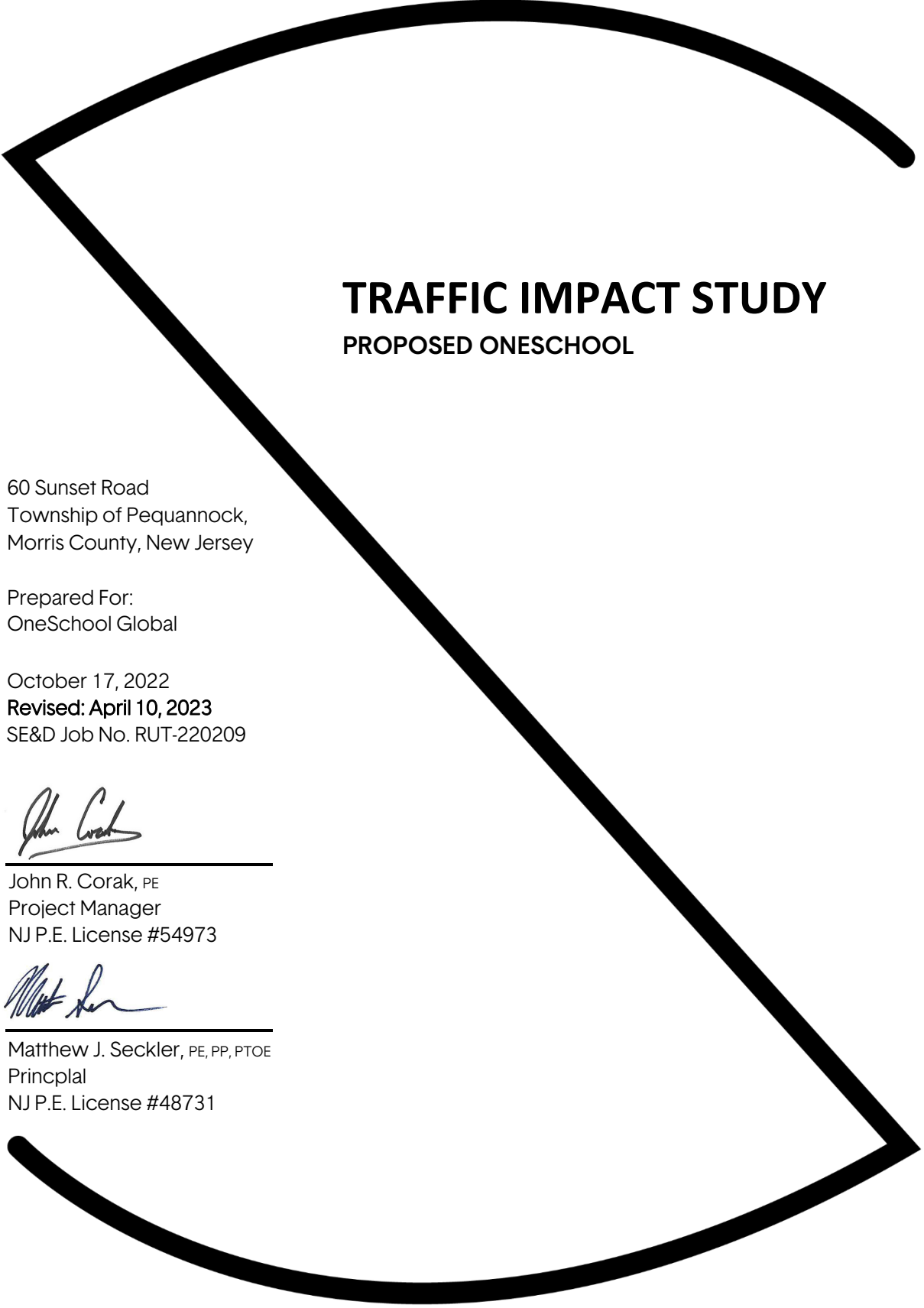




# TRAFFIC IMPACT STUDY

## PROPOSED ONESCHOOL

60 Sunset Road  
Township of Pequannock,  
Morris County, New Jersey

Prepared For:  
OneSchool Global

October 17, 2022  
**Revised: April 10, 2023**  
SE&D Job No. RUT-220209



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### STONEFIELD

92 Park Avenue, Rutherford, NJ 07070

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## EXECUTIVE SUMMARY

This Traffic Impact Study was prepared to update the original Traffic Impact Study prepared by our office dated October 17, 2022, based on the updated development plan for the proposed OneSchool located along the northerly side of Sunset Road in the Township of Pequannock, Morris County, New Jersey:

1. Under the proposed development program, a 27,825-square-foot private school, known as OneSchool, would be constructed on the subject property. Access is proposed via one (1) ingress-only driveway aligned with Washburn Road and one (1) egress-only driveway along Sunset Road.
2. Due to the proximity of the site to Pequannock High School, traffic counts were conducted during the school arrival and school dismissal time periods of both Pequannock High School and the proposed development. It is noted that the counts were conducted while classes were in session for the School District of Pequannock. Based on the review of the count data the weekday arrival peak hour occurred from 7:00 a.m. to 8:00 a.m. and the weekday dismissal peak hour occurred from 2:15 p.m. to 3:15 p.m.
3. The proposed OneSchool would consist of 11 teachers, one (1) administrator, and up to five (5) ancillary staff members, for a total of 17 employees. The school would serve approximately 100 students total in grades three (3) through 12.
4. The majority of students would arrive to the site via vans with each van transporting approximately 10 students at a time. A portion of licensed-aged students in the senior high school class would likely drive themselves; it is estimated that a peak of six (6) students would drive themselves to school. Based on the student body population, 12 vans would be required to transport students, with each van being stored off-site while not in use.
5. To provide a conservative analysis, the trip generation of the proposed development during the school arrival and school dismissal peak hours assumed that pick-ups and drop-offs, student self-arrival, and employee arrival and departure would occur within the peak hour.
6. Based on the analyses conducted the intersections throughout the roadway network and the proposed site driveways would operate at acceptable Levels of Service and delay with the construction of the proposed OneSchool.
7. The site would provide 44 total parking spaces. Based on the maximum number of employees on-site and the number of students that drive themselves to school, 23 vehicles would be parked on-site during a typical school day. As such, the proposed parking supply of 44 spaces would be sufficient to support this project's parking demand.

## INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed OneSchool on the adjacent roadway network. The subject property is located along the northerly side of Sunset Road and is bounded by Roome Avenue to the east and Dewilde Drive to the north in the Township of Pequannock, Morris County, New Jersey. The site location is shown on appended **Figure 1**.

The subject property is designated as Block 2104, Lot 21 as depicted on the Township of Pequannock Tax Map. The site has approximately 412 feet of frontage along Sunset Road, approximately 351 feet of frontage along Roome Avenue, and approximately 275 feet of frontage along Dewilde Drive. The existing site is occupied by non-operational Pompton Valley Presbyterian Church and Sunset Co-Op Nursery School. Access is presently provided via one (1) full-movement driveway along Sunset Road, and one (1) ingress-only driveway and one (1) egress-only driveway along Roome Avenue. Under the proposed development program, the existing structures would be razed and a 27,825-square-foot private school, known as OneSchool, would be constructed. Access to the site is proposed via one (1) ingress-only driveway aligned with Washburn Road and one (1) egress-only driveway along Sunset Road.

## METHODOLOGY

Stonefield Engineering & Design, LLC has prepared this Traffic Impact Study in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within Transportation Impact Analyses for Site Development. A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network. A data collection effort was completed to identify the existing traffic volumes at the study intersections to serve as a base for the traffic analyses. Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the Highway Capacity Manual, 6<sup>th</sup> Edition (HCM) and the Synchro II Software for all study conditions to assess the roadway operations.

For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle. The Technical Appendix contains the Highway Capacity Analysis Detail Sheets for the study intersections analyzed in this assessment. The traffic signal timing utilized within the signalized analysis is based on timing directives provided by Morris County.

## 2022 EXISTING CONDITION

### 2022 EXISTING ROADWAY CONDITIONS

The proposed OneSchool is located along the northerly side of Sunset Road and is bounded by Roome Avenue to the east and Dewilde Drive to the north in the Township of Pequannock, Morris County, New Jersey. The subject property is designated as Block 2104, Lot 21 as depicted on the Township of Pequannock Tax Map. The site has approximately 412 feet of frontage along Sunset Road, approximately 351 feet of frontage along Roome Avenue, and approximately 275 feet of frontage along Dewilde Drive. Land uses in the area are a mix of educational, religious, and residential uses.

Sunset Road is classified as an Urban Major Collector roadway with a general east-west orientation, and is under the jurisdiction of the Township of Pequannock. Along the site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 35 mph with restrictions to 25 mph in the vicinity of Pequannock High School. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. Sunset Road provides general east-west mobility throughout the Township of Pequannock for educational, religious, and residential uses along its length.

Boulevard (County Route 511A) is classified as an Urban Minor Arterial roadway with a general north-south orientation, and is under the jurisdiction of Morris County. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 40 mph and with restrictions to 25 mph in the vicinity of Hillview Elementary School. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is not permitted. Boulevard provides north-south mobility throughout the Township of Pequannock and surrounding municipalities and provides access to NJSH Route 23 to the north for educational, religious, and residential uses along its length.

West Parkway is classified as an Urban Major Collector roadway with a general north-south orientation, and is under the jurisdiction of the Township of Pequannock. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction with additional lanes provided at key intersections to facilitate turning movements. The roadway has a posted speed limit of 35 mph and with restrictions to 25 mph in the vicinity of Pequannock High School. Curb and sidewalk are provided along both sides of the roadway, shoulders are not provided, and on-street parking is permitted along the easterly side of the roadway adjacent to Pequannock High School. West Parkway provides general north-south mobility throughout the Township of Pequannock with medical, educational, and residential uses along its length.

Roome Avenue is a local roadway with a general north-south orientation, and is under the jurisdiction of the Township of Pequannock. Along the site frontage, the roadway provides one (1) lane of travel in each

direction. Curb is provided along both sides of the roadway, sidewalks are not provided, shoulders are not provided, and on-street parking is permitted along both sides of the roadway. Roome Avenue provides north-south mobility in the Township of Pequannock, from Evelyn Place at its northerly terminus to Sunset Road at its southerly terminus with predominately residential uses along its length.

Washburn Road is a local roadway with a general north-south orientation, and is under the jurisdiction of the Township of Pequannock. In the vicinity of the site, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 25 mph. Curb and sidewalk are not provided, shoulders are not provided, and on-street parking is permitted with restrictions in effect daily from 8:00 a.m. to 4:00 p.m. along the westerly side of the roadway. Washburn Road provides north-south mobility from Sunset Road at its northerly terminus to Nichols Road at its southerly terminus with predominately residential uses along its length.

Sunset Road and Boulevard intersect to form a four (4)-leg intersection controlled by a two (2)-phase traffic signal operating on a variable cycle length. The eastbound and westbound approaches of Sunset Road provide one (1) shared left-turn/through/right-turn lane. The northbound and southbound approaches of Boulevard provide one (1) shared left-turn/through/right-turn lane. Crosswalks, pedestrian signals, and pedestrian ramps are provided across all legs of the intersection.

Sunset Road and Roome Avenue intersect to form an unsignalized T-intersection with the southbound approach of Roome Avenue operating under stop control. The eastbound approach of Sunset Road provides one (1) shared left-turn/through lane and the westbound approach of Sunset Road provides one (1) shared through/right-turn lane. The southbound approach of Roome Avenue provides one (1) shared left-turn/right-turn lane. Pedestrian ramps are provided across the northerly leg of the intersection.

Sunset Road and Washburn Road intersect to form an unsignalized T-intersection with the northbound approach of Roome Avenue operating under stop control. The eastbound approach of Sunset Road provides one (1) shared through/right-turn lane and the westbound approach of Sunset Road provides one (1) shared left-turn/through lane. The northbound approach of Washburn Road provides one (1) shared left-turn/right-turn lane. Pedestrian ramps are provided across the southerly leg of the intersection.

Sunset Road and West Parkway intersect to form an unsignalized T-intersection with the westbound approach of Sunset Road operating under stop control. The westbound approach of Sunset Road provides one (1) shared left-turn/right-turn lane. The northbound approach of West Parkway provides one (1) shared through/right-turn lane and the southbound approach of West Parkway provides one (1) exclusive left-turn lane and one (1) exclusive through lane. Crosswalks and pedestrian ramps are provided across the easterly and northerly legs of the intersection.

## 2022 EXISTING TRAFFIC VOLUMES

Turning movement counts were collected during the typical weekday arrival and weekday dismissal time periods to evaluate existing traffic conditions and identify the specific hours when traffic activity on the adjacent roadways is at a maximum and could be potentially impacted by the development of the site. Turning movement counts were collected at the following intersections:

- ◆ Sunset Road and Boulevard
- ◆ Sunset Road and Roome Avenue
- ◆ Sunset Road and Washburn Road
- ◆ Sunset Road and West Parkway

Specifically, turning movement counts were conducted on the following date and during the following times:

- ◆ Tuesday, June 7, 2022, from 6:30 a.m. to 8:30 a.m. and from 2:00 p.m. to 4:00 p.m.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed development, as the site is directly adjacent to Pequannock Township High School. It is noted that the traffic counts were conducted while classes were in session for the School District of Pequannock. The traffic volume data was collected and analyzed to identify the design peak hour in accordance with HCM and ITE guidelines. Based on the review of the count data the weekday arrival peak hour occurred from 7:00 a.m. to 8:00 a.m. and the weekday dismissal peak hour occurred from 2:15 p.m. to 3:15 p.m. The Technical Appendix contains a summary of the turning movement count data. The 2022 Existing weekday arrival and weekday dismissal peak-hour volumes are summarized on appended **Figure 2**.

## 2022 EXISTING LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was conducted for the 2022 Existing Condition during the weekday arrival and weekday dismissal peak hours at the study intersections. Under the existing condition, the signalized intersection of Sunset Road and Boulevard is calculated to operate at overall Level of Service of B during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and Roome Avenue are calculated to operate at Level of Service B or better during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and Washburn Road are calculated to operate at Level of Service B or better during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and West Parkway are calculated to operate at Level of Service D or better during the weekday arrival peak hour and Level of Service C or better during the weekday dismissal peak hour.



## 2024 NO-BUILD CONDITION

### BACKGROUND GROWTH

The 2022 Existing Condition traffic volume data was grown to a future horizon year of 2024, which is a conservative estimate for when the proposed OneSchool is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 1.00% annually for two (2) years. The 1.00% background growth rate was obtained from the New Jersey Department of Transportation (NJDOT) Annual Background Growth Rate Table.

### OTHER PLANNED DEVELOPMENT PROJECTS

To evaluate the future traffic conditions, it is important to consider the potential site-generated traffic of other projects that could influence the traffic volume at the study intersections. Other planned development projects include those that are either in the entitlement process or have recently been approved for building permits in proximity to the proposed development. Based on consultations with the Township of Pequannock Land Use Secretary, Lori Camaya, there are no planned development projects within the area of the subject site. As such, the application of the background growth rate would be adequate to account for background traffic growth.

### 2024 NO-BUILD TRAFFIC VOLUMES

The background growth rate was applied to the 2022 Existing Traffic Volumes to calculate the 2024 No-Build Traffic Volumes for the weekday arrival and weekday dismissal peak hours. These volumes are summarized on appended **Figure 3**.

### 2024 NO-BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 No-Build Condition during the weekday arrival and weekday dismissal peak hours at the study intersections. The signalized intersection of Sunset Road and Boulevard is calculated to operate generally consistent with the findings of the Existing Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and Roome Avenue are calculated to operate generally consistent with the findings of the Existing Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and Washburn Road are calculated to operate generally consistent with the findings of the Existing Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and West

Parkway are calculated to operate at Level of Service E or better during the weekday arrival peak hour and at Level of Service C or better during the weekday dismissal peak hour.

## 2024 BUILD CONDITION

The site-generated traffic volume of the proposed OneSchool was estimated to identify the potential impacts of the project. For the purpose of this analysis, a complete project “build out” is assumed within two (2) years of the preparation of this study.

### TRIP GENERATION

Trip generation projections for the proposed OneSchool were prepared utilizing operational information provided by the applicant. The school would consist of 11 teachers, one (1) administrative assistant, and up to five (5) ancillary staff members (e.g. administrators, nurse). The five (5) ancillary staff members would not be at the school on an everyday basis, however this analysis considers the traffic impact of the five (5) additional staff in addition to the 12 daily faculty. The school would serve approximately 100 students total in grades three (3) through 12. The majority of students would arrive to the site via vans with each van transporting approximately 10 students at a time. A portion of licensed-aged students in the senior high school class would likely drive themselves; it is estimated that a peak of six (6) students would drive themselves to school. It is anticipated that approximately 12 vans would be required to transport students, and the vans would be stored off-site while not in use. To provide a conservative analysis, the trip generation of the proposed development during the school arrival and school dismissal peak hours assumed that pick-ups and drop-offs, student self-arrival, and employee arrival and departure would occur within the peak hour. **Table I** provides the weekday arrival and weekday dismissal peak hour trip generation volumes associated with the proposed development.

**TABLE I – PROPOSED TRIP GENERATION**

| Land Use                     | Weekday Arrival<br>Peak Hour |           |           | Weekday Dismissal<br>Peak Hour |           |           |
|------------------------------|------------------------------|-----------|-----------|--------------------------------|-----------|-----------|
|                              | Enter                        | Exit      | Total     | Enter                          | Exit      | Total     |
| 12 Vans                      | 12                           | 12        | 24        | 12                             | 12        | 24        |
| Self-Driving Students        | 6                            | 0         | 6         | 0                              | 6         | 6         |
| Daily Faculty                | 12                           | 0         | 12        | 0                              | 12        | 12        |
| Ancillary Faculty            | 5                            | 0         | 5         | 0                              | 5         | 5         |
| <b>Total Trip Generation</b> | <b>35</b>                    | <b>12</b> | <b>47</b> | <b>12</b>                      | <b>35</b> | <b>47</b> |

The proposed development is expected to generate a maximum 47 new trips during the critical weekday arrival and weekday dismissal peak hours. Based on Transportation Impact Analysis for Site Development published by ITE, a trip increase of less than 100 vehicle trips would likely not change the level of service of the adjacent roadway system or appreciably increase the volume-to-capacity ratio of an intersection approach. As

such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

### TRIP ASSIGNMENT/DISTRIBUTION

The trips generated by the proposed development were distributed according to the existing travel pattern along the adjacent roadways, the location of residential neighborhoods proximate to the site, and the access management plan of the site. Based on the site's proximity to residential neighborhoods, it is anticipated that a majority of traffic would be routed to and from Boulevard and West Parkway. The Site-Generated Traffic Volumes are illustrated on **Figure 4**.

### 2024 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2024 No-Build Traffic Volumes to calculate the 2024 Build Traffic Volumes and are shown on appended **Figure 5**.

### 2024 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2024 Build Condition during the weekday arrival and weekday dismissal peak hours at the study intersections and proposed site driveway. Appended **Table AI** compares the Existing, No-Build, and Build Conditions Level of Service and delay values.

The signalized intersection of Sunset Road and Boulevard is calculated to operate generally consistent with the findings of the No-Build Condition at overall Level of Service B during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and Roome Avenue are calculated to operate generally consistent with the findings of the No-Build Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road, Washburn Road, and the ingress-only site driveway are calculated to operate at Level of Service B or better during the weekday arrival and weekday dismissal peak hours. The turning movements at the unsignalized intersection of Sunset Road and West Parkway are calculated to operate generally consistent with the findings of the No-Build Condition during the weekday arrival and weekday dismissal peak hours. The turning movements at the site driveway along Sunset Road are calculated to operate at Level of Service B during the weekday arrival and weekday dismissal peak hours.

### **SITE CIRCULATION/PARKING SUPPLY**

A review was conducted of the proposed OneSchool using the Site Plan prepared by our office, dated April 6, 2023. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Access is proposed via one (1) ingress-only driveway aligned with Washburn Road and one (1) egress-only driveway along Sunset Road. The proposed OneSchool would be located on the southerly portion of the property with parking spaces provided to the west of the building. A proposed 12-foot-wide drop-off and pick-up lane would be located to the south of the building. Two (2)-way vehicular circulation throughout the site would be provided via 24-foot-wide drive aisles.

Regarding the parking requirements for the proposed development, the Township of Pequannock Ordinance requires 2.5 parking spaces per classroom and one (1) parking space per 10 students for secondary school uses and two (2) parking spaces per classroom and one (1) parking space per staff member for elementary school uses. For the proposed OneSchool with seven (7) secondary school classrooms, 100 secondary school students, eight (8) elementary school classrooms, and 12 elementary school staff members, this equates to 56 required spaces. The site would provide 44 total parking spaces, inclusive of three (3) ADA accessible parking spaces and nine (9) sets of tandem parking spaces (18 total spaces). Based on operational information provided by the applicant, the 12 vans anticipated to transport students would be stored off-site when not in use and the tandem parking spaces would be utilized by employees. Based on the maximum number of employees on-site and the number of students that drive themselves to school, 23 vehicles would be parked on-site during a typical school day. As such, the proposed parking supply of 44 spaces would be sufficient to support this project's parking demand. The spaces would be nine (9) feet wide by 18 feet deep in accordance with Township of Pequannock Ordinance and industry standards.

## CONCLUSIONS

This report was prepared to examine the potential traffic impact of the proposed OneSchool. The analysis findings, which have been based on industry-standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The traffic analyses considered the adjacent Pequannock Township High School as the traffic counts utilized were conducted when school was in session. The trip generation projections for the proposed OneSchool were performed utilizing operational information provided by the applicant for the proposed development and the existing OneSchool campus. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on operational information provided by the applicant and the expected number of vehicles expected to park on-site during a typical school day, the parking supply would be sufficient to support this project.

