

# MEMORANDUM



To: Mr. Tom Dubose  
Dubose Design Group Inc  
El Centro, CA

Date: September 8, 2025

From: John A. Boarman, PE & Roman Lopez, PTP  
LLG

LLG Ref: 3-25-4126

4542 Ruffner Street  
Suite 100  
San Diego, CA 92111  
**858.300.8800** T  
www.llgengineers.com

Subject: **Imperial County Data Center Project**

Pasadena  
Irvine  
San Diego

## INTRODUCTION / PURPOSE OF STUDY

Linscott, Law & Greenspan, Engineers (LLG) has prepared this memorandum for the Imperial County Data Center project ("Project"), located at the southeast corner of Aten Road and Clark Road within the County of Imperial.

**Figure 1** shows a project area map.

The purpose of this memo is to provide a trip generation assessment and evaluate the access points to the site.

## PROJECT DESCRIPTION

The site is located within the County of Imperial and is bounded by Aten Road to the north, the Central Drain to the south, and Clark Road to the west. The Project proposes the construction of a 950,000 square foot (SF) data center. The data center's primary focus is advanced artificial intelligence and machine learning training. The site will operate 24 hours a day, seven days a week and have up to 75 employees who will work in shifts to maintain the facility. The data center will not have on-site customer traffic.

Access to the site is proposed to be provided from one driveway along Aten Road opposite Puerto Vallarta Avenue. The Project driveway would form the fourth leg of this existing T-intersection. There will be a driveway on Clark Road which will be an emergency access only driveway.

For the purposes of this evaluation, the project driveway on Aten Road is assumed to provide one inbound lane and one outbound lane with stop control on the driveway.

**Figure 2** illustrates the Project site plan.

## EXISTING CONDITIONS

### *Existing Street Network*

A description of the fronting roadways is discussed below.

**Aten Road** is classified as a Major Collector in the *Imperial County Circulation Element Plan*. Aten Road is currently constructed as a four-lane divided roadway with intermittent left turn pockets within the study area. Along the project frontage, there are no sidewalks or bike lanes provided, and on-street parking is not permitted. The posted speed limit is 50 mph.

**Clark Road** is classified as a Major Collector in the *Imperial County Circulation Element Plan*. Clark Road is currently constructed as a 2-lane undivided roadway north of Aten Road with a center striped median. South of Aten Road, it is currently constructed as a 2-lane undivided roadway. Along the project frontage, there are no sidewalks or bike lanes

provided, and on-street parking is not permitted. The posted speed limit is 25 mph north of Aten Road and 45 mph south of Aten Road.

### *Existing Traffic Volumes*

Peak hour intersection turning movement volumes were conducted at Aten Road / Clark Road on Tuesday, August 12, 2025. Left- and right-turn traffic volume counts at Aten Road / Puerto Vallarta Avenue were conducted on Thursday, August 28, 2025. Through movements on Aten Road at Puerto Vallarta Avenue were determined using the traffic volumes from the adjacent Aten Road / Clark Road intersection.

Based on a review of traffic data collected at other times and locations throughout the surrounding area, a seasonal adjustment factor of 20% was applied to the counted traffic volumes to account for the lower traffic volumes typically observed during the summer months in Imperial County.

**Figure 3** shows the Existing Conditions and **Figure 4** shows the Existing Traffic Volumes. **Attachment A** contains the manual count sheets.

## **TRIP GENERATION / DISTRIBUTION / ASSIGNMENT**

### *Trip Generation*

As noted previously, the Project proposes to construct a 950,000 SF data center. Trip generation rates for the Project were taken from the ITE *Trip Generation Manual*, 12<sup>th</sup> Edition for “Data Center” (land use code 160), to determine the traffic generated by the proposed Project. As shown in **Table A**, the Project calculated to generate 941 ADT, with 105 AM peak hour trips (58 inbound / 47 outbound) and 86 PM peak hour trips (26 inbound / 60 outbound)

### *Trip Distribution/Assignment*

The Project traffic was distributed and assigned to the street system based on the review of the site location, proximity to the state highways, and existing and anticipated traffic patterns to and from the site.

