    | -    | -    | -    |
| Mov Cap-1 Maneuver       | 393    | 315  | 904    | 340        | 317    | 820   | 1316   | -    | -    | 1175 | -    | -    |
| Mov Cap-2 Maneuver       | 393    | 315  | -      | 340        | 317    | -     | -      | -    | -    | -    | -    | -    |
| Stage 1                  | 687    | 694  | -      | 496        | 514    | -     | -      | -    | -    | -    | -    | -    |
| Stage 2                  | 639    | 508  | -      | 824        | 691    | -     | -      | -    | -    | -    | -    | -    |
| Approach                 | EB     |      | WB     |            | NB     |       | SB     |      |      |      |      |      |
| HCM Control Delay, s     | 9.9    |      | 14.6   |            | 1.3    |       | 0.2    |      |      |      |      |      |
| HCM LOS                  | A      |      | B      |            |        |       |        |      |      |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |      |      |      |
| Capacity (veh/h)         | 1316   | -    | -      | 769        | 389    | 1175  | -      | -    |      |      |      |      |
| HCM Lane V/C Ratio       | 0.046  | -    | -      | 0.052      | 0.039  | 0.005 | -      | -    |      |      |      |      |
| HCM Control Delay (s)    | 7.9    | 0.2  | -      | 9.9        | 14.6   | 8.1   | 0      | -    |      |      |      |      |
| HCM Lane LOS             | A      | A    | -      | A          | B      | A     | A      | -    |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.1    | -    | -      | 0.2        | 0.1    | 0     | -      | -    |      |      |      |      |

HCM 6th TWSC  
14: Estancia & Parcel 36A/Parcel 29A

Upper Petroglyphs TIA  
2030 Build Estancia Blvd AM Intersections

| Intersection             |        |      |        |            |       |        |      |      |        |      |      |      |
|--------------------------|--------|------|--------|------------|-------|--------|------|------|--------|------|------|------|
| Int Delay, s/veh         | 6      |      |        |            |       |        |      |      |        |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL        | WBT   | WBR    | NBL  | NBT  | NBR    | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |            | ↕     |        |      | ↕↕   |        |      | ↕↕   |      |
| Traffic Vol, veh/h       | 8      | 0    | 41     | 65         | 0     | 8      | 14   | 22   | 22     | 3    | 23   | 3    |
| Future Vol, veh/h        | 8      | 0    | 41     | 65         | 0     | 8      | 14   | 22   | 22     | 3    | 23   | 3    |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0          | 0     | 0      | 0    | 0    | 0      | 0    | 0    | 0    |
| Sign Control             | Stop   | Stop | Stop   | Stop       | Stop  | Stop   | Free | Free | Free   | Free | Free | Free |
| RT Channelized           | -      | -    | None   | -          | -     | None   | -    | -    | None   | -    | -    | None |
| Storage Length           | -      | -    | -      | -          | -     | -      | -    | -    | -      | -    | -    | -    |
| 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      | 5    | 5    | 5      | 2    | 2    | 2    |
| Mvmt Flow                | 9      | 0    | 45     | 71         | 0     | 9      | 15   | 24   | 24     | 3    | 25   | 3    |
|                          |        |      |        |            |       |        |      |      |        |      |      |      |
| Major/Minor              | Minor2 |      | Minor1 |            |       | Major1 |      |      | Major2 |      |      |      |
| Conflicting Flow All     | 75     | 111  | 14     | 85         | 100   | 24     | 28   | 0    | 0      | 48   | 0    | 0    |
| Stage 1                  | 33     | 33   | -      | 66         | 66    | -      | -    | -    | -      | -    | -    | -    |
| Stage 2                  | 42     | 78   | -      | 19         | 34    | -      | -    | -    | -      | -    | -    | -    |
| Critical Hdwy            | 7.54   | 6.54 | 6.94   | 7.54       | 6.54  | 6.94   | 4.2  | -    | -      | 4.14 | -    | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54 | -      | 6.54       | 5.54  | -      | -    | -    | -      | -    | -    | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54 | -      | 6.54       | 5.54  | -      | -    | -    | -      | -    | -    | -    |
| Follow-up Hdwy           | 3.52   | 4.02 | 3.32   | 3.52       | 4.02  | 3.32   | 2.25 | -    | -      | 2.22 | -    | -    |
| Pot Cap-1 Maneuver       | 906    | 778  | 1062   | 892        | 789   | 1047   | 1562 | -    | -      | 1557 | -    | -    |
| Stage 1                  | 979    | 867  | -      | 937        | 839   | -      | -    | -    | -      | -    | -    | -    |
| Stage 2                  | 967    | 829  | -      | 997        | 866   | -      | -    | -    | -      | -    | -    | -    |
| Platoon blocked, %       |        |      |        |            |       |        |      | -    | -      |      | -    | -    |
| Mov Cap-1 Maneuver       | 891    | 769  | 1062   | 847        | 780   | 1047   | 1562 | -    | -      | 1557 | -    | -    |
| Mov Cap-2 Maneuver       | 891    | 769  | -      | 847        | 780   | -      | -    | -    | -      | -    | -    | -    |
| Stage 1                  | 969    | 865  | -      | 928        | 831   | -      | -    | -    | -      | -    | -    | -    |
| Stage 2                  | 949    | 821  | -      | 953        | 864   | -      | -    | -    | -      | -    | -    | -    |
|                          |        |      |        |            |       |        |      |      |        |      |      |      |
|                          |        |      |        |            |       |        |      |      |        |      |      |      |
| Approach                 | EB     |      | WB     |            |       | NB     |      |      | SB     |      |      |      |
| HCM Control Delay, s     | 8.7    |      | 9.6    |            |       | 1.8    |      |      | 0.8    |      |      |      |
| HCM LOS                  | A      |      | A      |            |       |        |      |      |        |      |      |      |
|                          |        |      |        |            |       |        |      |      |        |      |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT  | NBR    | EBLn1WBLn1 | SBL   | SBT    | SBR  |      |        |      |      |      |
| Capacity (veh/h)         | 1562   | -    | -      | 1030       | 865   | 1557   | -    | -    |        |      |      |      |
| HCM Lane V/C Ratio       | 0.01   | -    | -      | 0.052      | 0.092 | 0.002  | -    | -    |        |      |      |      |
| HCM Control Delay (s)    | 7.3    | 0    | -      | 8.7        | 9.6   | 7.3    | 0    | -    |        |      |      |      |
| HCM Lane LOS             | A      | A    | -      | A          | A     | A      | A    | -    |        |      |      |      |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | 0.2        | 0.3   | 0      | -    | -    |        |      |      |      |