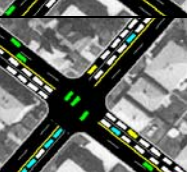
## **TECHNICAL APPENDIX**

**LEVEL OF SERVICE/AVERAGE CONTROL DELAY CRITERIA**

## LEVEL OF SERVICE /AVERAGE CONTROL DELAY CRITERIA

The ability of a roadway to effectively accommodate traffic demand is determined through an assessment of the volume-to-capacity ratio, delay and Level of Service of the lane group and/or intersection. The volume-to-capacity ratio is the ratio of traffic flow rate to capacity for a given transportation facility. As defined within the Highway Capacity Manual, 6<sup>th</sup> Edition (HCM), intersection delay is the total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility. Level of service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle and LOS F denotes operations with delay in excess of 80 seconds per vehicle.

|                                                                                     | Level Of Service (LOS) | Signalized Delay Range (average control delay in sec/veh) | Unsignalized Delay Range (average control delay in sec/veh) |
|-------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------|-------------------------------------------------------------|
|   | A                      | $\leq 10$                                                 | $\leq 10$                                                   |
|  | B                      | $> 10$ and $\leq 20$                                      | $> 10$ and $\leq 15$                                        |
|  | C                      | $> 20$ and $\leq 35$                                      | $> 15$ and $\leq 25$                                        |
|  | D                      | $> 35$ and $\leq 55$                                      | $> 25$ and $\leq 35$                                        |
|  | E                      | $> 55$ and $\leq 80$                                      | $> 35$ and $\leq 50$                                        |
|  | F                      | $> 80$                                                    | $> 50$                                                      |

Source: Highway Capacity Manual, 6<sup>th</sup> Edition

# STONEFIELD

**Table A1: Comparative Level of Service (Delay) Table**  
 Township of Pequannock, Morris County, New Jersey  
 X (n) = Level of Service (seconds of delay)

| Intersection                                              | Lane Group            | Weekday Arrival Peak Hour |                         |                      | Weekday Dismissal Peak Hour |                         |                      |
|-----------------------------------------------------------|-----------------------|---------------------------|-------------------------|----------------------|-----------------------------|-------------------------|----------------------|
|                                                           |                       | 2022 Existing Condition   | 2024 No-Build Condition | 2024 Build Condition | 2022 Existing Condition     | 2024 No-Build Condition | 2024 Build Condition |
| Sunset Road (E/W) & Boulevard (N/S)                       | EB Left/Through/Right | C (34.9)                  | D (35.3)                | D (35.7)             | C (33.9)                    | C (33.9)                | C (34.0)             |
|                                                           | WB Left/Through/Right | C (28.1)                  | C (28.0)                | C (27.8)             | C (31.4)                    | C (31.3)                | C (30.7)             |
|                                                           | NB Left/Through/Right | A (9.4)                   | A (9.8)                 | B (10.4)             | A (4.9)                     | A (5.0)                 | A (5.5)              |
|                                                           | SB Left/Through/Right | A (8.3)                   | A (8.6)                 | A (9.0)              | A (0.0)                     | A (0.0)                 | A (0.0)              |
|                                                           | Overall               | B (17.4)                  | B (17.7)                | B (18.1)             | B (16.5)                    | B (16.5)                | B (17.1)             |
| Sunset Road (E/W) & Roome Avenue (S)                      | EB Left/Through/Right | A (8.0)                   | A (8.0)                 | A (8.1)              | A (7.8)                     | A (7.8)                 | A (7.8)              |
|                                                           | SB Left/Through/Right | B (14.1)                  | B (14.3)                | B (14.5)             | B (11.1)                    | B (11.2)                | B (11.3)             |
| Sunset Road (E/W), Washburn Road (N), & Site Driveway (S) | EB Left/Through/Right |                           |                         | B (14.5)             |                             |                         | A (7.8)              |
|                                                           | WB Left/Through/Right | A (8.3)                   | A (8.3)                 | A (8.3)              | A (8.1)                     | A (8.1)                 | A (8.2)              |
|                                                           | NB Left/Through/Right | B (13.0)                  | B (13.1)                | B (13.7)             | B (11.6)                    | B (11.7)                | B (12.0)             |
| Sunset Road (W) & West Parkway (N/S)                      | WB Left/Right         | D (32.5)                  | E (35.5)                | E (39.5)             | C (20.6)                    | C (21.3)                | C (22.4)             |
|                                                           | SB Left               | A (9.1)                   | A (9.2)                 | A (9.3)              | A (8.4)                     | A (8.5)                 | A (8.5)              |
| Sunset Road (E/W) & Site Driveway (S)                     | SB Left/Right         |                           |                         | B (14.3)             |                             |                         | B (12.9)             |



## **TURNING MOVEMENT COUNT DATA**

# Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W)  
& Boulevard (N/S)  
Pequannock, Morris County, New Jersey  
Tuesday, June 7, 2022

File Name : RUT-220209.03  
Site Code : 00220209  
Start Date : 6/7/2022  
Page No : 1

## Groups Printed- Auto - HV - B/SB

|               | Sunset Road Eastbound |      |       |      |            | Sunset Road Westbound |      |       |      |            | Boulevard Northbound |      |       |      |            | Boulevard Southbound |      |       |      |            |            |
|---------------|-----------------------|------|-------|------|------------|-----------------------|------|-------|------|------------|----------------------|------|-------|------|------------|----------------------|------|-------|------|------------|------------|
| Start Time    | Left                  | Thru | Right | Peds | App. Total | Left                  | Thru | Right | Peds | App. Total | Left                 | Thru | Right | Peds | App. Total | Left                 | Thru | Right | Peds | App. Total | Int. Total |
| 06:30 AM      | 9                     | 5    | 2     | 0    | 16         | 1                     | 11   | 0     | 1    | 13         | 1                    | 37   | 1     | 0    | 39         | 2                    | 33   | 6     | 0    | 41         | 109        |
| 06:45 AM      | 7                     | 13   | 6     | 1    | 27         | 3                     | 13   | 2     | 0    | 18         | 4                    | 49   | 2     | 1    | 56         | 2                    | 59   | 15    | 0    | 76         | 177        |
| Total         | 16                    | 18   | 8     | 1    | 43         | 4                     | 24   | 2     | 1    | 31         | 5                    | 86   | 3     | 1    | 95         | 4                    | 92   | 21    | 0    | 117        | 286        |
| 07:00 AM      | 19                    | 22   | 10    | 0    | 51         | 1                     | 22   | 1     | 3    | 27         | 11                   | 56   | 1     | 2    | 70         | 1                    | 37   | 29    | 0    | 67         | 215        |
| 07:15 AM      | 30                    | 44   | 15    | 0    | 89         | 0                     | 51   | 2     | 2    | 55         | 37                   | 55   | 3     | 3    | 98         | 1                    | 55   | 43    | 0    | 99         | 341        |
| 07:30 AM      | 15                    | 55   | 8     | 3    | 81         | 2                     | 17   | 3     | 1    | 23         | 7                    | 91   | 16    | 5    | 119        | 12                   | 80   | 7     | 0    | 99         | 322        |
| 07:45 AM      | 12                    | 31   | 6     | 0    | 49         | 1                     | 18   | 1     | 0    | 20         | 8                    | 99   | 9     | 1    | 117        | 6                    | 69   | 10    | 1    | 86         | 272        |
| Total         | 76                    | 152  | 39    | 3    | 270        | 4                     | 108  | 7     | 6    | 125        | 63                   | 301  | 29    | 11   | 404        | 20                   | 241  | 89    | 1    | 351        | 1150       |
| 08:00 AM      | 8                     | 21   | 10    | 0    | 39         | 3                     | 11   | 6     | 2    | 22         | 5                    | 73   | 3     | 0    | 81         | 3                    | 73   | 7     | 1    | 84         | 226        |
| 08:15 AM      | 5                     | 31   | 13    | 1    | 50         | 8                     | 34   | 5     | 0    | 47         | 9                    | 79   | 4     | 2    | 94         | 5                    | 91   | 11    | 0    | 107        | 298        |
| *** BREAK *** |                       |      |       |      |            |                       |      |       |      |            |                      |      |       |      |            |                      |      |       |      |            |            |
| Total         | 13                    | 52   | 23    | 1    | 89         | 11                    | 45   | 11    | 2    | 69         | 14                   | 152  | 7     | 2    | 175        | 8                    | 164  | 18    | 1    | 191        | 524        |
| *** BREAK *** |                       |      |       |      |            |                       |      |       |      |            |                      |      |       |      |            |                      |      |       |      |            |            |
| 02:00 PM      | 34                    | 27   | 5     | 1    | 67         | 4                     | 22   | 5     | 0    | 31         | 10                   | 91   | 8     | 1    | 110        | 1                    | 57   | 10    | 1    | 69         | 277        |
| 02:15 PM      | 21                    | 24   | 4     | 1    | 50         | 7                     | 30   | 5     | 0    | 42         | 10                   | 82   | 4     | 1    | 97         | 3                    | 61   | 11    | 1    | 76         | 265        |
| 02:30 PM      | 27                    | 28   | 6     | 0    | 61         | 2                     | 18   | 5     | 1    | 26         | 7                    | 100  | 10    | 0    | 117        | 3                    | 57   | 13    | 1    | 74         | 278        |
| 02:45 PM      | 10                    | 25   | 4     | 0    | 39         | 3                     | 20   | 7     | 0    | 30         | 12                   | 87   | 7     | 0    | 106        | 3                    | 53   | 13    | 0    | 69         | 244        |
| Total         | 92                    | 104  | 19    | 2    | 217        | 16                    | 90   | 22    | 1    | 129        | 39                   | 360  | 29    | 2    | 430        | 10                   | 228  | 47    | 3    | 288        | 1064       |
| 03:00 PM      | 22                    | 21   | 7     | 0    | 50         | 1                     | 24   | 4     | 0    | 29         | 10                   | 112  | 7     | 0    | 129        | 2                    | 70   | 8     | 0    | 80         | 288        |
| 03:15 PM      | 11                    | 18   | 8     | 0    | 37         | 5                     | 21   | 2     | 1    | 29         | 10                   | 101  | 5     | 0    | 116        | 2                    | 52   | 8     | 0    | 62         | 244        |
| 03:30 PM      | 12                    | 25   | 2     | 0    | 39         | 2                     | 25   | 0     | 0    | 27         | 12                   | 88   | 8     | 0    | 108        | 6                    | 80   | 15    | 0    | 101        | 275        |
| 03:45 PM      | 21                    | 29   | 6     | 0    | 56         | 4                     | 18   | 1     | 1    | 24         | 7                    | 99   | 6     | 1    | 113        | 3                    | 62   | 17    | 0    | 82         | 275        |
| Total         | 66                    | 93   | 23    | 0    | 182        | 12                    | 88   | 7     | 2    | 109        | 39                   | 400  | 26    | 1    | 466        | 13                   | 264  | 48    | 0    | 325        | 1082       |
| Grand Total   | 263                   | 419  | 112   | 7    | 801        | 47                    | 355  | 49    | 12   | 463        | 160                  | 1299 | 94    | 17   | 1570       | 55                   | 989  | 223   | 5    | 1272       | 4106       |
| Apprch %      | 32.8                  | 52.3 | 14    | 0.9  |            | 10.2                  | 76.7 | 10.6  | 2.6  |            | 10.2                 | 82.7 | 6     | 1.1  |            | 4.3                  | 77.8 | 17.5  | 0.4  |            |            |
| Total %       | 6.4                   | 10.2 | 2.7   | 0.2  | 19.5       | 1.1                   | 8.6  | 1.2   | 0.3  | 11.3       | 3.9                  | 31.6 | 2.3   | 0.4  | 38.2       | 1.3                  | 24.1 | 5.4   | 0.1  | 31         |            |
| Auto          | 258                   | 409  | 109   | 7    | 783        | 47                    | 344  | 48    | 12   | 451        | 157                  | 1250 | 92    | 17   | 1516       | 55                   | 940  | 219   | 5    | 1219       | 3969       |
| % Auto        | 98.1                  | 97.6 | 97.3  | 100  | 97.8       | 100                   | 96.9 | 98    | 100  | 97.4       | 98.1                 | 96.2 | 97.9  | 100  | 96.6       | 100                  | 95   | 98.2  | 100  | 95.8       | 96.7       |
| HV            | 0                     | 6    | 2     | 0    | 8          | 0                     | 5    | 0     | 0    | 5          | 2                    | 39   | 2     | 0    | 43         | 0                    | 34   | 2     | 0    | 36         | 92         |
| % HV          | 0                     | 1.4  | 1.8   | 0    | 1          | 0                     | 1.4  | 0     | 0    | 1.1        | 1.2                  | 3    | 2.1   | 0    | 2.7        | 0                    | 3.4  | 0.9   | 0    | 2.8        | 2.2        |
| B/SB          | 5                     | 4    | 1     | 0    | 10         | 0                     | 6    | 1     | 0    | 7          | 1                    | 10   | 0     | 0    | 11         | 0                    | 15   | 2     | 0    | 17         | 45         |
| % B/SB        | 1.9                   | 1    | 0.9   | 0    | 1.2        | 0                     | 1.7  | 2     | 0    | 1.5        | 0.6                  | 0.8  | 0     | 0    | 0.7        | 0                    | 1.5  | 0.9   | 0    | 1.3        | 1.1        |

# Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W)  
& Boulevard (N/S)  
Pequannock, Morris County, New Jersey  
Tuesday, June 7, 2022

File Name : RUT-220209.03  
Site Code : 00220209  
Start Date : 6/7/2022  
Page No : 2

|                                                            | Sunset Road<br>Eastbound |      |       |      |            | Sunset Road<br>Westbound |      |       |      |            | Boulevard<br>Northbound |      |       |      |            | Boulevard<br>Southbound |      |       |      |            |            |
|------------------------------------------------------------|--------------------------|------|-------|------|------------|--------------------------|------|-------|------|------------|-------------------------|------|-------|------|------------|-------------------------|------|-------|------|------------|------------|
| Start Time                                                 | Left                     | Thru | Right | Peds | App. Total | Left                     | Thru | Right | Peds | App. Total | Left                    | Thru | Right | Peds | App. Total | Left                    | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 |                          |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |                         |      |       |      |            |            |
| Peak Hour for Entire Intersection Begins at 07:00 AM       |                          |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |                         |      |       |      |            |            |
| 07:00 AM                                                   | 19                       | 22   | 10    | 0    | 51         | 1                        | 22   | 1     | 3    | 27         | 11                      | 56   | 1     | 2    | 70         | 1                       | 37   | 29    | 0    | 67         | 215        |
| 07:15 AM                                                   | 30                       | 44   | 15    | 0    | 89         | 0                        | 51   | 2     | 2    | 55         | 37                      | 55   | 3     | 3    | 98         | 1                       | 55   | 43    | 0    | 99         | 341        |
| 07:30 AM                                                   | 15                       | 55   | 8     | 3    | 81         | 2                        | 17   | 3     | 1    | 23         | 7                       | 91   | 16    | 5    | 119        | 12                      | 80   | 7     | 0    | 99         | 322        |
| 07:45 AM                                                   | 12                       | 31   | 6     | 0    | 49         | 1                        | 18   | 1     | 0    | 20         | 8                       | 99   | 9     | 1    | 117        | 6                       | 69   | 10    | 1    | 86         | 272        |
| Total Volume                                               | 76                       | 152  | 39    | 3    | 270        | 4                        | 108  | 7     | 6    | 125        | 63                      | 301  | 29    | 11   | 404        | 20                      | 241  | 89    | 1    | 351        | 1150       |
| % App. Total                                               | 28.1                     | 56.3 | 14.4  | 1.1  |            | 3.2                      | 86.4 | 5.6   | 4.8  |            | 15.6                    | 74.5 | 7.2   | 2.7  |            | 5.7                     | 68.7 | 25.4  | 0.3  |            |            |
| PHF                                                        | .633                     | .691 | .650  | .250 | .758       | .500                     | .529 | .583  | .500 | .568       | .426                    | .760 | .453  | .550 | .849       | .417                    | .753 | .517  | .250 | .886       | .843       |
| Auto                                                       | 72                       | 150  | 38    | 3    | 263        | 4                        | 102  | 6     | 6    | 118        | 62                      | 278  | 29    | 11   | 380        | 20                      | 225  | 86    | 1    | 332        | 1093       |
| % Auto                                                     | 94.7                     | 98.7 | 97.4  | 100  | 97.4       | 100                      | 94.4 | 85.7  | 100  | 94.4       | 98.4                    | 92.4 | 100   | 100  | 94.1       | 100                     | 93.4 | 96.6  | 100  | 94.6       | 95.0       |
| HV                                                         | 0                        | 0    | 0     | 0    | 0          | 0                        | 2    | 0     | 0    | 2          | 0                       | 22   | 0     | 0    | 22         | 0                       | 13   | 1     | 0    | 14         | 38         |
| % HV                                                       | 0                        | 0    | 0     | 0    | 0          | 0                        | 1.9  | 0     | 0    | 1.6        | 0                       | 7.3  | 0     | 0    | 5.4        | 0                       | 5.4  | 1.1   | 0    | 4.0        | 3.3        |
| B/SB                                                       | 4                        | 2    | 1     | 0    | 7          | 0                        | 4    | 1     | 0    | 5          | 1                       | 1    | 0     | 0    | 2          | 0                       | 3    | 2     | 0    | 5          | 19         |
| % B/SB                                                     | 5.3                      | 1.3  | 2.6   | 0    | 2.6        | 0                        | 3.7  | 14.3  | 0    | 4.0        | 1.6                     | 0.3  | 0     | 0    | 0.5        | 0                       | 1.2  | 2.2   | 0    | 1.4        | 1.7        |

Peak Hour Analysis From 02:15 PM to 03:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:15 PM

|              |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 02:15 PM     | 21   | 24   | 4    | 1    | 50   | 7    | 30   | 5    | 0    | 42   | 10   | 82   | 4    | 1    | 97   | 3    | 61   | 11   | 1    | 76   | 265  |
| 02:30 PM     | 27   | 28   | 6    | 0    | 61   | 2    | 18   | 5    | 1    | 26   | 7    | 100  | 10   | 0    | 117  | 3    | 57   | 13   | 1    | 74   | 278  |
| 02:45 PM     | 10   | 25   | 4    | 0    | 39   | 3    | 20   | 7    | 0    | 30   | 12   | 87   | 7    | 0    | 106  | 3    | 53   | 13   | 0    | 69   | 244  |
| 03:00 PM     | 22   | 21   | 7    | 0    | 50   | 1    | 24   | 4    | 0    | 29   | 10   | 112  | 7    | 0    | 129  | 2    | 70   | 8    | 0    | 80   | 288  |
| Total Volume | 80   | 98   | 21   | 1    | 200  | 13   | 92   | 21   | 1    | 127  | 39   | 381  | 28   | 1    | 449  | 11   | 241  | 45   | 2    | 299  | 1075 |
| % App. Total | 40   | 49   | 10.5 | 0.5  |      | 10.2 | 72.4 | 16.5 | 0.8  |      | 8.7  | 84.9 | 6.2  | 0.2  |      | 3.7  | 80.6 | 15.1 | 0.7  |      |      |
| PHF          | .741 | .875 | .750 | .250 | .820 | .464 | .767 | .750 | .250 | .756 | .813 | .850 | .700 | .250 | .870 | .917 | .861 | .865 | .500 | .934 | .933 |
| Auto         | 80   | 96   | 20   | 1    | 197  | 13   | 91   | 21   | 1    | 126  | 39   | 376  | 28   | 1    | 444  | 11   | 230  | 44   | 2    | 287  | 1054 |
| % Auto       | 100  | 98.0 | 95.2 | 100  | 98.5 | 100  | 98.9 | 100  | 100  | 99.2 | 100  | 98.7 | 100  | 100  | 98.9 | 100  | 95.4 | 97.8 | 100  | 96.0 | 98.0 |
| HV           | 0    | 2    | 1    | 0    | 3    | 0    | 1    | 0    | 0    | 1    | 0    | 4    | 0    | 0    | 4    | 0    | 9    | 1    | 0    | 10   | 18   |
| % HV         | 0    | 2.0  | 4.8  | 0    | 1.5  | 0    | 1.1  | 0    | 0    | 0.8  | 0    | 1.0  | 0    | 0    | 0.9  | 0    | 3.7  | 2.2  | 0    | 3.3  | 1.7  |
| B/SB         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 2    | 0    | 0    | 2    | 3    |
| % B/SB       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0.3  | 0    | 0    | 0.2  | 0    | 0.8  | 0    | 0    | 0.7  | 0.3  |

# Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (E/W),  
Washburn Road (N), & Roome Avenue (S)  
Pequannock, Morris County, New Jersey  
Tuesday, June 7, 2022

File Name : RUT-220209.02  
Site Code : 00220209  
Start Date : 6/7/2022  
Page No : 1