**Figure 5** shows the Project Traffic Distribution. **Figure 6** shows the Project traffic volumes.



**TABLE A**  
**PROJECT TRIP GENERATION**

| Land Use                       | Size    | Daily Trip Ends (ADTs) <sup>a</sup> |        | AM Peak Hour |        |        |     |       | PM Peak Hour |        |        |     |       |
|--------------------------------|---------|-------------------------------------|--------|--------------|--------|--------|-----|-------|--------------|--------|--------|-----|-------|
|                                |         | Rate <sup>b</sup>                   | Volume | Rate         | In:Out | Volume |     |       | Rate         | In:Out | Volume |     |       |
|                                |         |                                     |        |              | Split  | In     | Out | Total |              | Split  | In     | Out | Total |
| Data Center (160) <sup>c</sup> | 950 KSF | 0.73/KSF                            | 694    | 0.07         | 71:29  | 48     | 19  | 67    | 0.05         | 19:81  | 9      | 39  | 48    |

**Footnotes:**

- a. Average Daily Trips.
- b. Trip generation rates are based on *the ITE Trip Generation Manual, 12<sup>th</sup> Edition*.
- c. (160) = ITE Land Use Code

## **ANALYSIS APPROACH AND METHODOLOGY**

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

**Signalized intersections** were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 19 of the Highway Capacity Manual 7th Edition (HCM 7), with the assistance of the Synchro (version 12) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS). Caltrans location-specific signal timing information such as minimum greens, cycle lengths, splits for the freeway interchanges were included in the analysis, where available.

**Unsignalized intersections** were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapter 20 and 21 of the HCM 7, with the assistance of the Synchro (version 12) computer software.

## **OPENING YEAR (YEAR 2028) TRAFFIC VOLUMES**

Cumulative traffic are development projects that may add traffic to the study area by the Project's opening year. Cumulative development was accounted for using an ambient growth factor applied to the existing traffic volumes. An ambient growth factor of 1% per year for a period of three (3) years was applied to existing traffic volumes based on an estimated opening year of 2028.

**Figure 7** shows the Opening Year Traffic Volumes. **Figure 8** shows the Opening Year + Project Traffic Volumes.

## **ANALYSIS RESULTS**

This section summarizes the peak hour intersection operations for the Opening Year without Project and Opening Year + Project scenarios for the study area intersections. **Attachment B** contains the intersection analysis worksheets for both scenarios.

### *Opening Year without Project*

As seen in **Table B**, the study area intersections are calculated to operate as follows:

- Intersection #1: Aten Rd / Clark Rd – LOS D during the AM peak hour and LOS C during the PM peak hour
- Intersection #2: Aten Rd / Project Driveway/Puerto Vallarta Ave – LOS E during the AM and PM peak hours

### Opening Year + Project

As seen in **Table B**, the study area intersections are calculated to operate as follows:

- Intersection #1: Aten Rd / Clark Rd – LOS D during the AM peak hour and LOS C during the PM peak hour
- Intersection #2: Aten Rd / Project Driveway/Puerto Vallarta Ave – LOS F during the AM and PM peak hours

**TABLE B**  
**INTERSECTION OPERATIONS**

| Intersection                                      | Control Type      | Peak Hour | Opening Year without Project |                  | Opening Year + Project |          |                |
|---------------------------------------------------|-------------------|-----------|------------------------------|------------------|------------------------|----------|----------------|
|                                                   |                   |           | Delay <sup>a</sup>           | LOS <sup>b</sup> | Delay                  | LOS      | Δ <sup>c</sup> |
| 1. Aten Rd / Clark Rd                             | Signal            | AM        | 40.6                         | D                | 42.2                   | D        | 1.6            |
|                                                   |                   | PM        | 32.5                         | C                | 33.3                   | C        | 0.8            |
| 2. Aten Rd / Project Driveway/Puerto Vallarta Ave | MSSC <sup>d</sup> | AM        | 35.2                         | E                | <b>65.7</b>            | <b>F</b> | <b>30.5</b>    |
|                                                   |                   | PM        | 39.1                         | E                | <b>99.4</b>            | <b>F</b> | <b>60.3</b>    |

#### Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes the project-induced increase in delay.
- d. MSSC – Minor Stop Street Controlled intersection. Worst turning movement delay is reported.