HCM 6th TWSC  
14: Estancia & Parcel 36A/Parcel 29A

Upper Petroglyphs TIA  
2030 Build Estancia Blvd PM Intersections

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4.2    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |      |  |      |
| Traffic Vol, veh/h       | 5      | 0                                                                                 | 27     | 43         | 0                                                                                 | 5     | 46     | 31                                                                                | 74   | 9    | 30                                                                                  | 9    |
| Future Vol, veh/h        | 5      | 0                                                                                 | 27     | 43         | 0                                                                                 | 5     | 46     | 31                                                                                | 74   | 9    | 30                                                                                  | 9    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| 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                | 5      | 0                                                                                 | 29     | 47         | 0                                                                                 | 5     | 50     | 34                                                                                | 80   | 10   | 33                                                                                  | 10   |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |      |                                                                                     |      |
| Conflicting Flow All     | 175    | 272                                                                               | 22     | 211        | 237                                                                               | 57    | 43     | 0                                                                                 | 0    | 114  | 0                                                                                   | 0    |
| Stage 1                  | 58     | 58                                                                                | -      | 174        | 174                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 117    | 214                                                                               | -      | 37         | 63                                                                                | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy            | 7.54   | 6.54                                                                              | 6.94   | 7.54       | 6.54                                                                              | 6.94  | 4.14   | -                                                                                 | -    | 4.14 | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Follow-up Hdwy           | 3.52   | 4.02                                                                              | 3.32   | 3.52       | 4.02                                                                              | 3.32  | 2.22   | -                                                                                 | -    | 2.22 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 771    | 634                                                                               | 1050   | 728        | 663                                                                               | 997   | 1564   | -                                                                                 | -    | 1473 | -                                                                                   | -    |
| Stage 1                  | 947    | 846                                                                               | -      | 811        | 754                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 875    | 724                                                                               | -      | 974        | 842                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 743    | 608                                                                               | 1050   | 686        | 636                                                                               | 997   | 1564   | -                                                                                 | -    | 1473 | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 743    | 608                                                                               | -      | 686        | 636                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 1                  | 915    | 840                                                                               | -      | 783        | 728                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 841    | 699                                                                               | -      | 940        | 836                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |      |                                                                                     |      |
| HCM Control Delay, s     | 8.8    |                                                                                   | 10.5   |            | 2.2                                                                               |       | 1.4    |                                                                                   |      |      |                                                                                     |      |
| HCM LOS                  | A      |                                                                                   | B      |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |      |                                                                                     |      |
| Capacity (veh/h)         | 1564   | -                                                                                 | -      | 986        | 709                                                                               | 1473  | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.032  | -                                                                                 | -      | 0.035      | 0.074                                                                             | 0.007 | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Control Delay (s)    | 7.4    | 0                                                                                 | -      | 8.8        | 10.5                                                                              | 7.5   | 0      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -      | A          | B                                                                                 | A     | A      | -                                                                                 |      |      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0.1    | -                                                                                 | -      | 0.1        | 0.2                                                                               | 0     | -      | -                                                                                 |      |      |                                                                                     |      |