## Groups Printed- Auto - HV - B/SB

|               | Sunset Road Eastbound |      |       |      |            | Sunset Road Westbound |      |       |      |            | Washburn Road Northbound |      |       |      |            | Roome Avenue Southbound |      |       |      |            |            |
|---------------|-----------------------|------|-------|------|------------|-----------------------|------|-------|------|------------|--------------------------|------|-------|------|------------|-------------------------|------|-------|------|------------|------------|
| Start Time    | Left                  | Thru | Right | Peds | App. Total | Left                  | Thru | Right | Peds | App. Total | Left                     | Thru | Right | Peds | App. Total | Left                    | Thru | Right | Peds | App. Total | Int. Total |
| 06:30 AM      | 0                     | 15   | 0     | 0    | 15         | 0                     | 19   | 0     | 0    | 19         | 0                        | 0    | 0     | 1    | 1          | 1                       | 0    | 1     | 1    | 3          | 38         |
| 06:45 AM      | 1                     | 19   | 0     | 0    | 20         | 0                     | 32   | 0     | 0    | 32         | 0                        | 0    | 2     | 2    | 4          | 2                       | 0    | 0     | 0    | 2          | 58         |
| Total         | 1                     | 34   | 0     | 0    | 35         | 0                     | 51   | 0     | 0    | 51         | 0                        | 0    | 2     | 3    | 5          | 3                       | 0    | 1     | 1    | 5          | 96         |
|               |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
| 07:00 AM      | 2                     | 43   | 3     | 0    | 48         | 1                     | 55   | 5     | 0    | 61         | 3                        | 0    | 2     | 2    | 7          | 0                       | 1    | 0     | 0    | 1          | 117        |
| 07:15 AM      | 11                    | 103  | 31    | 0    | 145        | 3                     | 96   | 12    | 0    | 111        | 9                        | 3    | 10    | 8    | 30         | 3                       | 1    | 3     | 2    | 9          | 295        |
| 07:30 AM      | 2                     | 55   | 10    | 2    | 69         | 1                     | 27   | 0     | 0    | 28         | 2                        | 0    | 4     | 0    | 6          | 5                       | 0    | 0     | 0    | 5          | 108        |
| 07:45 AM      | 2                     | 35   | 1     | 0    | 38         | 0                     | 31   | 1     | 0    | 32         | 1                        | 0    | 1     | 2    | 4          | 4                       | 0    | 1     | 2    | 7          | 81         |
| Total         | 17                    | 236  | 45    | 2    | 300        | 5                     | 209  | 18    | 0    | 232        | 15                       | 3    | 17    | 12   | 47         | 12                      | 2    | 4     | 4    | 22         | 601        |
|               |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
| 08:00 AM      | 0                     | 36   | 1     | 0    | 37         | 0                     | 25   | 0     | 0    | 25         | 1                        | 0    | 1     | 0    | 2          | 1                       | 1    | 0     | 1    | 3          | 67         |
| 08:15 AM      | 1                     | 32   | 1     | 0    | 34         | 2                     | 42   | 2     | 0    | 46         | 1                        | 1    | 1     | 2    | 5          | 6                       | 0    | 3     | 0    | 9          | 94         |
| *** BREAK *** |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
| Total         | 1                     | 68   | 2     | 0    | 71         | 2                     | 67   | 2     | 0    | 71         | 2                        | 1    | 2     | 2    | 7          | 7                       | 1    | 3     | 1    | 12         | 161        |
| *** BREAK *** |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
|               |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
| 02:00 PM      | 2                     | 42   | 1     | 0    | 45         | 1                     | 30   | 1     | 0    | 32         | 1                        | 0    | 0     | 0    | 1          | 0                       | 0    | 0     | 0    | 0          | 78         |
| 02:15 PM      | 0                     | 30   | 3     | 0    | 33         | 3                     | 33   | 2     | 0    | 38         | 1                        | 0    | 3     | 3    | 7          | 3                       | 0    | 1     | 2    | 6          | 84         |
| 02:30 PM      | 4                     | 77   | 12    | 0    | 93         | 6                     | 59   | 4     | 0    | 69         | 1                        | 0    | 3     | 38   | 42         | 3                       | 0    | 8     | 4    | 15         | 219        |
| 02:45 PM      | 7                     | 83   | 58    | 0    | 148        | 2                     | 57   | 2     | 0    | 61         | 4                        | 0    | 3     | 21   | 28         | 3                       | 0    | 8     | 6    | 17         | 254        |
| Total         | 13                    | 232  | 74    | 0    | 319        | 12                    | 179  | 9     | 0    | 200        | 7                        | 0    | 9     | 62   | 78         | 9                       | 0    | 17    | 12   | 38         | 635        |
|               |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
| 03:00 PM      | 3                     | 72   | 4     | 0    | 79         | 3                     | 58   | 0     | 0    | 61         | 1                        | 0    | 2     | 10   | 13         | 1                       | 0    | 1     | 2    | 4          | 157        |
| 03:15 PM      | 0                     | 50   | 0     | 0    | 50         | 0                     | 47   | 1     | 0    | 48         | 2                        | 1    | 3     | 0    | 6          | 3                       | 0    | 2     | 0    | 5          | 109        |
| 03:30 PM      | 0                     | 55   | 2     | 0    | 57         | 3                     | 31   | 4     | 0    | 38         | 0                        | 2    | 2     | 0    | 4          | 2                       | 0    | 1     | 0    | 3          | 102        |
| 03:45 PM      | 0                     | 55   | 0     | 0    | 55         | 0                     | 29   | 2     | 0    | 31         | 3                        | 0    | 1     | 6    | 10         | 2                       | 0    | 2     | 0    | 4          | 100        |
| Total         | 3                     | 232  | 6     | 0    | 241        | 6                     | 165  | 7     | 0    | 178        | 6                        | 3    | 8     | 16   | 33         | 8                       | 0    | 6     | 2    | 16         | 468        |
|               |                       |      |       |      |            |                       |      |       |      |            |                          |      |       |      |            |                         |      |       |      |            |            |
| Grand Total   | 35                    | 802  | 127   | 2    | 966        | 25                    | 671  | 36    | 0    | 732        | 30                       | 7    | 38    | 95   | 170        | 39                      | 3    | 31    | 20   | 93         | 1961       |
| Apprch %      | 3.6                   | 83   | 13.1  | 0.2  |            | 3.4                   | 91.7 | 4.9   | 0    |            | 17.6                     | 4.1  | 22.4  | 55.9 |            | 41.9                    | 3.2  | 33.3  | 21.5 |            |            |
| Total %       | 1.8                   | 40.9 | 6.5   | 0.1  | 49.3       | 1.3                   | 34.2 | 1.8   | 0    | 37.3       | 1.5                      | 0.4  | 1.9   | 4.8  | 8.7        | 2                       | 0.2  | 1.6   | 1    | 4.7        |            |
| Auto          | 34                    | 774  | 126   | 2    | 936        | 25                    | 652  | 35    | 0    | 712        | 30                       | 7    | 37    | 95   | 169        | 37                      | 3    | 30    | 20   | 90         | 1907       |
| % Auto        | 97.1                  | 96.5 | 99.2  | 100  | 96.9       | 100                   | 97.2 | 97.2  | 0    | 97.3       | 100                      | 100  | 97.4  | 100  | 99.4       | 94.9                    | 100  | 96.8  | 100  | 96.8       | 97.2       |
| HV            | 1                     | 10   | 0     | 0    | 11         | 0                     | 9    | 1     | 0    | 10         | 0                        | 0    | 1     | 0    | 1          | 1                       | 0    | 0     | 0    | 1          | 23         |
| % HV          | 2.9                   | 1.2  | 0     | 0    | 1.1        | 0                     | 1.3  | 2.8   | 0    | 1.4        | 0                        | 0    | 2.6   | 0    | 0.6        | 2.6                     | 0    | 0     | 0    | 1.1        | 1.2        |
| B/SB          | 0                     | 18   | 1     | 0    | 19         | 0                     | 10   | 0     | 0    | 10         | 0                        | 0    | 0     | 0    | 0          | 1                       | 0    | 1     | 0    | 2          | 31         |
| % B/SB        | 0                     | 2.2  | 0.8   | 0    | 2          | 0                     | 1.5  | 0     | 0    | 1.4        | 0                        | 0    | 0     | 0    | 0          | 2.6                     | 0    | 3.2   | 0    | 2.2        | 1.6        |

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Intersection of Sunset Road (E/W),  
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Pequannock, Morris County, New Jersey  
Tuesday, June 7, 2022

File Name : RUT-220209.02  
Site Code : 00220209  
Start Date : 6/7/2022  
Page No : 2

|                                                            | Sunset Road<br>Eastbound |      |       |      |            | Sunset Road<br>Westbound |      |       |      |            | Washburn Road<br>Northbound |      |       |      |            | Roome Avenue<br>Southbound |      |       |      |            |            |
|------------------------------------------------------------|--------------------------|------|-------|------|------------|--------------------------|------|-------|------|------------|-----------------------------|------|-------|------|------------|----------------------------|------|-------|------|------------|------------|
| Start Time                                                 | Left                     | Thru | Right | Peds | App. Total | Left                     | Thru | Right | Peds | App. Total | Left                        | Thru | Right | Peds | App. Total | Left                       | Thru | Right | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 |                          |      |       |      |            |                          |      |       |      |            |                             |      |       |      |            |                            |      |       |      |            |            |
| Peak Hour for Entire Intersection Begins at 07:00 AM       |                          |      |       |      |            |                          |      |       |      |            |                             |      |       |      |            |                            |      |       |      |            |            |
| 07:00 AM                                                   | 2                        | 43   | 3     | 0    | 48         | 1                        | 55   | 5     | 0    | 61         | 3                           | 0    | 2     | 2    | 7          | 0                          | 1    | 0     | 0    | 1          | 117        |
| 07:15 AM                                                   | 11                       | 103  | 31    | 0    | 145        | 3                        | 96   | 12    | 0    | 111        | 9                           | 3    | 10    | 8    | 30         | 3                          | 1    | 3     | 2    | 9          | 295        |
| 07:30 AM                                                   | 2                        | 55   | 10    | 2    | 69         | 1                        | 27   | 0     | 0    | 28         | 2                           | 0    | 4     | 0    | 6          | 5                          | 0    | 0     | 0    | 5          | 108        |
| 07:45 AM                                                   | 2                        | 35   | 1     | 0    | 38         | 0                        | 31   | 1     | 0    | 32         | 1                           | 0    | 1     | 2    | 4          | 4                          | 0    | 1     | 2    | 7          | 81         |
| Total Volume                                               | 17                       | 236  | 45    | 2    | 300        | 5                        | 209  | 18    | 0    | 232        | 15                          | 3    | 17    | 12   | 47         | 12                         | 2    | 4     | 4    | 22         | 601        |
| % App. Total                                               | 5.7                      | 78.7 | 15    | 0.7  |            | 2.2                      | 90.1 | 7.8   | 0    |            | 31.9                        | 6.4  | 36.2  | 25.5 |            | 54.5                       | 9.1  | 18.2  | 18.2 |            |            |
| PHF                                                        | .386                     | .573 | .363  | .250 | .517       | .417                     | .544 | .375  | .000 | .523       | .417                        | .250 | .425  | .375 | .392       | .600                       | .500 | .333  | .500 | .611       | .509       |
| Auto                                                       | 17                       | 228  | 45    | 2    | 292        | 5                        | 201  | 18    | 0    | 224        | 15                          | 3    | 17    | 12   | 47         | 12                         | 2    | 4     | 4    | 22         | 585        |
| % Auto                                                     | 100                      | 96.6 | 100   | 100  | 97.3       | 100                      | 96.2 | 100   | 0    | 96.6       | 100                         | 100  | 100   | 100  | 100        | 100                        | 100  | 100   | 100  | 100        | 97.3       |
| HV                                                         | 0                        | 0    | 0     | 0    | 0          | 0                        | 2    | 0     | 0    | 2          | 0                           | 0    | 0     | 0    | 0          | 0                          | 0    | 0     | 0    | 0          | 2          |
| % HV                                                       | 0                        | 0    | 0     | 0    | 0          | 0                        | 1.0  | 0     | 0    | 0.9        | 0                           | 0    | 0     | 0    | 0          | 0                          | 0    | 0     | 0    | 0          | 0.3        |
| B/SB                                                       | 0                        | 8    | 0     | 0    | 8          | 0                        | 6    | 0     | 0    | 6          | 0                           | 0    | 0     | 0    | 0          | 0                          | 0    | 0     | 0    | 0          | 14         |
| % B/SB                                                     | 0                        | 3.4  | 0     | 0    | 2.7        | 0                        | 2.9  | 0     | 0    | 2.6        | 0                           | 0    | 0     | 0    | 0          | 0                          | 0    | 0     | 0    | 0          | 2.3        |

Peak Hour Analysis From 02:15 PM to 03:00 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 02:15 PM

|              |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 02:15 PM     | 0    | 30   | 3    | 0    | 33   | 3    | 33   | 2    | 0    | 38   | 1    | 0    | 3    | 3    | 7    | 3    | 0    | 1    | 2    | 6    | 84   |
| 02:30 PM     | 4    | 77   | 12   | 0    | 93   | 6    | 59   | 4    | 0    | 69   | 1    | 0    | 3    | 38   | 42   | 3    | 0    | 8    | 4    | 15   | 219  |
| 02:45 PM     | 7    | 83   | 58   | 0    | 148  | 2    | 57   | 2    | 0    | 61   | 4    | 0    | 3    | 21   | 28   | 3    | 0    | 8    | 6    | 17   | 254  |
| 03:00 PM     | 3    | 72   | 4    | 0    | 79   | 3    | 58   | 0    | 0    | 61   | 1    | 0    | 2    | 10   | 13   | 1    | 0    | 1    | 2    | 4    | 157  |
| Total Volume | 14   | 262  | 77   | 0    | 353  | 14   | 207  | 8    | 0    | 229  | 7    | 0    | 11   | 72   | 90   | 10   | 0    | 18   | 14   | 42   | 714  |
| % App. Total | 4    | 74.2 | 21.8 | 0    |      | 6.1  | 90.4 | 3.5  | 0    |      | 7.8  | 0    | 12.2 | 80   |      | 23.8 | 0    | 42.9 | 33.3 |      |      |
| PHF          | .500 | .789 | .332 | .000 | .596 | .583 | .877 | .500 | .000 | .830 | .438 | .000 | .917 | .474 | .536 | .833 | .000 | .563 | .583 | .618 | .703 |
| Auto         | 14   | 257  | 76   | 0    | 347  | 14   | 199  | 8    | 0    | 221  | 7    | 0    | 11   | 72   | 90   | 9    | 0    | 18   | 14   | 41   | 699  |
| % Auto       | 100  | 98.1 | 98.7 | 0    | 98.3 | 100  | 96.1 | 100  | 0    | 96.5 | 100  | 0    | 100  | 100  | 100  | 90.0 | 0    | 100  | 100  | 97.6 | 97.9 |
| HV           | 0    | 2    | 0    | 0    | 2    | 0    | 5    | 0    | 0    | 5    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 1    | 8    |
| % HV         | 0    | 0.8  | 0    | 0    | 0.6  | 0    | 2.4  | 0    | 0    | 2.2  | 0    | 0    | 0    | 0    | 0    | 10.0 | 0    | 0    | 0    | 2.4  | 1.1  |
| B/SB         | 0    | 3    | 1    | 0    | 4    | 0    | 3    | 0    | 0    | 3    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 7    |
| % B/SB       | 0    | 1.1  | 1.3  | 0    | 1.1  | 0    | 1.4  | 0    | 0    | 1.3  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1.0  |

# Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Sunset Road (W)  
& West Parkway (N/S)  
Pequannock, Morris County, New Jersey  
Tuesday, June 7, 2022

File Name : RUT-220209.01  
Site Code : 00220209  
Start Date : 6/7/2022  
Page No : 1

## Groups Printed- Auto - HV - B/SB

|               | Sunset Road<br>Westbound |       |      |            | West Parkway<br>Northbound |       |      |            | West Parkway<br>Southbound |      |      |            |            |
|---------------|--------------------------|-------|------|------------|----------------------------|-------|------|------------|----------------------------|------|------|------------|------------|
| Start Time    | Left                     | Right | Peds | App. Total | Thru                       | Right | Peds | App. Total | Left                       | Thru | Peds | App. Total | Int. Total |
| 06:30 AM      | 12                       | 7     | 0    | 19         | 15                         | 4     | 0    | 19         | 8                          | 63   | 0    | 71         | 109        |
| 06:45 AM      | 14                       | 3     | 1    | 18         | 14                         | 11    | 0    | 25         | 13                         | 80   | 0    | 93         | 136        |
| Total         | 26                       | 10    | 1    | 37         | 29                         | 15    | 0    | 44         | 21                         | 143  | 0    | 164        | 245        |
| 07:00 AM      | 15                       | 6     | 1    | 22         | 14                         | 26    | 0    | 40         | 26                         | 53   | 0    | 79         | 141        |
| 07:15 AM      | 18                       | 7     | 0    | 25         | 33                         | 138   | 0    | 171        | 52                         | 69   | 0    | 121        | 317        |
| 07:30 AM      | 14                       | 10    | 3    | 27         | 42                         | 14    | 0    | 56         | 29                         | 72   | 0    | 101        | 184        |
| 07:45 AM      | 22                       | 9     | 1    | 32         | 39                         | 22    | 0    | 61         | 20                         | 96   | 1    | 117        | 210        |
| Total         | 69                       | 32    | 5    | 106        | 128                        | 200   | 0    | 328        | 127                        | 290  | 1    | 418        | 852        |
| 08:00 AM      | 11                       | 9     | 1    | 21         | 31                         | 11    | 0    | 42         | 28                         | 87   | 0    | 115        | 178        |
| 08:15 AM      | 15                       | 22    | 1    | 38         | 40                         | 10    | 0    | 50         | 25                         | 74   | 0    | 99         | 187        |
| *** BREAK *** |                          |       |      |            |                            |       |      |            |                            |      |      |            |            |
| Total         | 26                       | 31    | 2    | 59         | 71                         | 21    | 0    | 92         | 53                         | 161  | 0    | 214        | 365        |
| *** BREAK *** |                          |       |      |            |                            |       |      |            |                            |      |      |            |            |
| 02:00 PM      | 12                       | 8     | 1    | 21         | 40                         | 31    | 1    | 72         | 16                         | 53   | 0    | 69         | 162        |
| 02:15 PM      | 16                       | 9     | 1    | 26         | 43                         | 17    | 1    | 61         | 22                         | 46   | 0    | 68         | 155        |
| 02:30 PM      | 31                       | 12    | 4    | 47         | 48                         | 52    | 0    | 100        | 33                         | 73   | 2    | 108        | 255        |
| 02:45 PM      | 48                       | 26    | 0    | 74         | 42                         | 37    | 1    | 80         | 21                         | 98   | 0    | 119        | 273        |
| Total         | 107                      | 55    | 6    | 168        | 173                        | 137   | 3    | 313        | 92                         | 270  | 2    | 364        | 845        |
| 03:00 PM      | 19                       | 26    | 3    | 48         | 69                         | 47    | 0    | 116        | 19                         | 48   | 2    | 69         | 233        |
| 03:15 PM      | 18                       | 19    | 0    | 37         | 50                         | 32    | 0    | 82         | 17                         | 58   | 0    | 75         | 194        |
| 03:30 PM      | 12                       | 12    | 3    | 27         | 50                         | 30    | 0    | 80         | 24                         | 64   | 0    | 88         | 195        |
| 03:45 PM      | 22                       | 12    | 0    | 34         | 47                         | 28    | 0    | 75         | 12                         | 64   | 0    | 76         | 185        |
| Total         | 71                       | 69    | 6    | 146        | 216                        | 137   | 0    | 353        | 72                         | 234  | 2    | 308        | 807        |
| Grand Total   | 299                      | 197   | 20   | 516        | 617                        | 510   | 3    | 1130       | 365                        | 1098 | 5    | 1468       | 3114       |
| Apprch %      | 57.9                     | 38.2  | 3.9  |            | 54.6                       | 45.1  | 0.3  |            | 24.9                       | 74.8 | 0.3  |            |            |
| Total %       | 9.6                      | 6.3   | 0.6  | 16.6       | 19.8                       | 16.4  | 0.1  | 36.3       | 11.7                       | 35.3 | 0.2  | 47.1       |            |
| Auto          | 295                      | 188   | 20   | 503        | 596                        | 501   | 3    | 1100       | 343                        | 1071 | 5    | 1419       | 3022       |
| % Auto        | 98.7                     | 95.4  | 100  | 97.5       | 96.6                       | 98.2  | 100  | 97.3       | 94                         | 97.5 | 100  | 96.7       | 97         |
| HV            | 1                        | 3     | 0    | 4          | 15                         | 6     | 0    | 21         | 7                          | 21   | 0    | 28         | 53         |
| % HV          | 0.3                      | 1.5   | 0    | 0.8        | 2.4                        | 1.2   | 0    | 1.9        | 1.9                        | 1.9  | 0    | 1.9        | 1.7        |
| B/SB          | 3                        | 6     | 0    | 9          | 6                          | 3     | 0    | 9          | 15                         | 6    | 0    | 21         | 39         |
| % B/SB        | 1                        | 3     | 0    | 1.7        | 1                          | 0.6   | 0    | 0.8        | 4.1                        | 0.5  | 0    | 1.4        | 1.3        |

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Intersection of Sunset Road (W)  
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Pequannock, Morris County, New Jersey  
Tuesday, June 7, 2022

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|                                                            | Sunset Road<br>Westbound |       |      |            | West Parkway<br>Northbound |       |      |            | West Parkway<br>Southbound |      |      |            |            |
|------------------------------------------------------------|--------------------------|-------|------|------------|----------------------------|-------|------|------------|----------------------------|------|------|------------|------------|
| Start Time                                                 | Left                     | Right | Peds | App. Total | Thru                       | Right | Peds | App. Total | Left                       | Thru | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 |                          |       |      |            |                            |       |      |            |                            |      |      |            |            |
| Peak Hour for Entire Intersection Begins at 07:00 AM       |                          |       |      |            |                            |       |      |            |                            |      |      |            |            |
| 07:00 AM                                                   | 15                       | 6     | 1    | 22         | 14                         | 26    | 0    | 40         | 26                         | 53   | 0    | 79         | 141        |
| 07:15 AM                                                   | 18                       | 7     | 0    | 25         | 33                         | 138   | 0    | 171        | 52                         | 69   | 0    | 121        | 317        |
| 07:30 AM                                                   | 14                       | 10    | 3    | 27         | 42                         | 14    | 0    | 56         | 29                         | 72   | 0    | 101        | 184        |
| 07:45 AM                                                   | 22                       | 9     | 1    | 32         | 39                         | 22    | 0    | 61         | 20                         | 96   | 1    | 117        | 210        |
| Total Volume                                               | 69                       | 32    | 5    | 106        | 128                        | 200   | 0    | 328        | 127                        | 290  | 1    | 418        | 852        |
| % App. Total                                               | 65.1                     | 30.2  | 4.7  |            | 39                         | 61    | 0    |            | 30.4                       | 69.4 | 0.2  |            |            |
| PHF                                                        | .784                     | .800  | .417 | .828       | .762                       | .362  | .000 | .480       | .611                       | .755 | .250 | .864       | .672       |
| Auto                                                       | 67                       | 28    | 5    | 100        | 123                        | 199   | 0    | 322        | 121                        | 279  | 1    | 401        | 823        |
| % Auto                                                     | 97.1                     | 87.5  | 100  | 94.3       | 96.1                       | 99.5  | 0    | 98.2       | 95.3                       | 96.2 | 100  | 95.9       | 96.6       |
| HV                                                         | 0                        | 1     | 0    | 1          | 1                          | 1     | 0    | 2          | 0                          | 7    | 0    | 7          | 10         |
| % HV                                                       | 0                        | 3.1   | 0    | 0.9        | 0.8                        | 0.5   | 0    | 0.6        | 0                          | 2.4  | 0    | 1.7        | 1.2        |
| B/SB                                                       | 2                        | 3     | 0    | 5          | 4                          | 0     | 0    | 4          | 6                          | 4    | 0    | 10         | 19         |
| % B/SB                                                     | 2.9                      | 9.4   | 0    | 4.7        | 3.1                        | 0     | 0    | 1.2        | 4.7                        | 1.4  | 0    | 2.4        | 2.2        |

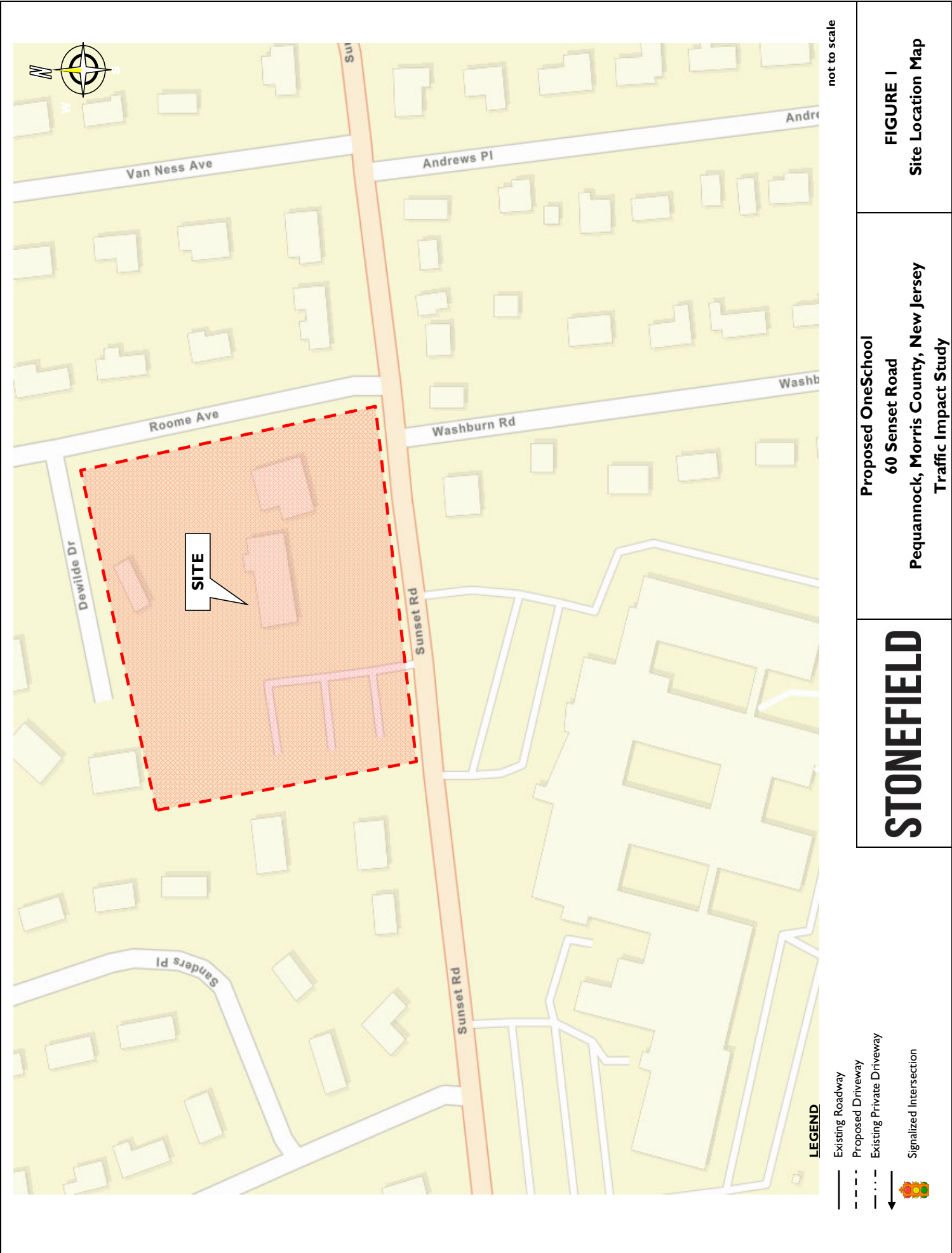
Peak Hour Analysis From 02:15 PM to 03:00 PM - Peak 1 of 1