#### General Note:

- **BOLD** and **shading** indicate unacceptable Level of Service

| SIGNALIZED           |     | UNSIGNALIZED         |     |
|----------------------|-----|----------------------|-----|
| DELAY/LOS THRESHOLDS |     | DELAY/LOS THRESHOLDS |     |
| Delay                | LOS | Delay                | LOS |
| 0.0 ≤ 10.0           | A   | 0.0 ≤ 10.0           | A   |
| 10.1 to 20.0         | B   | 10.1 to 15.0         | B   |
| 20.1 to 35.0         | C   | 15.1 to 25.0         | C   |
| 35.1 to 55.0         | D   | 25.1 to 35.0         | D   |
| 55.1 to 80.0         | E   | 35.1 to 50.0         | E   |
| ≥ 80.1               | F   | ≥ 50.1               | F   |

## CONCLUSIONS

The proposed 950,000 SF data center is calculated to generate 941 ADT, with 105 AM peak hour trips and 86 PM peak hour trips as shown in *Table A* of this memo.

The driveway operations analysis summarized in *Table B* shows that the SR-86 / Project Driveway/ Puerto Vallarta Avenue intersection **will not** operate acceptably as a stop-controlled intersection with the addition of Project traffic. In order to improve the delay at this intersection, signalization is recommended. Dedicated westbound left turn and northbound left turn lanes are warranted at this location. Alternative access management schemes, such as restricting side street left turns, would also result in acceptable levels of service. However, this configuration would displace U-turn traffic to downstream signals at Clark Road (to the west) and Cross Road (to the east). U-turns are not currently permitted at the Aten Road / Cross Road intersection.