| Intersection             |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4.4    |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL        | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |        |            |  |       |        |  |      |      |  |      |
| Traffic Vol, veh/h       | 4      | 0                                                                                 | 45     | 90         | 0                                                                                 | 8     | 15     | 46                                                                                | 31   | 3    | 125                                                                                 | 1    |
| Future Vol, veh/h        | 4      | 0                                                                                 | 45     | 90         | 0                                                                                 | 8     | 15     | 46                                                                                | 31   | 3    | 125                                                                                 | 1    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0      | 0          | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop   | Stop       | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None   | -          | -                                                                                 | None  | -      | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -      | -          | -                                                                                 | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -      | 0                                                                                 | -      | -          | 0                                                                                 | -     | -      | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92     | 92                                                                                | 92     | 92         | 92                                                                                | 92    | 92     | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2      | 2          | 2                                                                                 | 2     | 5      | 5                                                                                 | 5    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 4      | 0                                                                                 | 49     | 98         | 0                                                                                 | 9     | 16     | 50                                                                                | 34   | 3    | 136                                                                                 | 1    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   | Minor1 |            | Major1                                                                            |       | Major2 |                                                                                   |      |      |                                                                                     |      |
| Conflicting Flow All     | 200    | 259                                                                               | 69     | 173        | 242                                                                               | 42    | 137    | 0                                                                                 | 0    | 84   | 0                                                                                   | 0    |
| Stage 1                  | 143    | 143                                                                               | -      | 99         | 99                                                                                | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 57     | 116                                                                               | -      | 74         | 143                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy            | 7.54   | 6.54                                                                              | 6.94   | 7.54       | 6.54                                                                              | 6.94  | 4.2    | -                                                                                 | -    | 4.14 | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 6.54   | 5.54                                                                              | -      | 6.54       | 5.54                                                                              | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Follow-up Hdwy           | 3.52   | 4.02                                                                              | 3.32   | 3.52       | 4.02                                                                              | 3.32  | 2.25   | -                                                                                 | -    | 2.22 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 741    | 644                                                                               | 980    | 774        | 658                                                                               | 1019  | 1423   | -                                                                                 | -    | 1511 | -                                                                                   | -    |
| Stage 1                  | 845    | 778                                                                               | -      | 896        | 812                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 948    | 799                                                                               | -      | 927        | 778                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |        |            |                                                                                   |       |        | -                                                                                 | -    |      | -                                                                                   | -    |
| Mov Cap-1 Maneuver       | 727    | 635                                                                               | 980    | 728        | 649                                                                               | 1019  | 1423   | -                                                                                 | -    | 1511 | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 727    | 635                                                                               | -      | 728        | 649                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 1                  | 835    | 776                                                                               | -      | 885        | 802                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
| Stage 2                  | 929    | 789                                                                               | -      | 879        | 776                                                                               | -     | -      | -                                                                                 | -    | -    | -                                                                                   | -    |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Approach                 | EB     |                                                                                   | WB     |            | NB                                                                                |       | SB     |                                                                                   |      |      |                                                                                     |      |
| HCM Control Delay, s     | 9      |                                                                                   | 10.6   |            | 1.2                                                                               |       | 0.2    |                                                                                   |      |      |                                                                                     |      |
| HCM LOS                  | A      |                                                                                   | B      |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
|                          |        |                                                                                   |        |            |                                                                                   |       |        |                                                                                   |      |      |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR    | EBLn1WBLn1 | SBL                                                                               | SBT   | SBR    |                                                                                   |      |      |                                                                                     |      |
| Capacity (veh/h)         | 1423   | -                                                                                 | -      | 953        | 745                                                                               | 1511  | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.011  | -                                                                                 | -      | 0.056      | 0.143                                                                             | 0.002 | -      | -                                                                                 |      |      |                                                                                     |      |
| HCM Control Delay (s)    | 7.6    | 0                                                                                 | -      | 9          | 10.6                                                                              | 7.4   | 0      | -                                                                                 |      |      |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -      | A          | B                                                                                 | A     | A      | -                                                                                 |      |      |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -      | 0.2        | 0.5                                                                               | 0     | -      | -                                                                                 |      |      |                                                                                     |      |