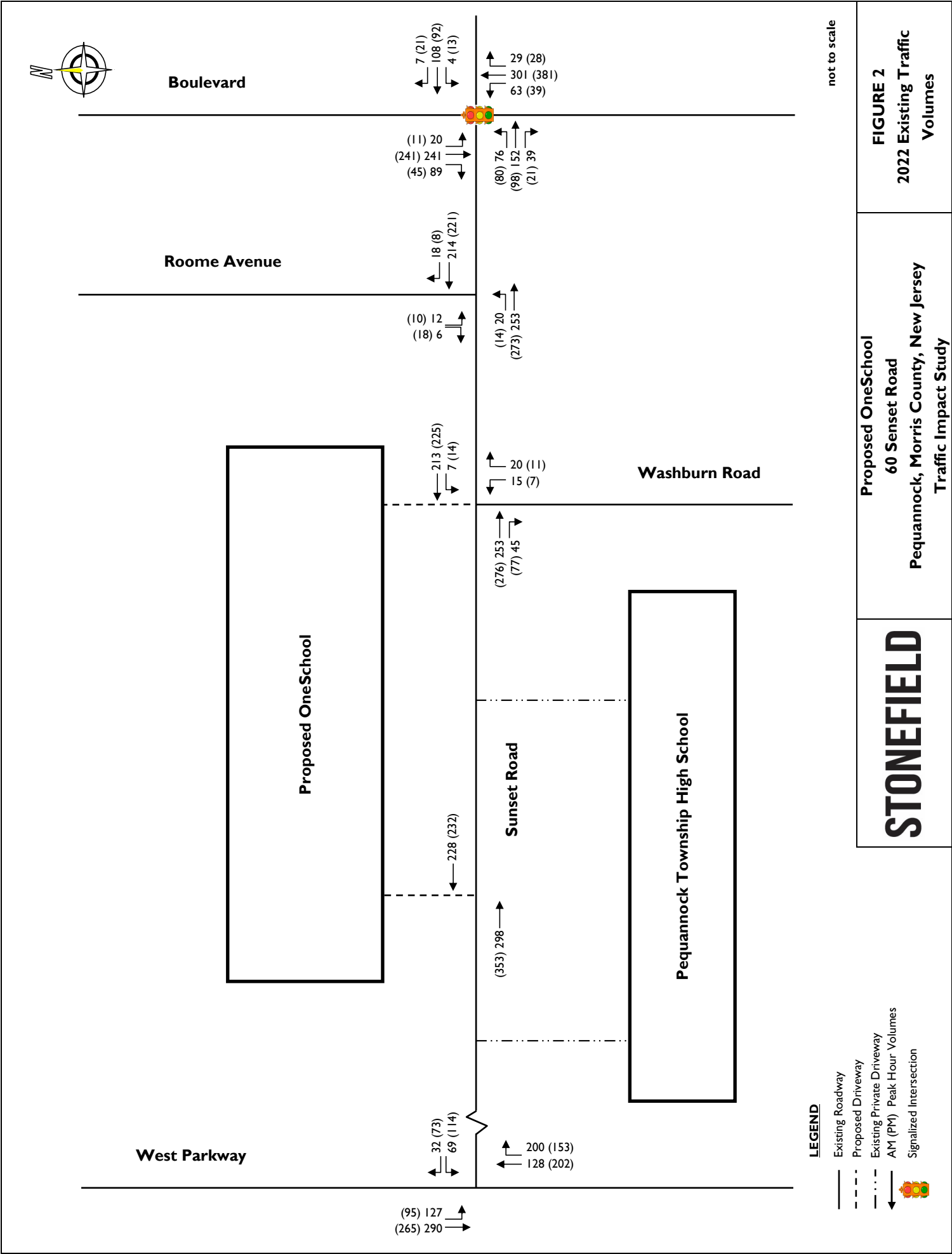
Peak Hour for Entire Intersection Begins at 02:15 PM

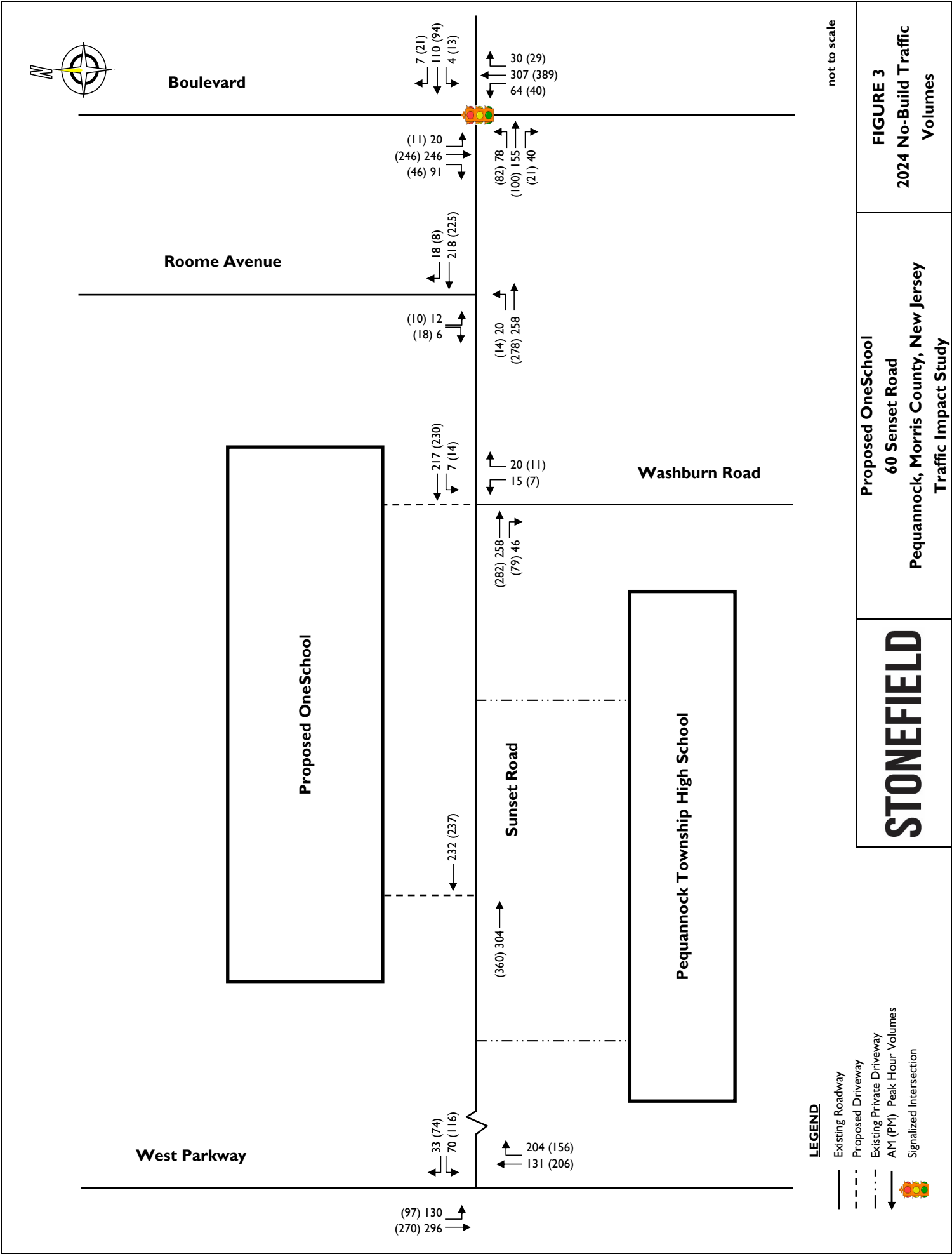
|              |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 02:15 PM     | 16   | 9    | 1    | 26   | 43   | 17   | 1    | 61   | 22   | 46   | 0    | 68   | 155  |
| 02:30 PM     | 31   | 12   | 4    | 47   | 48   | 52   | 0    | 100  | 33   | 73   | 2    | 108  | 255  |
| 02:45 PM     | 48   | 26   | 0    | 74   | 42   | 37   | 1    | 80   | 21   | 98   | 0    | 119  | 273  |
| 03:00 PM     | 19   | 26   | 3    | 48   | 69   | 47   | 0    | 116  | 19   | 48   | 2    | 69   | 233  |
| Total Volume | 114  | 73   | 8    | 195  | 202  | 153  | 2    | 357  | 95   | 265  | 4    | 364  | 916  |
| % App. Total | 58.5 | 37.4 | 4.1  |      | 56.6 | 42.9 | 0.6  |      | 26.1 | 72.8 | 1.1  |      |      |
| PHF          | .594 | .702 | .500 | .659 | .732 | .736 | .500 | .769 | .720 | .676 | .500 | .765 | .839 |
| Auto         | 114  | 70   | 8    | 192  | 196  | 151  | 2    | 349  | 91   | 262  | 4    | 357  | 898  |
| % Auto       | 100  | 95.9 | 100  | 98.5 | 97.0 | 98.7 | 100  | 97.8 | 95.8 | 98.9 | 100  | 98.1 | 98.0 |
| HV           | 0    | 1    | 0    | 1    | 4    | 1    | 0    | 5    | 1    | 3    | 0    | 4    | 10   |
| % HV         | 0    | 1.4  | 0    | 0.5  | 2.0  | 0.7  | 0    | 1.4  | 1.1  | 1.1  | 0    | 1.1  | 1.1  |
| B/SB         | 0    | 2    | 0    | 2    | 2    | 1    | 0    | 3    | 3    | 0    | 0    | 3    | 8    |
| % B/SB       | 0    | 2.7  | 0    | 1.0  | 1.0  | 0.7  | 0    | 0.8  | 3.2  | 0    | 0    | 0.8  | 0.9  |

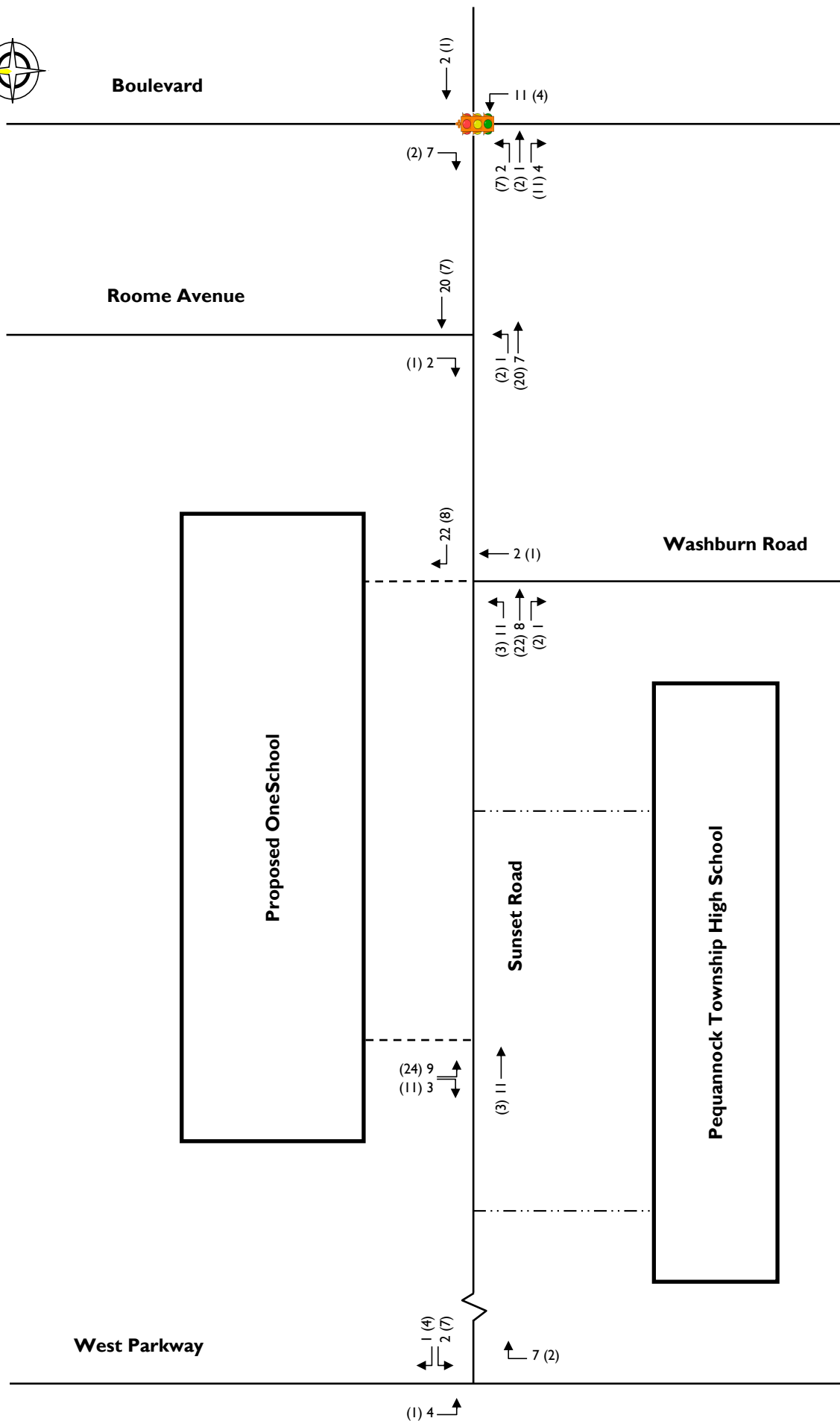
## FIGURES











not to scale

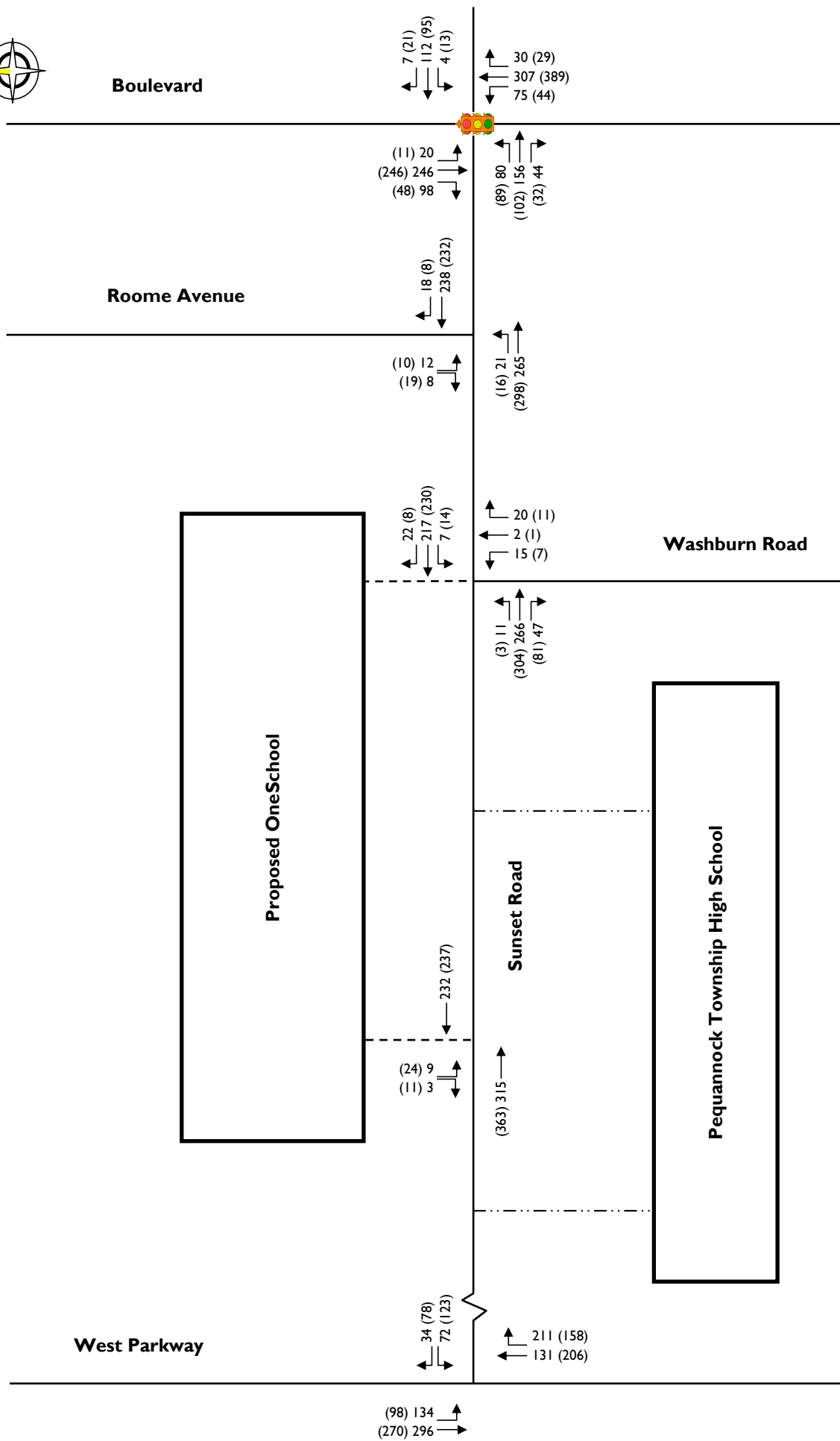
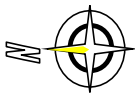
**LEGEND**

- Existing Roadway
- Proposed Driveway
- Existing Private Driveway
- AM (PM) Peak Hour Volumes
- Signalized Intersection

**Proposed OneSchool**  
**60 Sunset Road**  
**Pequannock, Morris County, New Jersey**  
**Traffic Impact Study**

**FIGURE 4**  
**Site-Generated Traffic**  
**Volumes**

**STONEFIELD**



not to scale

**LEGEND**

- Existing Roadway
- Proposed Driveway
- Existing Private Driveway
- AM (PM) Peak Hour Volumes
- Signalized Intersection

**STONEFIELD**

**Proposed OneSchool  
60 Sunset Road  
Pequannock, Morris County, New Jersey  
Traffic Impact Study**

**FIGURE 5  
2024 Build Traffic Volumes**

## **HIGHWAY CAPACITY ANALYSIS DETAIL SHEETS**

# HCM 6th Signalized Intersection Summary

## 1: Boulevard & Sunset Road

2022 Existing Condition  
Weekday Arrival Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 76                                                                                | 152                                                                               | 39                                                                                | 4                                                                                 | 108                                                                               | 7                                                                                 | 63                                                                                 | 301                                                                                 | 29                                                                                  | 20                                                                                  | 241                                                                                 | 89                                                                                  |
| Future Volume (veh/h)        | 76                                                                                | 152                                                                               | 39                                                                                | 4                                                                                 | 108                                                                               | 7                                                                                 | 63                                                                                 | 301                                                                                 | 29                                                                                  | 20                                                                                  | 241                                                                                 | 89                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.98                                                                              | 0.99                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 2051                                                                              | 2051                                                                              | 2034                                                                              | 2100                                                                              | 2018                                                                              | 1936                                                                              | 2067                                                                               | 1969                                                                                | 2100                                                                                | 2100                                                                                | 1985                                                                                | 2034                                                                                |
| Adj Flow Rate, veh/h         | 112                                                                               | 224                                                                               | 41                                                                                | 6                                                                                 | 159                                                                               | 9                                                                                 | 93                                                                                 | 443                                                                                 | 37                                                                                  | 29                                                                                  | 354                                                                                 | 47                                                                                  |
| Peak Hour Factor             | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                               | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 4                                                                                 | 0                                                                                 | 5                                                                                 | 10                                                                                | 2                                                                                  | 8                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   | 4                                                                                   |
| Cap, veh/h                   | 167                                                                               | 274                                                                               | 47                                                                                | 47                                                                                | 453                                                                               | 25                                                                                | 187                                                                                | 875                                                                                 | 70                                                                                  | 87                                                                                  | 994                                                                                 | 127                                                                                 |
| Arrive On Green              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.24                                                                              | 0.62                                                                               | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                |
| Sat Flow, veh/h              | 472                                                                               | 1130                                                                              | 196                                                                               | 22                                                                                | 1866                                                                              | 103                                                                               | 224                                                                                | 1408                                                                                | 113                                                                                 | 70                                                                                  | 1599                                                                                | 205                                                                                 |
| Grp Volume(v), veh/h         | 377                                                                               | 0                                                                                 | 0                                                                                 | 174                                                                               | 0                                                                                 | 0                                                                                 | 573                                                                                | 0                                                                                   | 0                                                                                   | 430                                                                                 | 0                                                                                   | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1798                                                                              | 0                                                                                 | 0                                                                                 | 1991                                                                              | 0                                                                                 | 0                                                                                 | 1745                                                                               | 0                                                                                   | 0                                                                                   | 1874                                                                                | 0                                                                                   | 0                                                                                   |
| Q Serve(g_s), s              | 11.2                                                                              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 4.6                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 17.6                                                                              | 0.0                                                                               | 0.0                                                                               | 6.4                                                                               | 0.0                                                                               | 0.0                                                                               | 14.8                                                                               | 0.0                                                                                 | 0.0                                                                                 | 9.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 0.30                                                                              |                                                                                   | 0.11                                                                              | 0.03                                                                              |                                                                                   | 0.05                                                                              | 0.16                                                                               |                                                                                     | 0.06                                                                                | 0.07                                                                                |                                                                                     | 0.11                                                                                |
| Lane Grp Cap(c), veh/h       | 489                                                                               | 0                                                                                 | 0                                                                                 | 526                                                                               | 0                                                                                 | 0                                                                                 | 1132                                                                               | 0                                                                                   | 0                                                                                   | 1208                                                                                | 0                                                                                   | 0                                                                                   |
| V/C Ratio(X)                 | 0.77                                                                              | 0.00                                                                              | 0.00                                                                              | 0.33                                                                              | 0.00                                                                              | 0.00                                                                              | 0.51                                                                               | 0.00                                                                                | 0.00                                                                                | 0.36                                                                                | 0.00                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 714                                                                               | 0                                                                                 | 0                                                                                 | 779                                                                               | 0                                                                                 | 0                                                                                 | 1132                                                                               | 0                                                                                   | 0                                                                                   | 1208                                                                                | 0                                                                                   | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                               | 0.00                                                                                | 0.00                                                                                | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 31.7                                                                              | 0.0                                                                               | 0.0                                                                               | 27.8                                                                              | 0.0                                                                               | 0.0                                                                               | 9.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 8.1                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 3.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 12.3                                                                              | 0.0                                                                               | 0.0                                                                               | 5.4                                                                               | 0.0                                                                               | 0.0                                                                               | 8.6                                                                                | 0.0                                                                                 | 0.0                                                                                 | 6.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 34.9                                                                              | 0.0                                                                               | 0.0                                                                               | 28.1                                                                              | 0.0                                                                               | 0.0                                                                               | 9.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 8.3                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | C                                                                                 | A                                                                                 | A                                                                                 | C                                                                                 | A                                                                                 | A                                                                                 | A                                                                                  | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 377                                                                               |                                                                                   |                                                                                   | 174                                                                               |                                                                                   |                                                                                    | 573                                                                                 |                                                                                     |                                                                                     | 430                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 34.9                                                                              |                                                                                   |                                                                                   | 28.1                                                                              |                                                                                   |                                                                                    | 9.4                                                                                 |                                                                                     |                                                                                     | 8.3                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 61.0                                                                              |                                                                                   | 27.5                                                                              |                                                                                   | 61.0                                                                              |                                                                                    | 27.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                    | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 55.0                                                                              |                                                                                   | 33.0                                                                              |                                                                                   | 55.0                                                                              |                                                                                    | 33.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 16.8                                                                              |                                                                                   | 19.6                                                                              |                                                                                   | 11.5                                                                              |                                                                                    | 8.4                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 4.3                                                                               |                                                                                   | 1.9                                                                               |                                                                                   | 2.9                                                                               |                                                                                    | 0.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   |                                                                                   | 17.4                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
2: Sunset Road & Roome Avenue