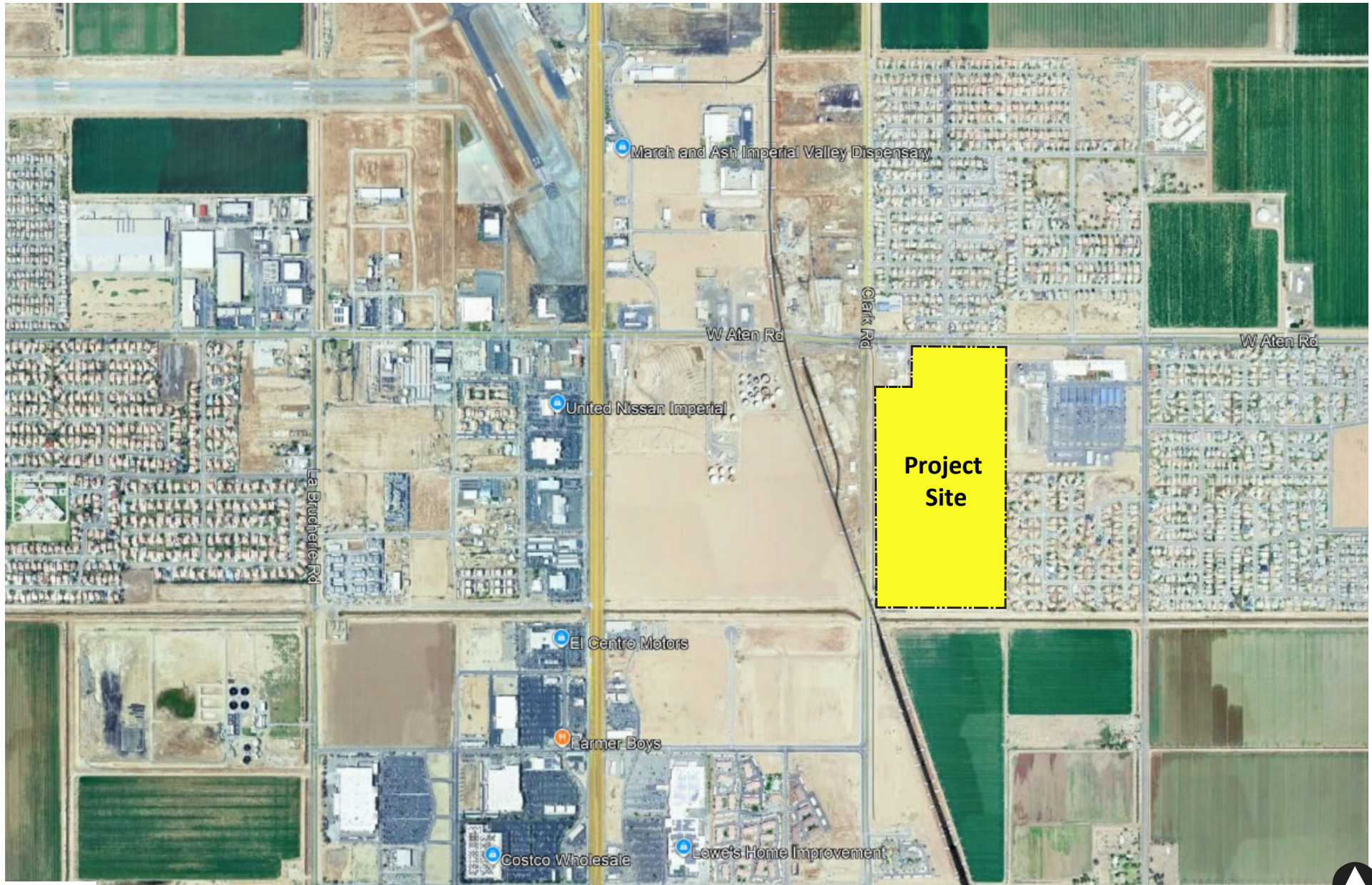
cc: File

**FIGURES**

1. Project Area Map
2. Project Site Plan
3. Existing Conditions Diagram
4. Existing Traffic Volumes
5. Project Traffic Distribution
6. Project Traffic Volumes
7. Opening Year (Year 2028) Traffic Volumes
8. Opening Year + Project Traffic Volumes