| Intersection             |      |                                                                                   |      |      |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 3.2  |                                                                                   |      |      |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL  | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |      |  |      |      |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 3    | 0                                                                                 | 29   | 59   | 0                                                                                 | 5    | 51   | 143                                                                               | 102  | 9    | 86                                                                                  | 5    |
| Future Vol, veh/h        | 3    | 0                                                                                 | 29   | 59   | 0                                                                                 | 5    | 51   | 143                                                                               | 102  | 9    | 86                                                                                  | 5    |
| Conflicting Peds, #/hr   | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Stop | Stop                                                                              | Stop | Stop | Stop                                                                              | Stop | Free | Free                                                                              | Free | Free | Free                                                                                | Free |
| RT Channelized           | -    | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | -    | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92   | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 3    | 0                                                                                 | 32   | 64   | 0                                                                                 | 5    | 55   | 155                                                                               | 111  | 10   | 93                                                                                  | 5    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|
| Conflicting Flow All | 304    | 492  | 49     | 388  | 439    | 133  | 98     | 0 |
| Stage 1              | 116    | 116  | -      | 321  | 321    | -    | -      | - |
| Stage 2              | 188    | 376  | -      | 67   | 118    | -    | -      | - |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - |
| Pot Cap-1 Maneuver   | 625    | 476  | 1009   | 545  | 510    | 892  | 1493   | - |
| Stage 1              | 876    | 799  | -      | 665  | 650    | -    | -      | - |
| Stage 2              | 796    | 615  | -      | 936  | 797    | -    | -      | - |
| Platoon blocked, %   |        |      |        |      |        |      |        | - |
| Mov Cap-1 Maneuver   | 597    | 451  | 1009   | 507  | 483    | 892  | 1493   | - |
| Mov Cap-2 Maneuver   | 597    | 451  | -      | 507  | 483    | -    | -      | - |
| Stage 1              | 837    | 793  | -      | 636  | 621    | -    | -      | - |
| Stage 2              | 756    | 588  | -      | 900  | 791    | -    | -      | - |

| Approach             | EB  | WB   | NB  | SB  |
|----------------------|-----|------|-----|-----|
| HCM Control Delay, s | 8.9 | 12.9 | 1.3 | 0.7 |
| HCM LOS              | A   | B    |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 1493  | -   | -   | 948        | 525   | 1295  | -   |
| HCM Lane V/C Ratio    | 0.037 | -   | -   | 0.037      | 0.133 | 0.008 | -   |
| HCM Control Delay (s) | 7.5   | 0.1 | -   | 8.9        | 12.9  | 7.8   | 0   |
| HCM Lane LOS          | A     | A   | -   | A          | B     | A     | A   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0.1        | 0.5   | 0     | -   |

| Intersection             |        |        |      |        |       |      |
|--------------------------|--------|--------|------|--------|-------|------|
| Int Delay, s/veh         | 1.4    |        |      |        |       |      |
| Movement                 | EBL    | EBT    | WBT  | WBR    | SBL   | SBR  |
| Lane Configurations      |        | ↑↑     | ↑↑   |        | ↑     |      |
| Traffic Vol, veh/h       | 15     | 88     | 258  | 1      | 4     | 45   |
| Future Vol, veh/h        | 15     | 88     | 258  | 1      | 4     | 45   |
| Conflicting Peds, #/hr   | 0      | 0      | 0    | 0      | 0     | 0    |
| Sign Control             | Free   | Free   | Free | Free   | Stop  | Stop |
| RT Channelized           | -      | None   | -    | None   | -     | None |
| Storage Length           | -      | -      | -    | -      | 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                | 16     | 96     | 280  | 1      | 4     | 49   |
| Major/Minor              | Major1 | Major2 |      | Minor2 |       |      |
| Conflicting Flow All     | 281    | 0      | -    | 0      | 361   | 141  |
| Stage 1                  | -      | -      | -    | -      | 281   | -    |
| Stage 2                  | -      | -      | -    | -      | 80    | -    |
| Critical Hdwy            | 4.14   | -      | -    | -      | 6.84  | 6.94 |
| Critical Hdwy Stg 1      | -      | -      | -    | -      | 5.84  | -    |
| Critical Hdwy Stg 2      | -      | -      | -    | -      | 5.84  | -    |
| Follow-up Hdwy           | 2.22   | -      | -    | -      | 3.52  | 3.32 |
| Pot Cap-1 Maneuver       | 1278   | -      | -    | -      | 611   | 881  |
| Stage 1                  | -      | -      | -    | -      | 741   | -    |
| Stage 2                  | -      | -      | -    | -      | 934   | -    |
| Platoon blocked, %       |        | -      | -    | -      |       |      |
| Mov Cap-1 Maneuver       | 1278   | -      | -    | -      | 603   | 881  |
| Mov Cap-2 Maneuver       | -      | -      | -    | -      | 603   | -    |
| Stage 1                  | -      | -      | -    | -      | 731   | -    |
| Stage 2                  | -      | -      | -    | -      | 934   | -    |
| Approach                 | EB     | WB     |      | SB     |       |      |
| HCM Control Delay, s     | 1.1    | 0      |      | 9.5    |       |      |
| HCM LOS                  |        |        |      | A      |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT  | WBR    | SBLn1 |      |
| Capacity (veh/h)         | 1278   | -      | -    | -      | 849   |      |
| HCM Lane V/C Ratio       | 0.013  | -      | -    | -      | 0.063 |      |
| HCM Control Delay (s)    | 7.9    | -      | -    | -      | 9.5   |      |
| HCM Lane LOS             | A      | -      | -    | -      | A     |      |
| HCM 95th %tile Q(veh)    | 0      | -      | -    | -      | 0.2   |      |