2022 Existing Condition  
Weekday Arrival Peak Hour

| Intersection             |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8  |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 20   | 253                                                                               | 214                                                                               | 18   | 12                                                                                | 6    |
| Future Vol, veh/h        | 20   | 253                                                                               | 214                                                                               | 18   | 12                                                                                | 6    |
| Conflicting Peds, #/hr   | 4    | 0                                                                                 | 0                                                                                 | 4    | 0                                                                                 | 2    |
| 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         | 68   | 68                                                                                | 68                                                                                | 68   | 68                                                                                | 68   |
| Heavy Vehicles, %        | 0    | 3                                                                                 | 4                                                                                 | 0    | 0                                                                                 | 0    |
| Mvmt Flow                | 29   | 372                                                                               | 315                                                                               | 26   | 18                                                                                | 9    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 345    | 0      | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | 4.1    | -      | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | 2.2    | -      | -      |
| Pot Cap-1 Maneuver   | 1225   | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1220   | -      | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.6 | 0  | 14.1 |
| HCM LOS              | B   |    |      |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1220  | -   | -   | -   | 421   |
| HCM Lane V/C Ratio    | 0.024 | -   | -   | -   | 0.063 |
| HCM Control Delay (s) | 8     | 0   | -   | -   | 14.1  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.2   |



HCM 6th TWSC  
3: Washburn Road /Site Ingress Driveway & Sunset Road

2022 Existing Condition  
Weekday Arrival Peak Hour

| Intersection             |        |                                                                                   |        |       |                                                                                   |        |      |                                                                                   |      |      |      |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------|------|------|------|------|
| Int Delay, s/veh         | 0.9    |                                                                                   |        |       |                                                                                   |        |      |                                                                                   |      |      |      |      |
| Movement                 | EBL    | EBT                                                                               | EBR    | WBL   | WBT                                                                               | WBR    | NBL  | NBT                                                                               | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        |  |        |       |  |        |      |  |      |      |      |      |
| Traffic Vol, veh/h       | 0      | 253                                                                               | 45     | 7     | 213                                                                               | 0      | 15   | 0                                                                                 | 20   | 0    | 0    | 0    |
| Future Vol, veh/h        | 0      | 253                                                                               | 45     | 7     | 213                                                                               | 0      | 15   | 0                                                                                 | 20   | 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         | 92     | 68                                                                                | 68     | 68    | 68                                                                                | 92     | 68   | 92                                                                                | 68   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 0                                                                                 | 3      | 4     | 0                                                                                 | 2      | 0    | 2                                                                                 | 0    | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 372                                                                               | 66     | 10    | 313                                                                               | 0      | 22   | 0                                                                                 | 29   | 0    | 0    | 0    |
|                          |        |                                                                                   |        |       |                                                                                   |        |      |                                                                                   |      |      |      |      |
| Major/Minor              | Major1 |                                                                                   | Major2 |       |                                                                                   | Minor1 |      |                                                                                   |      |      |      |      |
| Conflicting Flow All     | 313    | 0                                                                                 | 0      | 438   | 0                                                                                 | 0      | 738  | 738                                                                               | 405  |      |      |      |
| Stage 1                  | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 405  | 405                                                                               | -    |      |      |      |
| Stage 2                  | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 333  | 333                                                                               | -    |      |      |      |
| Critical Hdwy            | 4.12   | -                                                                                 | -      | 4.14  | -                                                                                 | -      | 6.4  | 6.52                                                                              | 6.2  |      |      |      |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 5.4  | 5.52                                                                              | -    |      |      |      |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 5.4  | 5.52                                                                              | -    |      |      |      |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -      | 2.236 | -                                                                                 | -      | 3.5  | 4.018                                                                             | 3.3  |      |      |      |
| Pot Cap-1 Maneuver       | 1247   | -                                                                                 | -      | 1111  | -                                                                                 | -      | 388  | 346                                                                               | 650  |      |      |      |
| Stage 1                  | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 678  | 598                                                                               | -    |      |      |      |
| Stage 2                  | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 731  | 644                                                                               | -    |      |      |      |
| Platoon blocked, %       |        | -                                                                                 | -      |       | -                                                                                 | -      |      |                                                                                   |      |      |      |      |
| Mov Cap-1 Maneuver       | 1247   | -                                                                                 | -      | 1111  | -                                                                                 | -      | 384  | 0                                                                                 | 650  |      |      |      |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 384  | 0                                                                                 | -    |      |      |      |
| Stage 1                  | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 678  | 0                                                                                 | -    |      |      |      |
| Stage 2                  | -      | -                                                                                 | -      | -     | -                                                                                 | -      | 723  | 0                                                                                 | -    |      |      |      |
|                          |        |                                                                                   |        |       |                                                                                   |        |      |                                                                                   |      |      |      |      |
|                          |        |                                                                                   |        |       |                                                                                   |        |      |                                                                                   |      |      |      |      |
| Approach                 | EB     |                                                                                   | WB     |       |                                                                                   | NB     |      |                                                                                   |      |      |      |      |
| HCM Control Delay, s     | 0      |                                                                                   | 0.3    |       |                                                                                   | 13     |      |                                                                                   |      |      |      |      |
| HCM LOS                  |        |                                                                                   |        |       |                                                                                   | B      |      |                                                                                   |      |      |      |      |
|                          |        |                                                                                   |        |       |                                                                                   |        |      |                                                                                   |      |      |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBL                                                                               | EBT    | EBR   | WBL                                                                               | WBT    | WBR  |                                                                                   |      |      |      |      |
| Capacity (veh/h)         | 501    | 1247                                                                              | -      | -     | 1111                                                                              | -      | -    |                                                                                   |      |      |      |      |
| HCM Lane V/C Ratio       | 0.103  | -                                                                                 | -      | -     | 0.009                                                                             | -      | -    |                                                                                   |      |      |      |      |
| HCM Control Delay (s)    | 13     | 0                                                                                 | -      | -     | 8.3                                                                               | 0      | -    |                                                                                   |      |      |      |      |
| HCM Lane LOS             | B      | A                                                                                 | -      | -     | A                                                                                 | A      | -    |                                                                                   |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.3    | 0                                                                                 | -      | -     | 0                                                                                 | -      | -    |                                                                                   |      |      |      |      |

HCM 6th TWSC  
4: West Parkway & Sunset Road

2022 Existing Condition  
Weekday Arrival Peak Hour

| Intersection             |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 6.9                                                                               |      |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |      |  |      |  |  |
| Traffic Vol, veh/h       | 69                                                                                | 32   | 128                                                                               | 200  | 127                                                                               | 290                                                                               |
| Future Vol, veh/h        | 69                                                                                | 32   | 128                                                                               | 200  | 127                                                                               | 290                                                                               |
| Conflicting Peds, #/hr   | 1                                                                                 | 0    | 0                                                                                 | 5    | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 68                                                                                | 25   | 68                                                                                | 68   | 68                                                                                | 68                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 11   | 5                                                                                 | 1    | 4                                                                                 | 4                                                                                 |
| Mvmt Flow                | 101                                                                               | 128  | 188                                                                               | 294  | 187                                                                               | 426                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 1141   | 340    | 0      | 0 | 487   |
| Stage 1              | 340    | -      | -      | - | -     |
| Stage 2              | 801    | -      | -      | - | -     |
| Critical Hdwy        | 5.9    | 5.8    | -      | - | 4.14  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.399  | -      | - | 2.236 |
| Pot Cap-1 Maneuver   | 262    | 716    | -      | - | 1066  |
| Stage 1              | 721    | -      | -      | - | -     |
| Stage 2              | 442    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 215    | 713    | -      | - | 1061  |
| Mov Cap-2 Maneuver   | 215    | -      | -      | - | -     |
| Stage 1              | 717    | -      | -      | - | -     |
| Stage 2              | 364    | -      | -      | - | -     |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 32.5 | 0  | 2.8 |
| HCM LOS              | D    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 352   | 1061  |
| HCM Lane V/C Ratio    | -   | -        | 0.652 | 0.176 |
| HCM Control Delay (s) | -   | -        | 32.5  | 9.1   |
| HCM Lane LOS          | -   | -        | D     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 4.4   | 0.6   |

# HCM 6th Signalized Intersection Summary

## 1: Boulevard & Sunset Road

2022 Existing Condition  
Weekday Dismissal Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 80                                                                                | 98                                                                                | 21                                                                                | 13                                                                                | 92                                                                                | 21                                                                                | 39                                                                                 | 381                                                                                 | 28                                                                                  | 11                                                                                  | 241                                                                                 | 45                                                                                  |
| Future Volume (veh/h)        | 80                                                                                | 98                                                                                | 21                                                                                | 13                                                                                | 92                                                                                | 21                                                                                | 39                                                                                 | 381                                                                                 | 28                                                                                  | 11                                                                                  | 241                                                                                 | 45                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.96                                                                              | 0.98                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 2100                                                                              | 2067                                                                              | 1772                                                                              | 2100                                                                              | 2084                                                                              | 2100                                                                              | 2051                                                                               | 2100                                                                                | 2034                                                                                | 2100                                                                                | 2002                                                                                | 2100                                                                                |
| Adj Flow Rate, veh/h         | 90                                                                                | 110                                                                               | 12                                                                                | 15                                                                                | 103                                                                               | 23                                                                                | 44                                                                                 | 428                                                                                 | 27                                                                                  | 12                                                                                  | 271                                                                                 | -13                                                                                 |
| Peak Hour Factor             | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                               | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 2                                                                                 | 20                                                                                | 0                                                                                 | 1                                                                                 | 0                                                                                 | 3                                                                                  | 0                                                                                   | 4                                                                                   | 0                                                                                   | 6                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 167                                                                               | 153                                                                               | 15                                                                                | 67                                                                                | 233                                                                               | 49                                                                                | 129                                                                                | 1244                                                                                | 76                                                                                  | 73                                                                                  | 1067                                                                                | 0                                                                                   |
| Arrive On Green              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.70                                                                               | 0.70                                                                                | 0.70                                                                                | 0.70                                                                                | 0.70                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 685                                                                               | 1026                                                                              | 103                                                                               | 109                                                                               | 1563                                                                              | 326                                                                               | 113                                                                                | 1782                                                                                | 108                                                                                 | 38                                                                                  | 2038                                                                                | -95                                                                                 |
| Grp Volume(v), veh/h         | 212                                                                               | 0                                                                                 | 0                                                                                 | 141                                                                               | 0                                                                                 | 0                                                                                 | 499                                                                                | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1813                                                                              | 0                                                                                 | 0                                                                                 | 1998                                                                              | 0                                                                                 | 0                                                                                 | 2004                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Q Serve(g_s), s              | 3.5                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 8.6                                                                               | 0.0                                                                               | 0.0                                                                               | 5.1                                                                               | 0.0                                                                               | 0.0                                                                               | 7.5                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 0.42                                                                              |                                                                                   | 0.06                                                                              | 0.11                                                                              |                                                                                   | 0.16                                                                              | 0.09                                                                               |                                                                                     | 0.05                                                                                | 0.04                                                                                |                                                                                     | -0.05                                                                               |
| Lane Grp Cap(c), veh/h       | 336                                                                               | 0                                                                                 | 0                                                                                 | 349                                                                               | 0                                                                                 | 0                                                                                 | 1449                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| V/C Ratio(X)                 | 0.63                                                                              | 0.00                                                                              | 0.00                                                                              | 0.40                                                                              | 0.00                                                                              | 0.00                                                                              | 0.34                                                                               | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 788                                                                               | 0                                                                                 | 0                                                                                 | 864                                                                               | 0                                                                                 | 0                                                                                 | 1449                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                               | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 32.0                                                                              | 0.0                                                                               | 0.0                                                                               | 30.6                                                                              | 0.0                                                                               | 0.0                                                                               | 4.7                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 2.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.8                                                                               | 0.0                                                                               | 0.0                                                                               | 0.1                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 7.0                                                                               | 0.0                                                                               | 0.0                                                                               | 4.4                                                                               | 0.0                                                                               | 0.0                                                                               | 4.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 33.9                                                                              | 0.0                                                                               | 0.0                                                                               | 31.4                                                                              | 0.0                                                                               | 0.0                                                                               | 4.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | C                                                                                 | A                                                                                 | A                                                                                 | C                                                                                 | A                                                                                 | A                                                                                 | A                                                                                  | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 212                                                                               |                                                                                   |                                                                                   | 141                                                                               |                                                                                   |                                                                                    | 499                                                                                 |                                                                                     |                                                                                     |                                                                                     | 0                                                                                   |
| Approach Delay, s/veh        |                                                                                   | 33.9                                                                              |                                                                                   |                                                                                   | 31.4                                                                              |                                                                                   |                                                                                    | 4.9                                                                                 |                                                                                     |                                                                                     |                                                                                     | 0.0                                                                                 |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 61.0                                                                              |                                                                                   | 17.8                                                                              |                                                                                   | 61.0                                                                              |                                                                                    | 17.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                    | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 55.0                                                                              |                                                                                   | 33.0                                                                              |                                                                                   | 55.0                                                                              |                                                                                    | 33.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 9.5                                                                               |                                                                                   | 10.6                                                                              |                                                                                   | 0.0                                                                               |                                                                                    | 7.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 3.4                                                                               |                                                                                   | 1.2                                                                               |                                                                                   | 0.0                                                                               |                                                                                    | 0.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   |                                                                                   | 16.5                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
2: Sunset Road & Roome Avenue

2022 Existing Condition  
Weekday Dismissal Peak Hour

| Intersection             |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8  |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 14   | 273                                                                               | 221                                                                               | 8    | 10                                                                                | 18   |
| Future Vol, veh/h        | 14   | 273                                                                               | 221                                                                               | 8    | 10                                                                                | 18   |
| Conflicting Peds, #/hr   | 4    | 0                                                                                 | 0                                                                                 | 4    | 0                                                                                 | 2    |
| 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         | 89   | 89                                                                                | 89                                                                                | 89   | 89                                                                                | 89   |
| Heavy Vehicles, %        | 0    | 2                                                                                 | 3                                                                                 | 0    | 10                                                                                | 0    |
| Mvmt Flow                | 16   | 307                                                                               | 248                                                                               | 9    | 11                                                                                | 20   |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 261    | 0      | 596    |
| Stage 1              | -      | -      | 257    |
| Stage 2              | -      | -      | 339    |
| Critical Hdwy        | 4.1    | -      | 6.6    |
| Critical Hdwy Stg 1  | -      | -      | 5.5    |
| Critical Hdwy Stg 2  | -      | -      | 5.5    |
| Follow-up Hdwy       | 2.2    | -      | 3.59   |
| Pot Cap-1 Maneuver   | 1315   | -      | 446    |
| Stage 1              | -      | -      | 768    |
| Stage 2              | -      | -      | 704    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1310   | -      | 436    |
| Mov Cap-2 Maneuver   | -      | -      | 436    |
| Stage 1              | -      | -      | 753    |
| Stage 2              | -      | -      | 701    |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.4 | 0  | 11.1 |
| HCM LOS              | B   |    |      |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1310  | -   | -   | -   | 619   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -   | 0.051 |
| HCM Control Delay (s) | 7.8   | 0   | -   | -   | 11.1  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.2   |

HCM 6th TWSC  
3: Washburn Road /Site Ingress Driveway & Sunset Road

2022 Existing Condition  
Weekday Dismissal Peak Hour

| Intersection             |        |      |      |        |       |      |        |       |      |      |      |      |
|--------------------------|--------|------|------|--------|-------|------|--------|-------|------|------|------|------|
| Int Delay, s/veh         | 0.5    |      |      |        |       |      |        |       |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |      |        | ↕     |      |        | ↕     |      |      |      |      |
| Traffic Vol, veh/h       | 0      | 276  | 77   | 14     | 225   | 0    | 7      | 0     | 11   | 0    | 0    | 0    |
| Future Vol, veh/h        | 0      | 276  | 77   | 14     | 225   | 0    | 7      | 0     | 11   | 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         | 92     | 89   | 89   | 89     | 89    | 92   | 89     | 92    | 89   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2    | 1    | 0      | 3     | 2    | 0      | 2     | 0    | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 310  | 87   | 16     | 253   | 0    | 8      | 0     | 12   | 0    | 0    | 0    |
|                          |        |      |      |        |       |      |        |       |      |      |      |      |
| Major/Minor              | Major1 |      |      | Major2 |       |      | Minor1 |       |      |      |      |      |
| Conflicting Flow All     | 253    | 0    | 0    | 397    | 0     | 0    | 639    | 639   | 354  |      |      |      |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 354    | 354   | -    |      |      |      |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 285    | 285   | -    |      |      |      |
| Critical Hdwy            | 4.12   | -    | -    | 4.1    | -     | -    | 6.4    | 6.52  | 6.2  |      |      |      |
| Critical Hdwy Stg 1      | -      | -    | -    | -      | -     | -    | 5.4    | 5.52  | -    |      |      |      |
| Critical Hdwy Stg 2      | -      | -    | -    | -      | -     | -    | 5.4    | 5.52  | -    |      |      |      |
| Follow-up Hdwy           | 2.218  | -    | -    | 2.2    | -     | -    | 3.5    | 4.018 | 3.3  |      |      |      |
| Pot Cap-1 Maneuver       | 1312   | -    | -    | 1173   | -     | -    | 443    | 394   | 694  |      |      |      |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 715    | 630   | -    |      |      |      |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 768    | 676   | -    |      |      |      |
| Platoon blocked, %       |        | -    | -    |        | -     | -    |        |       |      |      |      |      |
| Mov Cap-1 Maneuver       | 1312   | -    | -    | 1173   | -     | -    | 436    | 0     | 694  |      |      |      |
| Mov Cap-2 Maneuver       | -      | -    | -    | -      | -     | -    | 436    | 0     | -    |      |      |      |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 715    | 0     | -    |      |      |      |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 756    | 0     | -    |      |      |      |
|                          |        |      |      |        |       |      |        |       |      |      |      |      |
| Approach                 | EB     |      |      | WB     |       |      | NB     |       |      |      |      |      |
| HCM Control Delay, s     | 0      |      |      | 0.5    |       |      | 11.6   |       |      |      |      |      |
| HCM LOS                  |        |      |      |        |       |      | B      |       |      |      |      |      |
|                          |        |      |      |        |       |      |        |       |      |      |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBL  | EBT  | EBR    | WBL   | WBT  | WBR    |       |      |      |      |      |
| Capacity (veh/h)         | 564    | 1312 | -    | -      | 1173  | -    | -      |       |      |      |      |      |
| HCM Lane V/C Ratio       | 0.036  | -    | -    | -      | 0.013 | -    | -      |       |      |      |      |      |
| HCM Control Delay (s)    | 11.6   | 0    | -    | -      | 8.1   | 0    | -      |       |      |      |      |      |
| HCM Lane LOS             | B      | A    | -    | -      | A     | A    | -      |       |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.1    | 0    | -    | -      | 0     | -    | -      |       |      |      |      |      |

HCM 6th TWSC  
4: West Parkway & Sunset Road

2022 Existing Condition  
Weekday Dismissal Peak Hour

| Intersection             |                                                                                   |          |                                                                                   |       |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.1                                                                               |          |                                                                                   |       |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR   | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |          |  |       |  |  |
| Traffic Vol, veh/h       | 114                                                                               | 73       | 202                                                                               | 153   | 95                                                                                | 265                                                                               |
| Future Vol, veh/h        | 114                                                                               | 73       | 202                                                                               | 153   | 95                                                                                | 265                                                                               |
| Conflicting Peds, #/hr   | 1                                                                                 | 0        | 0                                                                                 | 5     | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free  | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None  | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -     | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 89                                                                                | 89       | 89                                                                                | 89    | 89                                                                                | 89                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 2        | 3                                                                                 | 2     | 2                                                                                 | 0                                                                                 |
| Mvmt Flow                | 128                                                                               | 82       | 227                                                                               | 172   | 107                                                                               | 298                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |       |                                                                                   |                                                                                   |
| Conflicting Flow All     | 831                                                                               | 318      | 0                                                                                 | 0     | 404                                                                               | 0                                                                                 |
| Stage 1                  | 318                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                  | 513                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 5.9                                                                               | 5.8      | -                                                                                 | -     | 4.12                                                                              | -                                                                                 |
| Critical Hdwy Stg 1      | 5.4                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.4                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.5                                                                               | 3.318    | -                                                                                 | -     | 2.218                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver       | 384                                                                               | 750      | -                                                                                 | -     | 1155                                                                              | -                                                                                 |
| Stage 1                  | 742                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                  | 605                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -     |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 346                                                                               | 746      | -                                                                                 | -     | 1150                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver       | 346                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 1                  | 738                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                  | 548                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB       | SB                                                                                |       |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 20.6                                                                              | 0        | 2.2                                                                               |       |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |       |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT   |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 438                                                                               | 1150  | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.48                                                                              | 0.093 | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 20.6                                                                              | 8.4   | -                                                                                 |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A     | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 2.5                                                                               | 0.3   | -                                                                                 |                                                                                   |