**ATTACHMENTS**

- A. Traffic Counts Sheets
- B. Intersection Analysis Worksheets

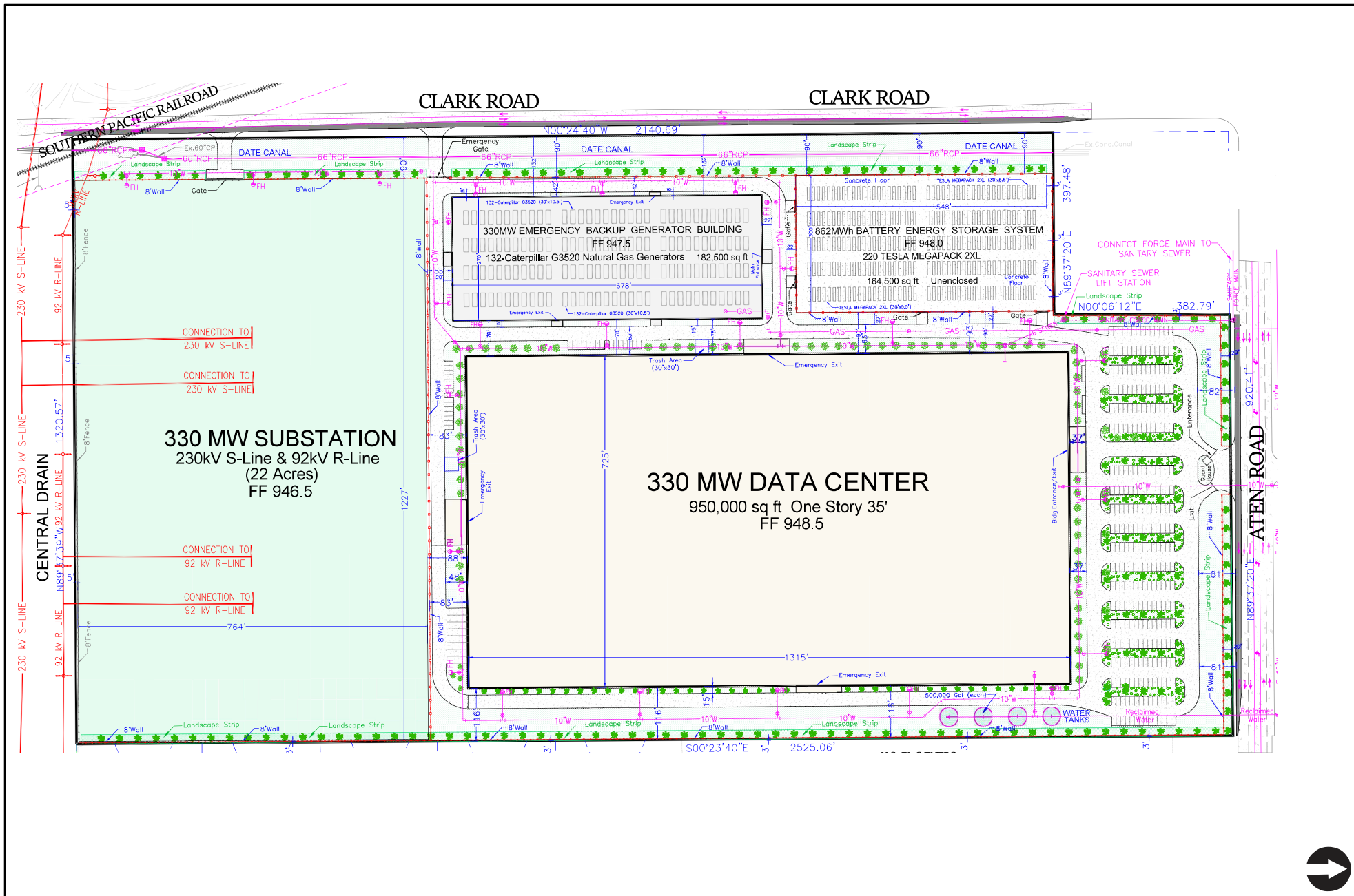