| Intersection             |        |        |      |        |       |      |
|--------------------------|--------|--------|------|--------|-------|------|
| Int Delay, s/veh         | 1.2    |        |      |        |       |      |
| Movement                 | EBL    | EBT    | WBT  | WBR    | SBL   | SBR  |
| Lane Configurations      |        | ↑↑     | ↑↑   |        | ↑     |      |
| Traffic Vol, veh/h       | 51     | 294    | 170  | 5      | 3     | 29   |
| Future Vol, veh/h        | 51     | 294    | 170  | 5      | 3     | 29   |
| Conflicting Peds, #/hr   | 0      | 0      | 0    | 0      | 0     | 0    |
| Sign Control             | Free   | Free   | Free | Free   | Stop  | Stop |
| RT Channelized           | -      | None   | -    | None   | -     | None |
| Storage Length           | -      | -      | -    | -      | 0     | -    |
| Veh in Median Storage, # | -      | 0      | 0    | -      | 0     | -    |
| Grade, %                 | -      | 0      | 0    | -      | 0     | -    |
| Peak Hour Factor         | 92     | 92     | 92   | 92     | 92    | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2    | 2      | 2     | 2    |
| Mvmt Flow                | 55     | 320    | 185  | 5      | 3     | 32   |
| Major/Minor              | Major1 | Major2 |      | Minor2 |       |      |
| Conflicting Flow All     | 190    | 0      | -    | 0      | 458   | 95   |
| Stage 1                  | -      | -      | -    | -      | 188   | -    |
| Stage 2                  | -      | -      | -    | -      | 270   | -    |
| Critical Hdwy            | 4.14   | -      | -    | -      | 6.84  | 6.94 |
| Critical Hdwy Stg 1      | -      | -      | -    | -      | 5.84  | -    |
| Critical Hdwy Stg 2      | -      | -      | -    | -      | 5.84  | -    |
| Follow-up Hdwy           | 2.22   | -      | -    | -      | 3.52  | 3.32 |
| Pot Cap-1 Maneuver       | 1381   | -      | -    | -      | 531   | 943  |
| Stage 1                  | -      | -      | -    | -      | 825   | -    |
| Stage 2                  | -      | -      | -    | -      | 751   | -    |
| Platoon blocked, %       |        | -      | -    | -      |       |      |
| Mov Cap-1 Maneuver       | 1381   | -      | -    | -      | 506   | 943  |
| Mov Cap-2 Maneuver       | -      | -      | -    | -      | 506   | -    |
| Stage 1                  | -      | -      | -    | -      | 785   | -    |
| Stage 2                  | -      | -      | -    | -      | 751   | -    |
| Approach                 | EB     | WB     |      | SB     |       |      |
| HCM Control Delay, s     | 1.1    | 0      |      | 9.3    |       |      |
| HCM LOS                  |        |        |      | A      |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT  | WBR    | SBLn1 |      |
| Capacity (veh/h)         | 1381   | -      | -    | -      | 872   |      |
| HCM Lane V/C Ratio       | 0.04   | -      | -    | -      | 0.04  |      |
| HCM Control Delay (s)    | 7.7    | -      | -    | -      | 9.3   |      |
| HCM Lane LOS             | A      | -      | -    | -      | A     |      |
| HCM 95th %tile Q(veh)    | 0.1    | -      | -    | -      | 0.1   |      |