# HCM 6th Signalized Intersection Summary

## 1: Boulevard & Sunset Road

2024 No Build Condition  
Weekday Arrival Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 78                                                                                | 155                                                                               | 40                                                                                | 4                                                                                 | 110                                                                               | 7                                                                                 | 64                                                                                 | 307                                                                                 | 30                                                                                  | 20                                                                                  | 246                                                                                 | 91                                                                                  |
| Future Volume (veh/h)        | 78                                                                                | 155                                                                               | 40                                                                                | 4                                                                                 | 110                                                                               | 7                                                                                 | 64                                                                                 | 307                                                                                 | 30                                                                                  | 20                                                                                  | 246                                                                                 | 91                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 0.99                                                                              |                                                                                   | 0.98                                                                              | 0.99                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 2051                                                                              | 2051                                                                              | 2034                                                                              | 2100                                                                              | 2018                                                                              | 1936                                                                              | 2067                                                                               | 1969                                                                                | 2100                                                                                | 2100                                                                                | 1985                                                                                | 2034                                                                                |
| Adj Flow Rate, veh/h         | 115                                                                               | 228                                                                               | 43                                                                                | 6                                                                                 | 162                                                                               | 9                                                                                 | 94                                                                                 | 451                                                                                 | 38                                                                                  | 29                                                                                  | 362                                                                                 | 50                                                                                  |
| Peak Hour Factor             | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                               | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 4                                                                                 | 0                                                                                 | 5                                                                                 | 10                                                                                | 2                                                                                  | 8                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   | 4                                                                                   |
| Cap, veh/h                   | 170                                                                               | 278                                                                               | 50                                                                                | 47                                                                                | 464                                                                               | 25                                                                                | 184                                                                                | 868                                                                                 | 70                                                                                  | 85                                                                                  | 984                                                                                 | 131                                                                                 |
| Arrive On Green              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.62                                                                               | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                | 0.62                                                                                |
| Sat Flow, veh/h              | 474                                                                               | 1117                                                                              | 199                                                                               | 21                                                                                | 1869                                                                              | 101                                                                               | 222                                                                                | 1407                                                                                | 114                                                                                 | 67                                                                                  | 1594                                                                                | 212                                                                                 |
| Grp Volume(v), veh/h         | 386                                                                               | 0                                                                                 | 0                                                                                 | 177                                                                               | 0                                                                                 | 0                                                                                 | 583                                                                                | 0                                                                                   | 0                                                                                   | 441                                                                                 | 0                                                                                   | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1791                                                                              | 0                                                                                 | 0                                                                                 | 1991                                                                              | 0                                                                                 | 0                                                                                 | 1742                                                                               | 0                                                                                   | 0                                                                                   | 1874                                                                                | 0                                                                                   | 0                                                                                   |
| Q Serve(g_s), s              | 11.7                                                                              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 5.3                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 18.2                                                                              | 0.0                                                                               | 0.0                                                                               | 6.5                                                                               | 0.0                                                                               | 0.0                                                                               | 15.6                                                                               | 0.0                                                                                 | 0.0                                                                                 | 10.0                                                                                | 0.0                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 0.30                                                                              |                                                                                   | 0.11                                                                              | 0.03                                                                              |                                                                                   | 0.05                                                                              | 0.16                                                                               |                                                                                     | 0.07                                                                                | 0.07                                                                                |                                                                                     | 0.11                                                                                |
| Lane Grp Cap(c), veh/h       | 497                                                                               | 0                                                                                 | 0                                                                                 | 537                                                                               | 0                                                                                 | 0                                                                                 | 1122                                                                               | 0                                                                                   | 0                                                                                   | 1199                                                                                | 0                                                                                   | 0                                                                                   |
| V/C Ratio(X)                 | 0.78                                                                              | 0.00                                                                              | 0.00                                                                              | 0.33                                                                              | 0.00                                                                              | 0.00                                                                              | 0.52                                                                               | 0.00                                                                                | 0.00                                                                                | 0.37                                                                                | 0.00                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 707                                                                               | 0                                                                                 | 0                                                                                 | 774                                                                               | 0                                                                                 | 0                                                                                 | 1122                                                                               | 0                                                                                   | 0                                                                                   | 1199                                                                                | 0                                                                                   | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                               | 0.00                                                                                | 0.00                                                                                | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 31.8                                                                              | 0.0                                                                               | 0.0                                                                               | 27.6                                                                              | 0.0                                                                               | 0.0                                                                               | 9.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 8.5                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 3.5                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                               | 0.0                                                                               | 0.0                                                                               | 0.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 12.7                                                                              | 0.0                                                                               | 0.0                                                                               | 5.5                                                                               | 0.0                                                                               | 0.0                                                                               | 9.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 6.4                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 35.3                                                                              | 0.0                                                                               | 0.0                                                                               | 28.0                                                                              | 0.0                                                                               | 0.0                                                                               | 9.8                                                                                | 0.0                                                                                 | 0.0                                                                                 | 8.6                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | D                                                                                 | A                                                                                 | A                                                                                 | C                                                                                 | A                                                                                 | A                                                                                 | A                                                                                  | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 386                                                                               |                                                                                   |                                                                                   | 177                                                                               |                                                                                   |                                                                                    | 583                                                                                 |                                                                                     |                                                                                     | 441                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 35.3                                                                              |                                                                                   |                                                                                   | 28.0                                                                              |                                                                                   |                                                                                    | 9.8                                                                                 |                                                                                     |                                                                                     | 8.6                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 61.0                                                                              |                                                                                   | 28.2                                                                              |                                                                                   | 61.0                                                                              |                                                                                    | 28.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                    | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 55.0                                                                              |                                                                                   | 33.0                                                                              |                                                                                   | 55.0                                                                              |                                                                                    | 33.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 17.6                                                                              |                                                                                   | 20.2                                                                              |                                                                                   | 12.0                                                                              |                                                                                    | 8.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 4.4                                                                               |                                                                                   | 1.9                                                                               |                                                                                   | 3.0                                                                               |                                                                                    | 0.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   |                                                                                   | 17.7                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
2: Sunset Road & Roome Avenue

2024 No Build Condition  
Weekday Arrival Peak Hour

| Intersection             |      |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8  |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL  | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |      |  |  |      |  |      |
| Traffic Vol, veh/h       | 20   | 258                                                                               | 218                                                                               | 18   | 12                                                                                | 6    |
| Future Vol, veh/h        | 20   | 258                                                                               | 218                                                                               | 18   | 12                                                                                | 6    |
| Conflicting Peds, #/hr   | 4    | 0                                                                                 | 0                                                                                 | 4    | 0                                                                                 | 2    |
| 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         | 68   | 68                                                                                | 68                                                                                | 68   | 68                                                                                | 68   |
| Heavy Vehicles, %        | 0    | 3                                                                                 | 4                                                                                 | 0    | 0                                                                                 | 0    |
| Mvmt Flow                | 29   | 379                                                                               | 321                                                                               | 26   | 18                                                                                | 9    |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 351    | 0      | 0 775 340   |
| Stage 1              | -      | -      | - - 338 -   |
| Stage 2              | -      | -      | - - 437 -   |
| Critical Hdwy        | 4.1    | -      | - - 6.6 5.7 |
| Critical Hdwy Stg 1  | -      | -      | - - 5.4 -   |
| Critical Hdwy Stg 2  | -      | -      | - - 5.4 -   |
| Follow-up Hdwy       | 2.2    | -      | - - 3.5 3.3 |
| Pot Cap-1 Maneuver   | 1219   | -      | - - 354 741 |
| Stage 1              | -      | -      | - - 727 -   |
| Stage 2              | -      | -      | - - 655 -   |
| Platoon blocked, %   |        | -      | - -         |
| Mov Cap-1 Maneuver   | 1214   | -      | - - 341 737 |
| Mov Cap-2 Maneuver   | -      | -      | - - 341 -   |
| Stage 1              | -      | -      | - - 702 -   |
| Stage 2              | -      | -      | - - 652 -   |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.6 | 0  | 14.3 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1214  | -   | -   | -   | 415   |
| HCM Lane V/C Ratio    | 0.024 | -   | -   | -   | 0.064 |
| HCM Control Delay (s) | 8     | 0   | -   | -   | 14.3  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.2   |



HCM 6th TWSC  
3: Washburn Road /Site Ingress Driveway & Sunset Road

2024 No Build Condition  
Weekday Arrival Peak Hour

| Intersection             |        |              |        |       |              |        |      |              |      |      |      |      |
|--------------------------|--------|--------------|--------|-------|--------------|--------|------|--------------|------|------|------|------|
| Int Delay, s/veh         | 0.9    |              |        |       |              |        |      |              |      |      |      |      |
| Movement                 | EBL    | EBT          | EBR    | WBL   | WBT          | WBR    | NBL  | NBT          | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | <div>↕</div> |        |       | <div>↕</div> |        |      | <div>↕</div> |      |      |      |      |
| Traffic Vol, veh/h       | 0      | 258          | 46     | 7     | 217          | 0      | 15   | 0            | 20   | 0    | 0    | 0    |
| Future Vol, veh/h        | 0      | 258          | 46     | 7     | 217          | 0      | 15   | 0            | 20   | 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         | 92     | 68           | 68     | 68    | 68           | 92     | 68   | 92           | 68   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 0            | 3      | 4     | 0            | 2      | 0    | 2            | 0    | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 379          | 68     | 10    | 319          | 0      | 22   | 0            | 29   | 0    | 0    | 0    |
|                          |        |              |        |       |              |        |      |              |      |      |      |      |
| Major/Minor              | Major1 |              | Major2 |       |              | Minor1 |      |              |      |      |      |      |
| Conflicting Flow All     | 319    | 0            | 0      | 447   | 0            | 0      | 752  | 752          | 413  |      |      |      |
| Stage 1                  | -      | -            | -      | -     | -            | -      | 413  | 413          | -    |      |      |      |
| Stage 2                  | -      | -            | -      | -     | -            | -      | 339  | 339          | -    |      |      |      |
| Critical Hdwy            | 4.12   | -            | -      | 4.14  | -            | -      | 6.4  | 6.52         | 6.2  |      |      |      |
| Critical Hdwy Stg 1      | -      | -            | -      | -     | -            | -      | 5.4  | 5.52         | -    |      |      |      |
| Critical Hdwy Stg 2      | -      | -            | -      | -     | -            | -      | 5.4  | 5.52         | -    |      |      |      |
| Follow-up Hdwy           | 2.218  | -            | -      | 2.236 | -            | -      | 3.5  | 4.018        | 3.3  |      |      |      |
| Pot Cap-1 Maneuver       | 1241   | -            | -      | 1103  | -            | -      | 381  | 339          | 643  |      |      |      |
| Stage 1                  | -      | -            | -      | -     | -            | -      | 672  | 594          | -    |      |      |      |
| Stage 2                  | -      | -            | -      | -     | -            | -      | 726  | 640          | -    |      |      |      |
| Platoon blocked, %       |        | -            | -      |       | -            | -      |      |              |      |      |      |      |
| Mov Cap-1 Maneuver       | 1241   | -            | -      | 1103  | -            | -      | 377  | 0            | 643  |      |      |      |
| Mov Cap-2 Maneuver       | -      | -            | -      | -     | -            | -      | 377  | 0            | -    |      |      |      |
| Stage 1                  | -      | -            | -      | -     | -            | -      | 672  | 0            | -    |      |      |      |
| Stage 2                  | -      | -            | -      | -     | -            | -      | 718  | 0            | -    |      |      |      |
|                          |        |              |        |       |              |        |      |              |      |      |      |      |
| Approach                 | EB     |              | WB     |       |              | NB     |      |              |      |      |      |      |
| HCM Control Delay, s     | 0      |              | 0.3    |       |              | 13.1   |      |              |      |      |      |      |
| HCM LOS                  |        |              |        |       |              | B      |      |              |      |      |      |      |
|                          |        |              |        |       |              |        |      |              |      |      |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBL          | EBT    | EBR   | WBL          | WBT    | WBR  |              |      |      |      |      |
| Capacity (veh/h)         | 494    | 1241         | -      | -     | 1103         | -      | -    |              |      |      |      |      |
| HCM Lane V/C Ratio       | 0.104  | -            | -      | -     | 0.009        | -      | -    |              |      |      |      |      |
| HCM Control Delay (s)    | 13.1   | 0            | -      | -     | 8.3          | 0      | -    |              |      |      |      |      |
| HCM Lane LOS             | B      | A            | -      | -     | A            | A      | -    |              |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.3    | 0            | -      | -     | 0            | -      | -    |              |      |      |      |      |

HCM 6th TWSC  
4: West Parkway & Sunset Road

2024 No Build Condition  
Weekday Arrival Peak Hour

| Intersection             |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 7.5                                                                               |      |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |      |  |      |  |  |
| Traffic Vol, veh/h       | 70                                                                                | 33   | 131                                                                               | 204  | 130                                                                               | 296                                                                               |
| Future Vol, veh/h        | 70                                                                                | 33   | 131                                                                               | 204  | 130                                                                               | 296                                                                               |
| Conflicting Peds, #/hr   | 1                                                                                 | 0    | 0                                                                                 | 5    | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 68                                                                                | 25   | 68                                                                                | 68   | 68                                                                                | 68                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 11   | 5                                                                                 | 1    | 4                                                                                 | 4                                                                                 |
| Mvmt Flow                | 103                                                                               | 132  | 193                                                                               | 300  | 191                                                                               | 435                                                                               |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |   |
|----------------------|--------|--------|--------|---|-------|---|
| Conflicting Flow All | 1166   | 348    | 0      | 0 | 498   | 0 |
| Stage 1              | 348    | -      | -      | - | -     | - |
| Stage 2              | 818    | -      | -      | - | -     | - |
| Critical Hdwy        | 5.9    | 5.8    | -      | - | 4.14  | - |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     | - |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     | - |
| Follow-up Hdwy       | 3.518  | 3.399  | -      | - | 2.236 | - |
| Pot Cap-1 Maneuver   | 254    | 709    | -      | - | 1056  | - |
| Stage 1              | 715    | -      | -      | - | -     | - |
| Stage 2              | 434    | -      | -      | - | -     | - |
| Platoon blocked, %   |        |        | -      | - |       | - |
| Mov Cap-1 Maneuver   | 207    | 706    | -      | - | 1051  | - |
| Mov Cap-2 Maneuver   | 207    | -      | -      | - | -     | - |
| Stage 1              | 711    | -      | -      | - | -     | - |
| Stage 2              | 355    | -      | -      | - | -     | - |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 35.5 | 0  | 2.8 |
| HCM LOS              | E    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 343   | 1051  |
| HCM Lane V/C Ratio    | -   | -        | 0.685 | 0.182 |
| HCM Control Delay (s) | -   | -        | 35.5  | 9.2   |
| HCM Lane LOS          | -   | -        | E     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 4.8   | 0.7   |

# HCM 6th Signalized Intersection Summary

## 1: Boulevard & Sunset Road

2024 No-Build Condition  
Weekday Dismissal Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 82                                                                                | 100                                                                               | 21                                                                                | 13                                                                                | 94                                                                                | 21                                                                                | 40                                                                                 | 389                                                                                 | 29                                                                                  | 11                                                                                  | 246                                                                                 | 46                                                                                  |
| Future Volume (veh/h)        | 82                                                                                | 100                                                                               | 21                                                                                | 13                                                                                | 94                                                                                | 21                                                                                | 40                                                                                 | 389                                                                                 | 29                                                                                  | 11                                                                                  | 246                                                                                 | 46                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.96                                                                              | 0.98                                                                              |                                                                                   | 0.96                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 2100                                                                              | 2067                                                                              | 1772                                                                              | 2100                                                                              | 2084                                                                              | 2100                                                                              | 2051                                                                               | 2100                                                                                | 2034                                                                                | 2100                                                                                | 2002                                                                                | 2100                                                                                |
| Adj Flow Rate, veh/h         | 92                                                                                | 112                                                                               | 12                                                                                | 15                                                                                | 106                                                                               | 23                                                                                | 45                                                                                 | 437                                                                                 | 29                                                                                  | 12                                                                                  | 276                                                                                 | -12                                                                                 |
| Peak Hour Factor             | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                               | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 2                                                                                 | 20                                                                                | 0                                                                                 | 1                                                                                 | 0                                                                                 | 3                                                                                  | 0                                                                                   | 4                                                                                   | 0                                                                                   | 6                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 169                                                                               | 155                                                                               | 15                                                                                | 67                                                                                | 240                                                                               | 49                                                                                | 128                                                                                | 1235                                                                                | 79                                                                                  | 72                                                                                  | 1062                                                                                | 0                                                                                   |
| Arrive On Green              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.15                                                                              | 0.70                                                                               | 0.70                                                                                | 0.70                                                                                | 0.70                                                                                | 0.70                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 685                                                                               | 1019                                                                              | 100                                                                               | 106                                                                               | 1574                                                                              | 319                                                                               | 113                                                                                | 1776                                                                                | 114                                                                                 | 37                                                                                  | 2029                                                                                | -86                                                                                 |
| Grp Volume(v), veh/h         | 216                                                                               | 0                                                                                 | 0                                                                                 | 144                                                                               | 0                                                                                 | 0                                                                                 | 511                                                                                | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1804                                                                              | 0                                                                                 | 0                                                                                 | 2000                                                                              | 0                                                                                 | 0                                                                                 | 2002                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Q Serve(g_s), s              | 3.7                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 8.9                                                                               | 0.0                                                                               | 0.0                                                                               | 5.2                                                                               | 0.0                                                                               | 0.0                                                                               | 7.8                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 0.43                                                                              |                                                                                   | 0.06                                                                              | 0.10                                                                              |                                                                                   | 0.16                                                                              | 0.09                                                                               |                                                                                     | 0.06                                                                                | 0.04                                                                                |                                                                                     | -0.04                                                                               |
| Lane Grp Cap(c), veh/h       | 340                                                                               | 0                                                                                 | 0                                                                                 | 355                                                                               | 0                                                                                 | 0                                                                                 | 1443                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| V/C Ratio(X)                 | 0.64                                                                              | 0.00                                                                              | 0.00                                                                              | 0.41                                                                              | 0.00                                                                              | 0.00                                                                              | 0.35                                                                               | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 784                                                                               | 0                                                                                 | 0                                                                                 | 863                                                                               | 0                                                                                 | 0                                                                                 | 1443                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                               | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 32.0                                                                              | 0.0                                                                               | 0.0                                                                               | 30.6                                                                              | 0.0                                                                               | 0.0                                                                               | 4.8                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 2.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.7                                                                               | 0.0                                                                               | 0.0                                                                               | 0.1                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 7.1                                                                               | 0.0                                                                               | 0.0                                                                               | 4.5                                                                               | 0.0                                                                               | 0.0                                                                               | 4.2                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 33.9                                                                              | 0.0                                                                               | 0.0                                                                               | 31.3                                                                              | 0.0                                                                               | 0.0                                                                               | 5.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | C                                                                                 | A                                                                                 | A                                                                                 | C                                                                                 | A                                                                                 | A                                                                                 | A                                                                                  | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 216                                                                               |                                                                                   |                                                                                   | 144                                                                               |                                                                                   |                                                                                    | 511                                                                                 |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 33.9                                                                              |                                                                                   |                                                                                   | 31.3                                                                              |                                                                                   |                                                                                    | 5.0                                                                                 |                                                                                     |                                                                                     | 0.0                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 61.0                                                                              |                                                                                   | 18.0                                                                              |                                                                                   | 61.0                                                                              |                                                                                    | 18.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                    | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 55.0                                                                              |                                                                                   | 33.0                                                                              |                                                                                   | 55.0                                                                              |                                                                                    | 33.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 9.8                                                                               |                                                                                   | 10.9                                                                              |                                                                                   | 0.0                                                                               |                                                                                    | 7.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 3.5                                                                               |                                                                                   | 1.2                                                                               |                                                                                   | 0.0                                                                               |                                                                                    | 0.7                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   |                                                                                   | 16.5                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
2: Sunset Road & Roome Avenue

2024 No-Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8    |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |        |  |  |        |  |      |
| Traffic Vol, veh/h       | 14     | 278                                                                               | 225                                                                               | 8      | 10                                                                                | 18   |
| Future Vol, veh/h        | 14     | 278                                                                               | 225                                                                               | 8      | 10                                                                                | 18   |
| Conflicting Peds, #/hr   | 4      | 0                                                                                 | 0                                                                                 | 4      | 0                                                                                 | 2    |
| 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         | 89     | 89                                                                                | 89                                                                                | 89     | 89                                                                                | 89   |
| Heavy Vehicles, %        | 0      | 2                                                                                 | 3                                                                                 | 0      | 10                                                                                | 0    |
| Mvmt Flow                | 16     | 312                                                                               | 253                                                                               | 9      | 11                                                                                | 20   |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 266    | 0                                                                                 | -                                                                                 | 0      | 606                                                                               | 264  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 262                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 344                                                                               | -    |
| Critical Hdwy            | 4.1    | -                                                                                 | -                                                                                 | -      | 6.6                                                                               | 5.7  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.5                                                                               | -    |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.5                                                                               | -    |
| Follow-up Hdwy           | 2.2    | -                                                                                 | -                                                                                 | -      | 3.59                                                                              | 3.3  |
| Pot Cap-1 Maneuver       | 1310   | -                                                                                 | -                                                                                 | -      | 440                                                                               | 809  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 764                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 700                                                                               | -    |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 1305   | -                                                                                 | -                                                                                 | -      | 430                                                                               | 804  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 430                                                                               | -    |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 749                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 697                                                                               | -    |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0.4    | 0                                                                                 |                                                                                   | 11.2   |                                                                                   |      |
| HCM LOS                  |        |                                                                                   |                                                                                   | B      |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 1305   | -                                                                                 | -                                                                                 | -      | 613                                                                               |      |
| HCM Lane V/C Ratio       | 0.012  | -                                                                                 | -                                                                                 | -      | 0.051                                                                             |      |
| HCM Control Delay (s)    | 7.8    | 0                                                                                 | -                                                                                 | -      | 11.2                                                                              |      |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -      | B                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 0.2                                                                               |      |

HCM 6th TWSC  
3: Washburn Road /Site Ingress Driveway & Sunset Road

2024 No-Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |        |      |      |        |       |      |        |       |      |      |      |      |
|--------------------------|--------|------|------|--------|-------|------|--------|-------|------|------|------|------|
| Int Delay, s/veh         | 0.5    |      |      |        |       |      |        |       |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |      |        | ↕     |      |        | ↕     |      |      |      |      |
| Traffic Vol, veh/h       | 0      | 282  | 79   | 14     | 230   | 0    | 7      | 0     | 11   | 0    | 0    | 0    |
| Future Vol, veh/h        | 0      | 282  | 79   | 14     | 230   | 0    | 7      | 0     | 11   | 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         | 92     | 89   | 89   | 89     | 89    | 92   | 89     | 92    | 89   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2    | 1    | 0      | 3     | 2    | 0      | 2     | 0    | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 317  | 89   | 16     | 258   | 0    | 8      | 0     | 12   | 0    | 0    | 0    |
|                          |        |      |      |        |       |      |        |       |      |      |      |      |
| Major/Minor              | Major1 |      |      | Major2 |       |      | Minor1 |       |      |      |      |      |
| Conflicting Flow All     | 258    | 0    | 0    | 406    | 0     | 0    | 652    | 652   | 362  |      |      |      |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 362    | 362   | -    |      |      |      |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 290    | 290   | -    |      |      |      |
| Critical Hdwy            | 4.12   | -    | -    | 4.1    | -     | -    | 6.4    | 6.52  | 6.2  |      |      |      |
| Critical Hdwy Stg 1      | -      | -    | -    | -      | -     | -    | 5.4    | 5.52  | -    |      |      |      |
| Critical Hdwy Stg 2      | -      | -    | -    | -      | -     | -    | 5.4    | 5.52  | -    |      |      |      |
| Follow-up Hdwy           | 2.218  | -    | -    | 2.2    | -     | -    | 3.5    | 4.018 | 3.3  |      |      |      |
| Pot Cap-1 Maneuver       | 1307   | -    | -    | 1164   | -     | -    | 436    | 387   | 687  |      |      |      |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 709    | 625   | -    |      |      |      |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 764    | 672   | -    |      |      |      |
| Platoon blocked, %       |        | -    | -    |        | -     | -    |        |       |      |      |      |      |
| Mov Cap-1 Maneuver       | 1307   | -    | -    | 1164   | -     | -    | 429    | 0     | 687  |      |      |      |
| Mov Cap-2 Maneuver       | -      | -    | -    | -      | -     | -    | 429    | 0     | -    |      |      |      |
| Stage 1                  | -      | -    | -    | -      | -     | -    | 709    | 0     | -    |      |      |      |
| Stage 2                  | -      | -    | -    | -      | -     | -    | 752    | 0     | -    |      |      |      |
|                          |        |      |      |        |       |      |        |       |      |      |      |      |
| Approach                 | EB     |      |      | WB     |       |      | NB     |       |      |      |      |      |
| HCM Control Delay, s     | 0      |      |      | 0.5    |       |      | 11.7   |       |      |      |      |      |
| HCM LOS                  |        |      |      |        |       |      | B      |       |      |      |      |      |
|                          |        |      |      |        |       |      |        |       |      |      |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBL  | EBT  | EBR    | WBL   | WBT  | WBR    |       |      |      |      |      |
| Capacity (veh/h)         | 557    | 1307 | -    | -      | 1164  | -    | -      |       |      |      |      |      |
| HCM Lane V/C Ratio       | 0.036  | -    | -    | -      | 0.014 | -    | -      |       |      |      |      |      |
| HCM Control Delay (s)    | 11.7   | 0    | -    | -      | 8.1   | 0    | -      |       |      |      |      |      |
| HCM Lane LOS             | B      | A    | -    | -      | A     | A    | -      |       |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.1    | 0    | -    | -      | 0     | -    | -      |       |      |      |      |      |