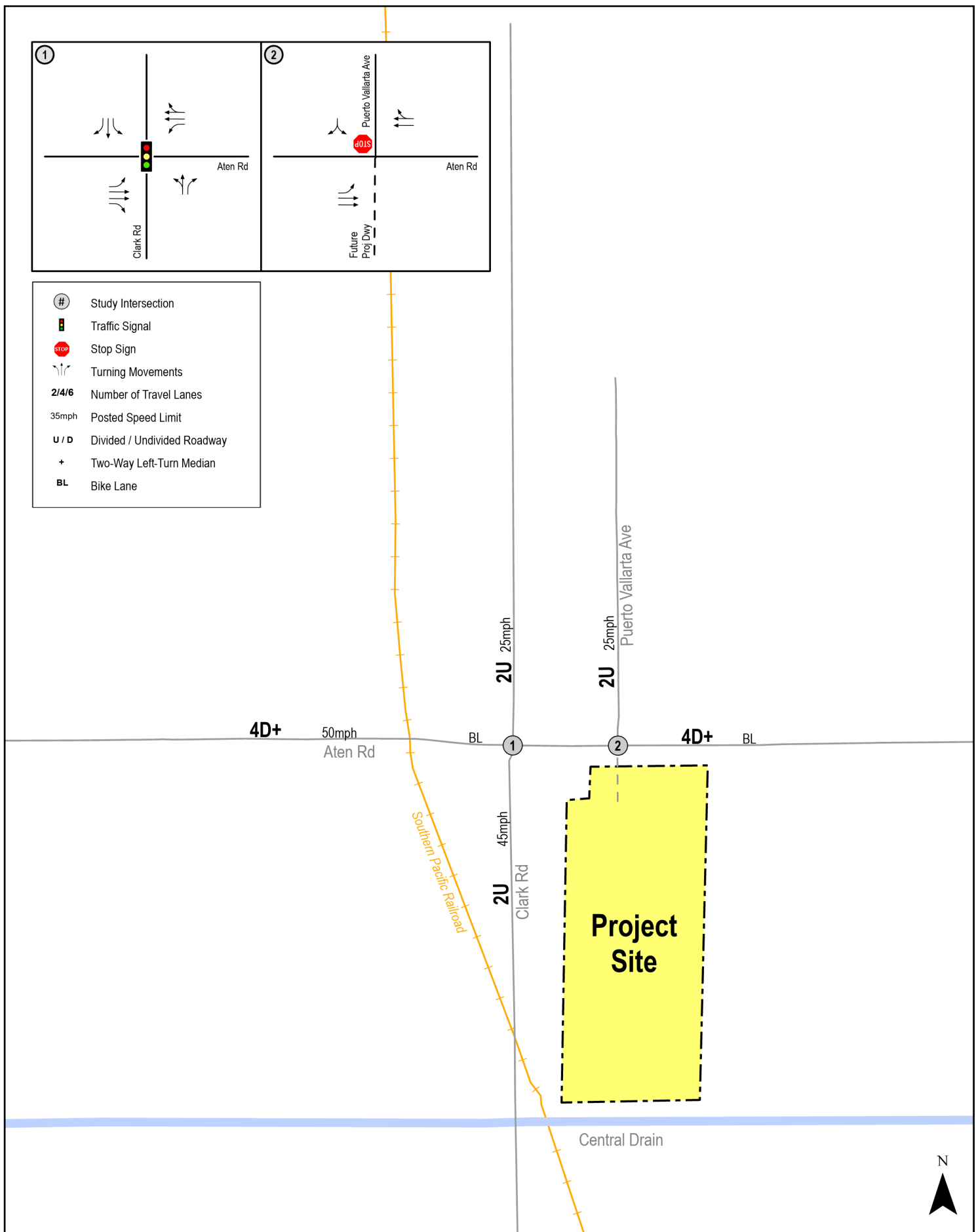
N:\4126\Figures  
Date: 08/26/25