HCM 6th TWSC  
4: West Parkway & Sunset Road

2024 No-Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |                                                                                   |        |                                                                                   |        |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.3                                                                               |        |                                                                                   |        |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR    | NBT                                                                               | NBR    | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |        |  |        |  |  |
| Traffic Vol, veh/h       | 116                                                                               | 74     | 206                                                                               | 156    | 97                                                                                | 270                                                                               |
| Future Vol, veh/h        | 116                                                                               | 74     | 206                                                                               | 156    | 97                                                                                | 270                                                                               |
| Conflicting Peds, #/hr   | 1                                                                                 | 0      | 0                                                                                 | 5      | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop   | Free                                                                              | Free   | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None   | -                                                                                 | None   | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -      | -                                                                                 | -      | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 89                                                                                | 89     | 89                                                                                | 89     | 89                                                                                | 89                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 2      | 3                                                                                 | 2      | 2                                                                                 | 0                                                                                 |
| Mvmt Flow                | 130                                                                               | 83     | 231                                                                               | 175    | 109                                                                               | 303                                                                               |
|                          |                                                                                   |        |                                                                                   |        |                                                                                   |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1 |                                                                                   | Major2 |                                                                                   |                                                                                   |
| Conflicting Flow All     | 846                                                                               | 324    | 0                                                                                 | 0      | 411                                                                               | 0                                                                                 |
| Stage 1                  | 324                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 2                  | 522                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 5.9                                                                               | 5.8    | -                                                                                 | -      | 4.12                                                                              | -                                                                                 |
| Critical Hdwy Stg 1      | 5.4                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.4                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.5                                                                               | 3.318  | -                                                                                 | -      | 2.218                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver       | 377                                                                               | 745    | -                                                                                 | -      | 1148                                                                              | -                                                                                 |
| Stage 1                  | 738                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 2                  | 599                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |        | -                                                                                 | -      |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 339                                                                               | 741    | -                                                                                 | -      | 1143                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver       | 339                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 1                  | 734                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 2                  | 541                                                                               | -      | -                                                                                 | -      | -                                                                                 | -                                                                                 |
|                          |                                                                                   |        |                                                                                   |        |                                                                                   |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |                                                                                   |                                                                                   |
| Approach                 | WB                                                                                | NB     |                                                                                   | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 21.3                                                                              | 0      |                                                                                   | 2.2    |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |        |                                                                                   |        |                                                                                   |                                                                                   |
|                          |                                                                                   |        |                                                                                   |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    |                                                                                   | NBT    | NBRWBLn1                                                                          | SBL    | SBT                                                                               |                                                                                   |
| Capacity (veh/h)         |                                                                                   | -      | -                                                                                 | 430    | 1143                                                                              | -                                                                                 |
| HCM Lane V/C Ratio       |                                                                                   | -      | -                                                                                 | 0.496  | 0.095                                                                             | -                                                                                 |
| HCM Control Delay (s)    |                                                                                   | -      | -                                                                                 | 21.3   | 8.5                                                                               | -                                                                                 |
| HCM Lane LOS             |                                                                                   | -      | -                                                                                 | C      | A                                                                                 | -                                                                                 |
| HCM 95th %tile Q(veh)    |                                                                                   | -      | -                                                                                 | 2.7    | 0.3                                                                               | -                                                                                 |

# HCM 6th Signalized Intersection Summary

## 1: Boulevard & Sunset Road

2024 Build Condition  
Weekday Arrival Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 80                                                                                | 156                                                                               | 44                                                                                | 4                                                                                 | 112                                                                               | 7                                                                                 | 75                                                                                 | 307                                                                                 | 30                                                                                  | 20                                                                                  | 246                                                                                 | 98                                                                                  |
| Future Volume (veh/h)        | 80                                                                                | 156                                                                               | 44                                                                                | 4                                                                                 | 112                                                                               | 7                                                                                 | 75                                                                                 | 307                                                                                 | 30                                                                                  | 20                                                                                  | 246                                                                                 | 98                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 0.99                                                                              |                                                                                   | 0.98                                                                              | 0.99                                                                              |                                                                                   | 0.98                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 2051                                                                              | 2051                                                                              | 2034                                                                              | 2100                                                                              | 2018                                                                              | 1936                                                                              | 2067                                                                               | 1969                                                                                | 2100                                                                                | 2100                                                                                | 1985                                                                                | 2034                                                                                |
| Adj Flow Rate, veh/h         | 118                                                                               | 229                                                                               | 49                                                                                | 6                                                                                 | 165                                                                               | 9                                                                                 | 110                                                                                | 451                                                                                 | 38                                                                                  | 29                                                                                  | 362                                                                                 | 60                                                                                  |
| Peak Hour Factor             | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                               | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                |
| Percent Heavy Veh, %         | 3                                                                                 | 3                                                                                 | 4                                                                                 | 0                                                                                 | 5                                                                                 | 10                                                                                | 2                                                                                  | 8                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   | 4                                                                                   |
| Cap, veh/h                   | 173                                                                               | 277                                                                               | 56                                                                                | 47                                                                                | 477                                                                               | 25                                                                                | 205                                                                                | 826                                                                                 | 67                                                                                  | 82                                                                                  | 952                                                                                 | 152                                                                                 |
| Arrive On Green              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.25                                                                              | 0.61                                                                               | 0.61                                                                                | 0.61                                                                                | 0.61                                                                                | 0.61                                                                                | 0.61                                                                                |
| Sat Flow, veh/h              | 474                                                                               | 1087                                                                              | 220                                                                               | 21                                                                                | 1872                                                                              | 100                                                                               | 258                                                                                | 1350                                                                                | 109                                                                                 | 65                                                                                  | 1556                                                                                | 249                                                                                 |
| Grp Volume(v), veh/h         | 396                                                                               | 0                                                                                 | 0                                                                                 | 180                                                                               | 0                                                                                 | 0                                                                                 | 599                                                                                | 0                                                                                   | 0                                                                                   | 451                                                                                 | 0                                                                                   | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 0                                                                                 | 0                                                                                 | 1992                                                                              | 0                                                                                 | 0                                                                                 | 1717                                                                               | 0                                                                                   | 0                                                                                   | 1870                                                                                | 0                                                                                   | 0                                                                                   |
| Q Serve(g_s), s              | 12.3                                                                              | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 6.2                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 19.0                                                                              | 0.0                                                                               | 0.0                                                                               | 6.6                                                                               | 0.0                                                                               | 0.0                                                                               | 16.8                                                                               | 0.0                                                                                 | 0.0                                                                                 | 10.6                                                                                | 0.0                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 0.30                                                                              |                                                                                   | 0.12                                                                              | 0.03                                                                              |                                                                                   | 0.05                                                                              | 0.18                                                                               |                                                                                     | 0.06                                                                                | 0.06                                                                                |                                                                                     | 0.13                                                                                |
| Lane Grp Cap(c), veh/h       | 506                                                                               | 0                                                                                 | 0                                                                                 | 549                                                                               | 0                                                                                 | 0                                                                                 | 1098                                                                               | 0                                                                                   | 0                                                                                   | 1187                                                                                | 0                                                                                   | 0                                                                                   |
| V/C Ratio(X)                 | 0.78                                                                              | 0.00                                                                              | 0.00                                                                              | 0.33                                                                              | 0.00                                                                              | 0.00                                                                              | 0.55                                                                               | 0.00                                                                                | 0.00                                                                                | 0.38                                                                                | 0.00                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 699                                                                               | 0                                                                                 | 0                                                                                 | 768                                                                               | 0                                                                                 | 0                                                                                 | 1098                                                                               | 0                                                                                   | 0                                                                                   | 1187                                                                                | 0                                                                                   | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                               | 0.00                                                                                | 0.00                                                                                | 1.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 31.8                                                                              | 0.0                                                                               | 0.0                                                                               | 27.4                                                                              | 0.0                                                                               | 0.0                                                                               | 9.9                                                                                | 0.0                                                                                 | 0.0                                                                                 | 8.8                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 4.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.3                                                                               | 0.0                                                                               | 0.0                                                                               | 0.6                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 13.2                                                                              | 0.0                                                                               | 0.0                                                                               | 5.6                                                                               | 0.0                                                                               | 0.0                                                                               | 9.6                                                                                | 0.0                                                                                 | 0.0                                                                                 | 6.8                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 35.7                                                                              | 0.0                                                                               | 0.0                                                                               | 27.8                                                                              | 0.0                                                                               | 0.0                                                                               | 10.4                                                                               | 0.0                                                                                 | 0.0                                                                                 | 9.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | D                                                                                 | A                                                                                 | A                                                                                 | C                                                                                 | A                                                                                 | A                                                                                 | B                                                                                  | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 396                                                                               |                                                                                   |                                                                                   | 180                                                                               |                                                                                   |                                                                                    | 599                                                                                 |                                                                                     |                                                                                     | 451                                                                                 |                                                                                     |
| Approach Delay, s/veh        |                                                                                   | 35.7                                                                              |                                                                                   |                                                                                   | 27.8                                                                              |                                                                                   |                                                                                    | 10.4                                                                                |                                                                                     |                                                                                     | 9.0                                                                                 |                                                                                     |
| Approach LOS                 |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 61.0                                                                              |                                                                                   | 28.9                                                                              |                                                                                   | 61.0                                                                              |                                                                                    | 28.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                    | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 55.0                                                                              |                                                                                   | 33.0                                                                              |                                                                                   | 55.0                                                                              |                                                                                    | 33.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 18.8                                                                              |                                                                                   | 21.0                                                                              |                                                                                   | 12.6                                                                              |                                                                                    | 8.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 4.6                                                                               |                                                                                   | 1.9                                                                               |                                                                                   | 3.1                                                                               |                                                                                    | 0.9                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   |                                                                                   | 18.1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
2: Sunset Road & Roome Avenue

2024 Build Condition  
Weekday Arrival Peak Hour

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8    |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |        |  |  |        |  |      |
| Traffic Vol, veh/h       | 21     | 265                                                                               | 238                                                                               | 18     | 12                                                                                | 8    |
| Future Vol, veh/h        | 21     | 265                                                                               | 238                                                                               | 18     | 12                                                                                | 8    |
| Conflicting Peds, #/hr   | 4      | 0                                                                                 | 0                                                                                 | 4      | 0                                                                                 | 2    |
| 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         | 68     | 68                                                                                | 68                                                                                | 68     | 68                                                                                | 68   |
| Heavy Vehicles, %        | 0      | 3                                                                                 | 4                                                                                 | 0      | 0                                                                                 | 0    |
| Mvmt Flow                | 31     | 390                                                                               | 350                                                                               | 26     | 18                                                                                | 12   |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 380    | 0                                                                                 | -                                                                                 | 0      | 819                                                                               | 369  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 367                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 452                                                                               | -    |
| Critical Hdwy            | 4.1    | -                                                                                 | -                                                                                 | -      | 6.6                                                                               | 5.7  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.4                                                                               | -    |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.4                                                                               | -    |
| Follow-up Hdwy           | 2.2    | -                                                                                 | -                                                                                 | -      | 3.5                                                                               | 3.3  |
| Pot Cap-1 Maneuver       | 1190   | -                                                                                 | -                                                                                 | -      | 332                                                                               | 717  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 705                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 645                                                                               | -    |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 1185   | -                                                                                 | -                                                                                 | -      | 318                                                                               | 713  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 318                                                                               | -    |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 679                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 642                                                                               | -    |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0.6    | 0                                                                                 |                                                                                   | 14.5   |                                                                                   |      |
| HCM LOS                  |        |                                                                                   |                                                                                   | B      |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 1185   | -                                                                                 | -                                                                                 | -      | 409                                                                               |      |
| HCM Lane V/C Ratio       | 0.026  | -                                                                                 | -                                                                                 | -      | 0.072                                                                             |      |
| HCM Control Delay (s)    | 8.1    | 0                                                                                 | -                                                                                 | -      | 14.5                                                                              |      |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -      | B                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0.1    | -                                                                                 | -                                                                                 | -      | 0.2                                                                               |      |



HCM 6th TWSC  
3: Washburn Road /Site Ingress Driveway & Sunset Road

2024 Build Condition  
Weekday Arrival Peak Hour

| Intersection             |        |      |        |       |       |        |      |       |      |      |      |      |
|--------------------------|--------|------|--------|-------|-------|--------|------|-------|------|------|------|------|
| Int Delay, s/veh         | 1      |      |        |       |       |        |      |       |      |      |      |      |
| Movement                 | EBL    | EBT  | EBR    | WBL   | WBT   | WBR    | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | ↕    |        |       | ↕     |        |      | ↕     |      |      |      |      |
| Traffic Vol, veh/h       | 11     | 266  | 47     | 7     | 217   | 22     | 15   | 2     | 20   | 0    | 0    | 0    |
| Future Vol, veh/h        | 11     | 266  | 47     | 7     | 217   | 22     | 15   | 2     | 20   | 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         | 92     | 68   | 68     | 68    | 68    | 92     | 68   | 92    | 68   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 0    | 3      | 4     | 0     | 2      | 0    | 2     | 0    | 2    | 2    | 2    |
| Mvmt Flow                | 12     | 391  | 69     | 10    | 319   | 24     | 22   | 2     | 29   | 0    | 0    | 0    |
|                          |        |      |        |       |       |        |      |       |      |      |      |      |
| Major/Minor              | Major1 |      | Major2 |       |       | Minor1 |      |       |      |      |      |      |
| Conflicting Flow All     | 343    | 0    | 0      | 460   | 0     | 0      | 801  | 813   | 426  |      |      |      |
| Stage 1                  | -      | -    | -      | -     | -     | -      | 450  | 450   | -    |      |      |      |
| Stage 2                  | -      | -    | -      | -     | -     | -      | 351  | 363   | -    |      |      |      |
| Critical Hdwy            | 4.12   | -    | -      | 4.14  | -     | -      | 6.4  | 6.52  | 6.2  |      |      |      |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | -     | -      | 5.4  | 5.52  | -    |      |      |      |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | -     | -      | 5.4  | 5.52  | -    |      |      |      |
| Follow-up Hdwy           | 2.218  | -    | -      | 2.236 | -     | -      | 3.5  | 4.018 | 3.3  |      |      |      |
| Pot Cap-1 Maneuver       | 1216   | -    | -      | 1091  | -     | -      | 356  | 313   | 633  |      |      |      |
| Stage 1                  | -      | -    | -      | -     | -     | -      | 647  | 572   | -    |      |      |      |
| Stage 2                  | -      | -    | -      | -     | -     | -      | 717  | 625   | -    |      |      |      |
| Platoon blocked, %       |        | -    | -      |       | -     | -      |      |       |      |      |      |      |
| Mov Cap-1 Maneuver       | 1216   | -    | -      | 1091  | -     | -      | 347  | 0     | 633  |      |      |      |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | -     | -      | 347  | 0     | -    |      |      |      |
| Stage 1                  | -      | -    | -      | -     | -     | -      | 639  | 0     | -    |      |      |      |
| Stage 2                  | -      | -    | -      | -     | -     | -      | 709  | 0     | -    |      |      |      |
|                          |        |      |        |       |       |        |      |       |      |      |      |      |
| Approach                 | EB     |      | WB     |       |       | NB     |      |       |      |      |      |      |
| HCM Control Delay, s     | 0.2    |      | 0.2    |       |       | 13.7   |      |       |      |      |      |      |
| HCM LOS                  |        |      |        |       |       | B      |      |       |      |      |      |      |
|                          |        |      |        |       |       |        |      |       |      |      |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBL  | EBT    | EBR   | WBL   | WBT    | WBR  |       |      |      |      |      |
| Capacity (veh/h)         | 468    | 1216 | -      | -     | 1091  | -      | -    |       |      |      |      |      |
| HCM Lane V/C Ratio       | 0.115  | 0.01 | -      | -     | 0.009 | -      | -    |       |      |      |      |      |
| HCM Control Delay (s)    | 13.7   | 8    | 0      | -     | 8.3   | 0      | -    |       |      |      |      |      |
| HCM Lane LOS             | B      | A    | A      | -     | A     | A      | -    |       |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.4    | 0    | -      | -     | 0     | -      | -    |       |      |      |      |      |

HCM 6th TWSC  
4: West Parkway & Sunset Road

2024 Build Condition  
Weekday Arrival Peak Hour

| Intersection             |                                                                                   |          |                                                                                   |       |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 8.3                                                                               |          |                                                                                   |       |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR   | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |          |  |       |  |  |
| Traffic Vol, veh/h       | 72                                                                                | 34       | 131                                                                               | 211   | 134                                                                               | 296                                                                               |
| Future Vol, veh/h        | 72                                                                                | 34       | 131                                                                               | 211   | 134                                                                               | 296                                                                               |
| Conflicting Peds, #/hr   | 1                                                                                 | 0        | 0                                                                                 | 5     | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free  | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None  | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -     | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -     | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 68                                                                                | 25       | 68                                                                                | 68    | 68                                                                                | 68                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 11       | 5                                                                                 | 1     | 4                                                                                 | 4                                                                                 |
| Mvmt Flow                | 106                                                                               | 136      | 193                                                                               | 310   | 197                                                                               | 435                                                                               |
| Major/Minor              | Minor1                                                                            | Major1   | Major2                                                                            |       |                                                                                   |                                                                                   |
| Conflicting Flow All     | 1183                                                                              | 353      | 0                                                                                 | 0     | 508                                                                               | 0                                                                                 |
| Stage 1                  | 353                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                  | 830                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 5.9                                                                               | 5.8      | -                                                                                 | -     | 4.14                                                                              | -                                                                                 |
| Critical Hdwy Stg 1      | 5.42                                                                              | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.42                                                                              | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.518                                                                             | 3.399    | -                                                                                 | -     | 2.236                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver       | 248                                                                               | 705      | -                                                                                 | -     | 1047                                                                              | -                                                                                 |
| Stage 1                  | 711                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                  | 428                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -     |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 200                                                                               | 702      | -                                                                                 | -     | 1042                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver       | 200                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 1                  | 707                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Stage 2                  | 347                                                                               | -        | -                                                                                 | -     | -                                                                                 | -                                                                                 |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB    |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 39.5                                                                              | 0        |                                                                                   | 2.9   |                                                                                   |                                                                                   |
| HCM LOS                  | E                                                                                 |          |                                                                                   |       |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT   |                                                                                   |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 334                                                                               | 1042  | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.724                                                                             | 0.189 | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 39.5                                                                              | 9.3   | -                                                                                 |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | E                                                                                 | A     | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 5.4                                                                               | 0.7   | -                                                                                 |                                                                                   |

HCM 6th TWSC  
6: Sunset Road & Site Egress Driveway

2024 Build Condition  
Weekday Arrival Peak Hour

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.3    |        |       |        |      |      |
| Movement                 | EBL    | EBT    | WBT   | WBR    | SBL  | SBR  |
| Lane Configurations      |        | ↑      | ↑     |        | ↓    | ↓    |
| Traffic Vol, veh/h       | 0      | 315    | 232   | 0      | 9    | 3    |
| Future Vol, veh/h        | 0      | 315    | 232   | 0      | 9    | 3    |
| Conflicting Peds, #/hr   | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control             | Free   | Free   | Free  | Free   | Stop | Stop |
| RT Channelized           | -      | None   | -     | None   | -    | None |
| Storage Length           | -      | -      | -     | -      | 0    | -    |
| Veh in Median Storage, # | -      | 0      | 0     | -      | 0    | -    |
| Grade, %                 | -      | 0      | 0     | -      | 0    | -    |
| Peak Hour Factor         | 68     | 68     | 68    | 68     | 68   | 68   |
| Heavy Vehicles, %        | 0      | 3      | 4     | 0      | 0    | 0    |
| Mvmt Flow                | 0      | 463    | 341   | 0      | 13   | 4    |
|                          |        |        |       |        |      |      |
| Major/Minor              | Major1 | Major2 |       | Minor2 |      |      |
| Conflicting Flow All     | -      | 0      | -     | 0      | 804  | 341  |
| Stage 1                  | -      | -      | -     | -      | 341  | -    |
| Stage 2                  | -      | -      | -     | -      | 463  | -    |
| Critical Hdwy            | -      | -      | -     | -      | 6.4  | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -     | -      | 5.4  | -    |
| Critical Hdwy Stg 2      | -      | -      | -     | -      | 5.4  | -    |
| Follow-up Hdwy           | -      | -      | -     | -      | 3.5  | 3.3  |
| Pot Cap-1 Maneuver       | 0      | -      | -     | 0      | 355  | 706  |
| Stage 1                  | 0      | -      | -     | 0      | 725  | -    |
| Stage 2                  | 0      | -      | -     | 0      | 638  | -    |
| Platoon blocked, %       |        | -      | -     |        |      |      |
| Mov Cap-1 Maneuver       | -      | -      | -     | -      | 355  | 706  |
| Mov Cap-2 Maneuver       | -      | -      | -     | -      | 355  | -    |
| Stage 1                  | -      | -      | -     | -      | 725  | -    |
| Stage 2                  | -      | -      | -     | -      | 638  | -    |
|                          |        |        |       |        |      |      |
|                          |        |        |       |        |      |      |
| Approach                 | EB     | WB     |       | SB     |      |      |
| HCM Control Delay, s     | 0      | 0      |       | 14.3   |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
|                          |        |        |       |        |      |      |
|                          |        |        |       |        |      |      |
| Minor Lane/Major Mvmt    | EBT    | WBT    | SBLn1 |        |      |      |
| Capacity (veh/h)         | -      | -      | 405   |        |      |      |
| HCM Lane V/C Ratio       | -      | -      | 0.044 |        |      |      |
| HCM Control Delay (s)    | -      | -      | 14.3  |        |      |      |
| HCM Lane LOS             | -      | -      | B     |        |      |      |
| HCM 95th %tile Q(veh)    | -      | -      | 0.1   |        |      |      |

# HCM 6th Signalized Intersection Summary

## 1: Boulevard & Sunset Road

2024 Build Condition  
Weekday Dismissal Peak Hour

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)       | 89                                                                                | 102                                                                               | 32                                                                                | 13                                                                                | 95                                                                                | 21                                                                                | 44                                                                                 | 389                                                                                 | 29                                                                                  | 11                                                                                  | 246                                                                                 | 48                                                                                  |
| Future Volume (veh/h)        | 89                                                                                | 102                                                                               | 32                                                                                | 13                                                                                | 95                                                                                | 21                                                                                | 44                                                                                 | 389                                                                                 | 29                                                                                  | 11                                                                                  | 246                                                                                 | 48                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Ped-Bike Adj(A_pbT)          | 0.98                                                                              |                                                                                   | 0.97                                                                              | 0.98                                                                              |                                                                                   | 0.97                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                    | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 2100                                                                              | 2067                                                                              | 1772                                                                              | 2100                                                                              | 2084                                                                              | 2100                                                                              | 2051                                                                               | 2100                                                                                | 2034                                                                                | 2100                                                                                | 2002                                                                                | 2100                                                                                |
| Adj Flow Rate, veh/h         | 100                                                                               | 115                                                                               | 24                                                                                | 15                                                                                | 107                                                                               | 23                                                                                | 49                                                                                 | 437                                                                                 | 29                                                                                  | 12                                                                                  | 276                                                                                 | -10                                                                                 |
| Peak Hour Factor             | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                               | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                | 0.89                                                                                |
| Percent Heavy Veh, %         | 0                                                                                 | 2                                                                                 | 20                                                                                | 0                                                                                 | 1                                                                                 | 0                                                                                 | 3                                                                                  | 0                                                                                   | 4                                                                                   | 0                                                                                   | 6                                                                                   | 0                                                                                   |
| Cap, veh/h                   | 175                                                                               | 156                                                                               | 30                                                                                | 67                                                                                | 264                                                                               | 53                                                                                | 135                                                                                | 1201                                                                                | 77                                                                                  | 72                                                                                  | 1054                                                                                | 0                                                                                   |
| Arrive On Green              | 0.17                                                                              | 0.17                                                                              | 0.17                                                                              | 0.17                                                                              | 0.17                                                                              | 0.17                                                                              | 0.68                                                                               | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.00                                                                                |
| Sat Flow, veh/h              | 671                                                                               | 938                                                                               | 180                                                                               | 103                                                                               | 1582                                                                              | 318                                                                               | 126                                                                                | 1755                                                                                | 112                                                                                 | 36                                                                                  | 2013                                                                                | -71                                                                                 |
| Grp Volume(v), veh/h         | 239                                                                               | 0                                                                                 | 0                                                                                 | 145                                                                               | 0                                                                                 | 0                                                                                 | 515                                                                                | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Grp Sat Flow(s),veh/h/ln     | 1789                                                                              | 0                                                                                 | 0                                                                                 | 2002                                                                              | 0                                                                                 | 0                                                                                 | 1993                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Q Serve(g_s), s              | 4.9                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Cycle Q Clear(g_c), s        | 10.1                                                                              | 0.0                                                                               | 0.0                                                                               | 5.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.4                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Prop In Lane                 | 0.42                                                                              |                                                                                   | 0.10                                                                              | 0.10                                                                              |                                                                                   | 0.16                                                                              | 0.10                                                                               |                                                                                     | 0.06                                                                                | 0.04                                                                                |                                                                                     | -0.04                                                                               |
| Lane Grp Cap(c), veh/h       | 362                                                                               | 0                                                                                 | 0                                                                                 | 383                                                                               | 0                                                                                 | 0                                                                                 | 1412                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| V/C Ratio(X)                 | 0.66                                                                              | 0.00                                                                              | 0.00                                                                              | 0.38                                                                              | 0.00                                                                              | 0.00                                                                              | 0.36                                                                               | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Avail Cap(c_a), veh/h        | 768                                                                               | 0                                                                                 | 0                                                                                 | 850                                                                               | 0                                                                                 | 0                                                                                 | 1412                                                                               | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                              | 0.00                                                                              | 0.00                                                                              | 1.00                                                                               | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                | 0.00                                                                                |
| Uniform Delay (d), s/veh     | 31.9                                                                              | 0.0                                                                               | 0.0                                                                               | 30.1                                                                              | 0.0                                                                               | 0.0                                                                               | 5.3                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Incr Delay (d2), s/veh       | 2.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.6                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Initial Q Delay(d3),s/veh    | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(95%),veh/ln     | 7.9                                                                               | 0.0                                                                               | 0.0                                                                               | 4.5                                                                               | 0.0                                                                               | 0.0                                                                               | 4.7                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d),s/veh         | 34.0                                                                              | 0.0                                                                               | 0.0                                                                               | 30.7                                                                              | 0.0                                                                               | 0.0                                                                               | 5.5                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| LnGrp LOS                    | C                                                                                 | A                                                                                 | A                                                                                 | C                                                                                 | A                                                                                 | A                                                                                 | A                                                                                  | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   | A                                                                                   |
| Approach Vol, veh/h          |                                                                                   | 239                                                                               |                                                                                   |                                                                                   | 145                                                                               |                                                                                   |                                                                                    | 515                                                                                 |                                                                                     |                                                                                     |                                                                                     | 0                                                                                   |
| Approach Delay, s/veh        |                                                                                   | 34.0                                                                              |                                                                                   |                                                                                   | 30.7                                                                              |                                                                                   |                                                                                    | 5.5                                                                                 |                                                                                     |                                                                                     |                                                                                     | 0.0                                                                                 |
| Approach LOS                 |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Timer - Assigned Phs         |                                                                                   | 2                                                                                 |                                                                                   | 4                                                                                 |                                                                                   | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     |                                                                                   | 61.0                                                                              |                                                                                   | 19.4                                                                              |                                                                                   | 61.0                                                                              |                                                                                    | 19.4                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                   | 6.0                                                                               |                                                                                    | 6.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  |                                                                                   | 55.0                                                                              |                                                                                   | 33.0                                                                              |                                                                                   | 55.0                                                                              |                                                                                    | 33.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s |                                                                                   | 10.4                                                                              |                                                                                   | 12.1                                                                              |                                                                                   | 0.0                                                                               |                                                                                    | 7.2                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      |                                                                                   | 3.5                                                                               |                                                                                   | 1.3                                                                               |                                                                                   | 0.0                                                                               |                                                                                    | 0.8                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th Ctrl Delay           |                                                                                   |                                                                                   |                                                                                   | 17.1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 6th LOS                  |                                                                                   |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

HCM 6th TWSC  
2: Sunset Road & Roome Avenue

2024 Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 0.8    |                                                                                   |                                                                                   |        |                                                                                   |      |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR  |
| Lane Configurations      |        |  |  |        |  |      |
| Traffic Vol, veh/h       | 16     | 298                                                                               | 232                                                                               | 8      | 10                                                                                | 19   |
| Future Vol, veh/h        | 16     | 298                                                                               | 232                                                                               | 8      | 10                                                                                | 19   |
| Conflicting Peds, #/hr   | 4      | 0                                                                                 | 0                                                                                 | 4      | 0                                                                                 | 2    |
| 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         | 89     | 89                                                                                | 89                                                                                | 89     | 89                                                                                | 89   |
| Heavy Vehicles, %        | 0      | 2                                                                                 | 3                                                                                 | 0      | 10                                                                                | 0    |
| Mvmt Flow                | 18     | 335                                                                               | 261                                                                               | 9      | 11                                                                                | 21   |
|                          |        |                                                                                   |                                                                                   |        |                                                                                   |      |
| Major/Minor              | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |      |
| Conflicting Flow All     | 274    | 0                                                                                 | -                                                                                 | 0      | 641                                                                               | 272  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 270                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 371                                                                               | -    |
| Critical Hdwy            | 4.1    | -                                                                                 | -                                                                                 | -      | 6.6                                                                               | 5.7  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.5                                                                               | -    |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.5                                                                               | -    |
| Follow-up Hdwy           | 2.2    | -                                                                                 | -                                                                                 | -      | 3.59                                                                              | 3.3  |
| Pot Cap-1 Maneuver       | 1301   | -                                                                                 | -                                                                                 | -      | 419                                                                               | 801  |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 757                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 681                                                                               | -    |
| Platoon blocked, %       |        | -                                                                                 | -                                                                                 | -      |                                                                                   |      |
| Mov Cap-1 Maneuver       | 1296   | -                                                                                 | -                                                                                 | -      | 409                                                                               | 796  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 409                                                                               | -    |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 741                                                                               | -    |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 678                                                                               | -    |
|                          |        |                                                                                   |                                                                                   |        |                                                                                   |      |
|                          |        |                                                                                   |                                                                                   |        |                                                                                   |      |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |      |
| HCM Control Delay, s     | 0.4    | 0                                                                                 |                                                                                   | 11.3   |                                                                                   |      |
| HCM LOS                  |        |                                                                                   |                                                                                   | B      |                                                                                   |      |
|                          |        |                                                                                   |                                                                                   |        |                                                                                   |      |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |      |
| Capacity (veh/h)         | 1296   | -                                                                                 | -                                                                                 | -      | 600                                                                               |      |
| HCM Lane V/C Ratio       | 0.014  | -                                                                                 | -                                                                                 | -      | 0.054                                                                             |      |
| HCM Control Delay (s)    | 7.8    | 0                                                                                 | -                                                                                 | -      | 11.3                                                                              |      |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -      | B                                                                                 |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 0.2                                                                               |      |

HCM 6th TWSC  
3: Washburn Road /Site Ingress Driveway & Sunset Road

2024 Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |        |              |        |      |              |        |      |              |      |      |      |      |
|--------------------------|--------|--------------|--------|------|--------------|--------|------|--------------|------|------|------|------|
| Int Delay, s/veh         | 0.6    |              |        |      |              |        |      |              |      |      |      |      |
| Movement                 | EBL    | EBT          | EBR    | WBL  | WBT          | WBR    | NBL  | NBT          | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |        | <div>↕</div> |        |      | <div>↕</div> |        |      | <div>↕</div> |      |      |      |      |
| Traffic Vol, veh/h       | 3      | 304          | 81     | 14   | 230          | 8      | 7    | 1            | 11   | 0    | 0    | 0    |
| Future Vol, veh/h        | 3      | 304          | 81     | 14   | 230          | 8      | 7    | 1            | 11   | 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         | 92     | 89           | 89     | 89   | 89           | 92     | 89   | 92           | 89   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2            | 1      | 0    | 3            | 2      | 0    | 2            | 0    | 2    | 2    | 2    |
| Mvmt Flow                | 3      | 342          | 91     | 16   | 258          | 9      | 8    | 1            | 12   | 0    | 0    | 0    |
|                          |        |              |        |      |              |        |      |              |      |      |      |      |
| Major/Minor              | Major1 |              | Major2 |      |              | Minor1 |      |              |      |      |      |      |
| Conflicting Flow All     | 267    | 0            | 0      | 433  | 0            | 0      | 689  | 693          | 388  |      |      |      |
| Stage 1                  | -      | -            | -      | -    | -            | -      | 394  | 394          | -    |      |      |      |
| Stage 2                  | -      | -            | -      | -    | -            | -      | 295  | 299          | -    |      |      |      |
| Critical Hdwy            | 4.12   | -            | -      | 4.1  | -            | -      | 6.4  | 6.52         | 6.2  |      |      |      |
| Critical Hdwy Stg 1      | -      | -            | -      | -    | -            | -      | 5.4  | 5.52         | -    |      |      |      |
| Critical Hdwy Stg 2      | -      | -            | -      | -    | -            | -      | 5.4  | 5.52         | -    |      |      |      |
| Follow-up Hdwy           | 2.218  | -            | -      | 2.2  | -            | -      | 3.5  | 4.018        | 3.3  |      |      |      |
| Pot Cap-1 Maneuver       | 1297   | -            | -      | 1137 | -            | -      | 415  | 367          | 665  |      |      |      |
| Stage 1                  | -      | -            | -      | -    | -            | -      | 686  | 605          | -    |      |      |      |
| Stage 2                  | -      | -            | -      | -    | -            | -      | 760  | 666          | -    |      |      |      |
| Platoon blocked, %       |        | -            | -      |      | -            | -      |      |              |      |      |      |      |
| Mov Cap-1 Maneuver       | 1297   | -            | -      | 1137 | -            | -      | 407  | 0            | 665  |      |      |      |
| Mov Cap-2 Maneuver       | -      | -            | -      | -    | -            | -      | 407  | 0            | -    |      |      |      |
| Stage 1                  | -      | -            | -      | -    | -            | -      | 684  | 0            | -    |      |      |      |
| Stage 2                  | -      | -            | -      | -    | -            | -      | 747  | 0            | -    |      |      |      |
|                          |        |              |        |      |              |        |      |              |      |      |      |      |
| Approach                 | EB     |              | WB     |      |              | NB     |      |              |      |      |      |      |
| HCM Control Delay, s     | 0.1    |              | 0.5    |      |              | 12     |      |              |      |      |      |      |
| HCM LOS                  |        |              |        |      |              | B      |      |              |      |      |      |      |
|                          |        |              |        |      |              |        |      |              |      |      |      |      |
| Minor Lane/Major Mvmt    | NBLn1  | EBL          | EBT    | EBR  | WBL          | WBT    | WBR  |              |      |      |      |      |
| Capacity (veh/h)         | 533    | 1297         | -      | -    | 1137         | -      | -    |              |      |      |      |      |
| HCM Lane V/C Ratio       | 0.04   | 0.003        | -      | -    | 0.014        | -      | -    |              |      |      |      |      |
| HCM Control Delay (s)    | 12     | 7.8          | 0      | -    | 8.2          | 0      | -    |              |      |      |      |      |
| HCM Lane LOS             | B      | A            | A      | -    | A            | A      | -    |              |      |      |      |      |
| HCM 95th %tile Q(veh)    | 0.1    | 0            | -      | -    | 0            | -      | -    |              |      |      |      |      |

HCM 6th TWSC  
4: West Parkway & Sunset Road

2024 Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |                                                                                   |          |                                                                                   |        |                                                                                   |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 5.7                                                                               |          |                                                                                   |        |                                                                                   |                                                                                   |
| Movement                 | WBL                                                                               | WBR      | NBT                                                                               | NBR    | SBL                                                                               | SBT                                                                               |
| Lane Configurations      |  |          |  |        |  |  |
| Traffic Vol, veh/h       | 123                                                                               | 78       | 206                                                                               | 158    | 98                                                                                | 270                                                                               |
| Future Vol, veh/h        | 123                                                                               | 78       | 206                                                                               | 158    | 98                                                                                | 270                                                                               |
| Conflicting Peds, #/hr   | 1                                                                                 | 0        | 0                                                                                 | 5      | 5                                                                                 | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop     | Free                                                                              | Free   | Free                                                                              | Free                                                                              |
| RT Channelized           | -                                                                                 | None     | -                                                                                 | None   | -                                                                                 | None                                                                              |
| Storage Length           | 0                                                                                 | -        | -                                                                                 | -      | 100                                                                               | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -        | 0                                                                                 | -      | -                                                                                 | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -        | 0                                                                                 | -      | -                                                                                 | 0                                                                                 |
| Peak Hour Factor         | 89                                                                                | 89       | 89                                                                                | 89     | 89                                                                                | 89                                                                                |
| Heavy Vehicles, %        | 0                                                                                 | 2        | 3                                                                                 | 2      | 2                                                                                 | 0                                                                                 |
| Mvmt Flow                | 138                                                                               | 88       | 231                                                                               | 178    | 110                                                                               | 303                                                                               |
|                          |                                                                                   |          |                                                                                   |        |                                                                                   |                                                                                   |
| Major/Minor              | Minor1                                                                            | Major1   |                                                                                   | Major2 |                                                                                   |                                                                                   |
| Conflicting Flow All     | 849                                                                               | 325      | 0                                                                                 | 0      | 414                                                                               | 0                                                                                 |
| Stage 1                  | 325                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 2                  | 524                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Critical Hdwy            | 5.9                                                                               | 5.8      | -                                                                                 | -      | 4.12                                                                              | -                                                                                 |
| Critical Hdwy Stg 1      | 5.4                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2      | 5.4                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Follow-up Hdwy           | 3.5                                                                               | 3.318    | -                                                                                 | -      | 2.218                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver       | 376                                                                               | 744      | -                                                                                 | -      | 1145                                                                              | -                                                                                 |
| Stage 1                  | 737                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 2                  | 598                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Platoon blocked, %       |                                                                                   |          | -                                                                                 | -      |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver       | 338                                                                               | 740      | -                                                                                 | -      | 1140                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver       | 338                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 1                  | 733                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Stage 2                  | 540                                                                               | -        | -                                                                                 | -      | -                                                                                 | -                                                                                 |
|                          |                                                                                   |          |                                                                                   |        |                                                                                   |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |                                                                                   |                                                                                   |
| Approach                 | WB                                                                                | NB       |                                                                                   | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 22.4                                                                              | 0        |                                                                                   | 2.3    |                                                                                   |                                                                                   |
| HCM LOS                  | C                                                                                 |          |                                                                                   |        |                                                                                   |                                                                                   |
|                          |                                                                                   |          |                                                                                   |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | NBT                                                                               | NBRWBLn1 |                                                                                   | SBL    | SBT                                                                               |                                                                                   |
| Capacity (veh/h)         | -                                                                                 | -        | 428                                                                               | 1140   | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio       | -                                                                                 | -        | 0.528                                                                             | 0.097  | -                                                                                 |                                                                                   |
| HCM Control Delay (s)    | -                                                                                 | -        | 22.4                                                                              | 8.5    | -                                                                                 |                                                                                   |
| HCM Lane LOS             | -                                                                                 | -        | C                                                                                 | A      | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | -                                                                                 | -        | 3                                                                                 | 0.3    | -                                                                                 |                                                                                   |

HCM 6th TWSC  
6: Sunset Road & Site Egress Driveway

2024 Build Condition  
Weekday Dismissal Peak Hour

| Intersection             |        |        |       |        |      |      |
|--------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh         | 0.7    |        |       |        |      |      |
| Movement                 | EBL    | EBT    | WBT   | WBR    | SBL  | SBR  |
| Lane Configurations      |        | ↑      | ↑     |        | ↓    | ↓    |
| Traffic Vol, veh/h       | 0      | 363    | 237   | 0      | 24   | 11   |
| Future Vol, veh/h        | 0      | 363    | 237   | 0      | 24   | 11   |
| 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         | 89     | 89     | 89    | 89     | 89   | 89   |
| Heavy Vehicles, %        | 0      | 2      | 3     | 0      | 0    | 0    |
| Mvmt Flow                | 0      | 408    | 266   | 0      | 27   | 12   |
|                          |        |        |       |        |      |      |
| Major/Minor              | Major1 | Major2 |       | Minor2 |      |      |
| Conflicting Flow All     | -      | 0      | -     | 0      | 674  | 266  |
| Stage 1                  | -      | -      | -     | -      | 266  | -    |
| Stage 2                  | -      | -      | -     | -      | 408  | -    |
| Critical Hdwy            | -      | -      | -     | -      | 6.4  | 6.2  |
| Critical Hdwy Stg 1      | -      | -      | -     | -      | 5.4  | -    |
| Critical Hdwy Stg 2      | -      | -      | -     | -      | 5.4  | -    |
| Follow-up Hdwy           | -      | -      | -     | -      | 3.5  | 3.3  |
| Pot Cap-1 Maneuver       | 0      | -      | -     | 0      | 423  | 778  |
| Stage 1                  | 0      | -      | -     | 0      | 783  | -    |
| Stage 2                  | 0      | -      | -     | 0      | 676  | -    |
| Platoon blocked, %       |        | -      | -     |        |      |      |
| Mov Cap-1 Maneuver       | -      | -      | -     | -      | 423  | 778  |
| Mov Cap-2 Maneuver       | -      | -      | -     | -      | 423  | -    |
| Stage 1                  | -      | -      | -     | -      | 783  | -    |
| Stage 2                  | -      | -      | -     | -      | 676  | -    |
|                          |        |        |       |        |      |      |
|                          |        |        |       |        |      |      |
| Approach                 | EB     | WB     |       | SB     |      |      |
| HCM Control Delay, s     | 0      | 0      |       | 12.9   |      |      |
| HCM LOS                  | B      |        |       |        |      |      |
|                          |        |        |       |        |      |      |
|                          |        |        |       |        |      |      |
| Minor Lane/Major Mvmt    | EBT    | WBT    | SBLn1 |        |      |      |
| Capacity (veh/h)         | -      | -      | 494   |        |      |      |
| HCM Lane V/C Ratio       | -      | -      | 0.08  |        |      |      |
| HCM Control Delay (s)    | -      | -      | 12.9  |        |      |      |
| HCM Lane LOS             | -      | -      | B     |        |      |      |
| HCM 95th %tile Q(veh)    | -      | -      | 0.3   |        |      |      |



## **TRAFFIC SIGNAL TIMING DIRECTIVE**

# TRAFFIC SIGNAL TIMING

## BOULEVARD (CR ALT 511) & SUNSET ROAD

### TOWNSHIP OF PEQUANNOCK

| PHASE                       | SIGNAL INDICATIONS |                |                |                | TIME |      |
|-----------------------------|--------------------|----------------|----------------|----------------|------|------|
|                             | <u>2,3,6,7</u>     | <u>1,4,5,8</u> | <u>B,D,F,G</u> | <u>A,C,E,H</u> | I    | II   |
| <u>VEHICLE ACTUATED</u>     |                    |                |                |                |      |      |
| A – Boulevard (ROW)         | G                  | R              | W              | DW             | 40   | 8    |
| Ped Clearance               | G                  | R              | FDW            | DW             | 15   | 15   |
| Change                      | Y                  | R              | DW             | DW             | 4    | 4    |
| Clearance                   | R                  | R              | DW             | DW             | 2    | 2    |
| B – Sunset (ROW)            | R                  | G              | DW             | DW             | 7-33 | 7-65 |
| Change                      | R                  | Y              | DW             | DW             | 4    | 4    |
| Clearance                   | R                  | R              | DW             | DW             | 2    | 2    |
| <u>PEDESTRIAN ACTIVATED</u> |                    |                |                |                |      |      |
| A – Boulevard (ROW)         | G                  | R              | W              | DW             | 40   | 8    |
| Ped Clearance               | G                  | R              | FDW            | DW             | 15   | 15   |
| Change                      | Y                  | R              | DW             | DW             | 4    | 4    |
| Clearance                   | R                  | R              | DW             | DW             | 2    | 2    |
| B – Sunset (ROW)            | R                  | G              | DW             | W              | 16   | 16   |
| Ped Clearance               | R                  | G              | DW             | FDW            | 16   | 16   |
| Vehicle Extension           | R                  | G              | DW             | DW             | 0-2  | 0-34 |
| Change                      | R                  | Y              | DW             | DW             | 4    | 4    |
| Clearance                   | R                  | R              | DW             | DW             | 2    | 2    |
| FLASHING OPERATION          | Y                  | R              | DARK           | DARK           |      |      |

#### NOTES:

1. Phase **B** memory and recall “Off” .
2. Controller to rest in Phase **A** green.
3. Manual Control to be disconnected.
4. Vehicle Extension to be set at 2 seconds.

#### Hours of Operation / Cycle Length

Time I - ALL OTHER TIMES, C = Variable

Time II - 2:30 P.M. - 3:30 P.M., Monday – Friday / C = Variable

09/16/02

Rev. 01/14/03

**Rev. 03/25/2010**