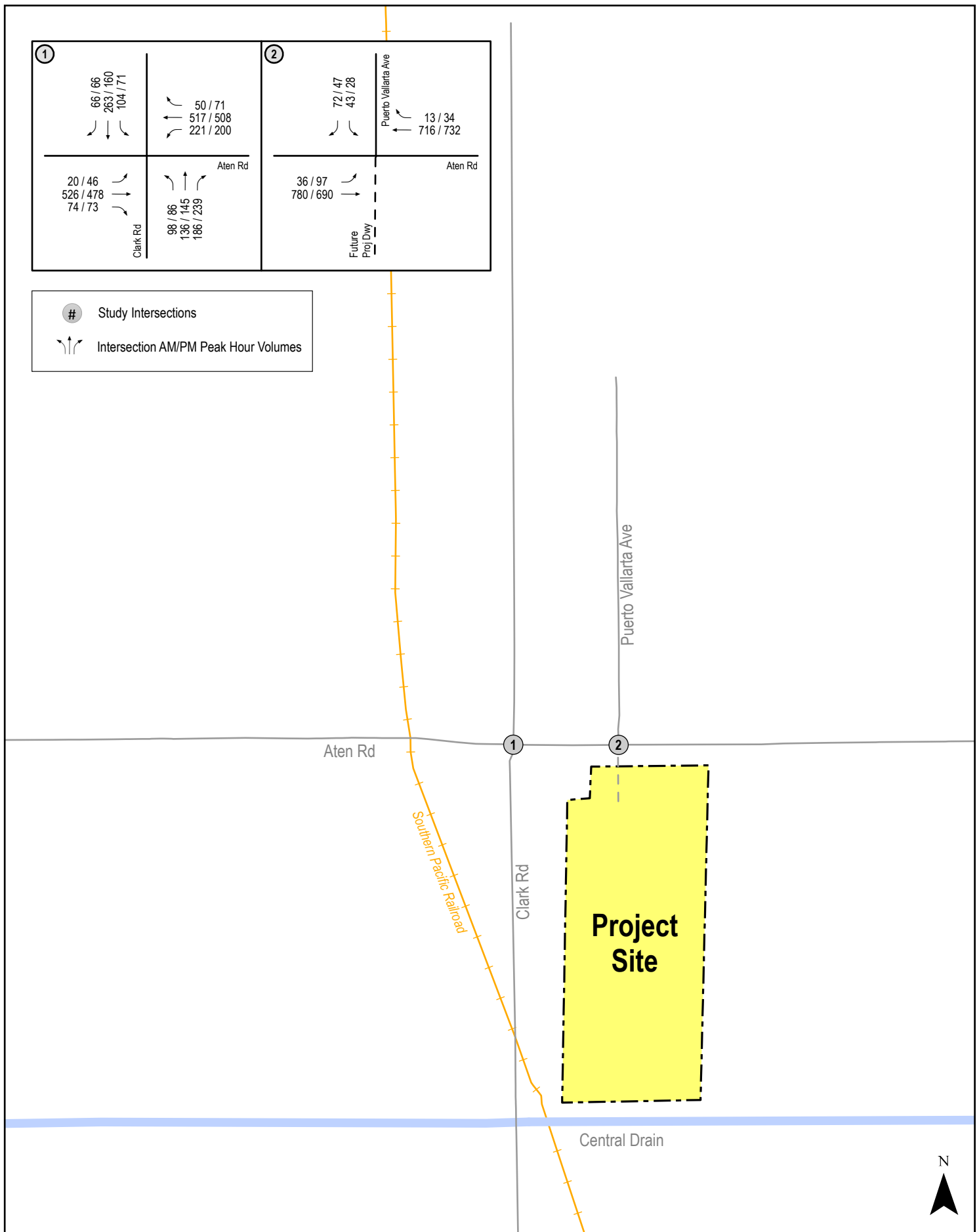
Figure 1

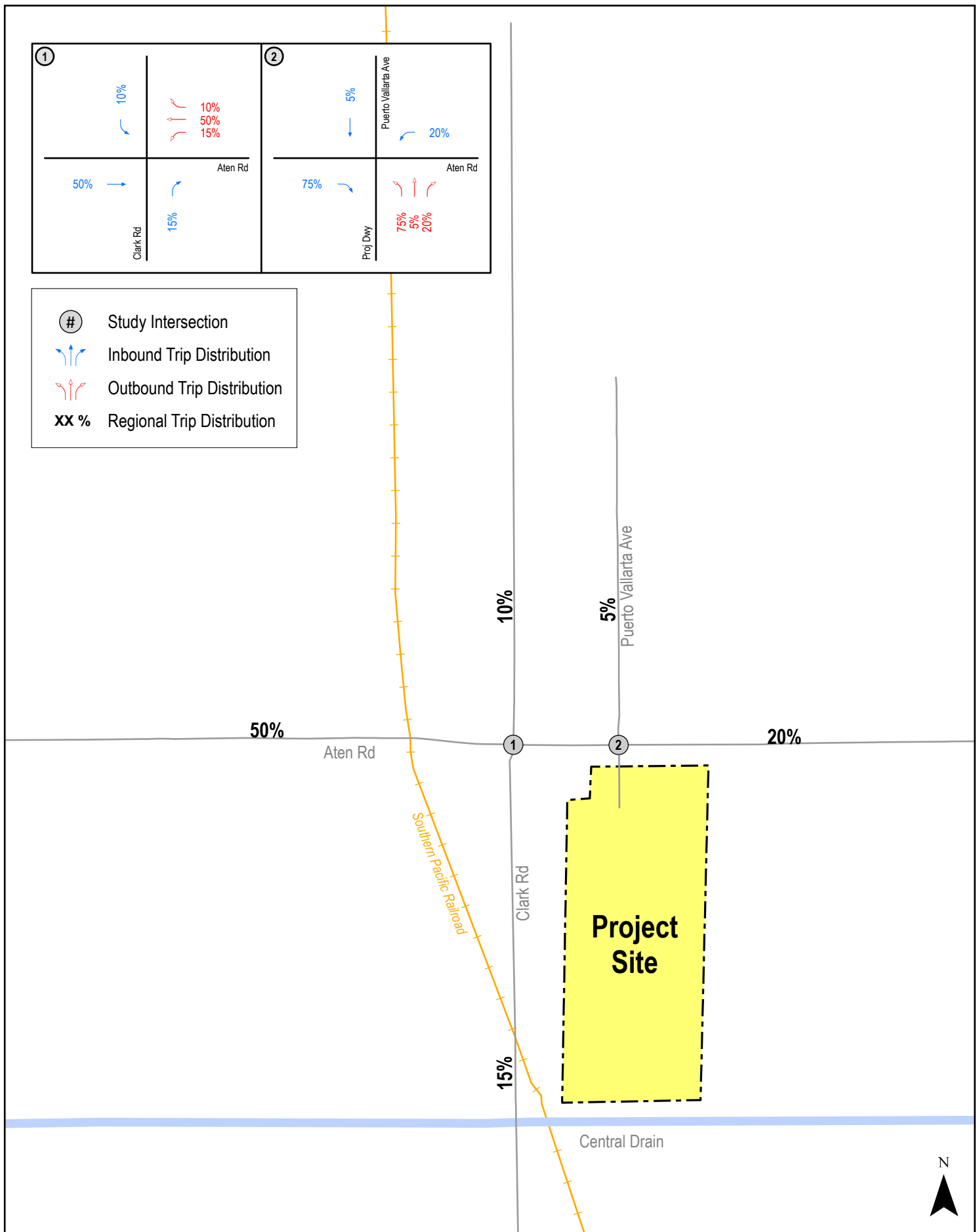
## Project Area Map

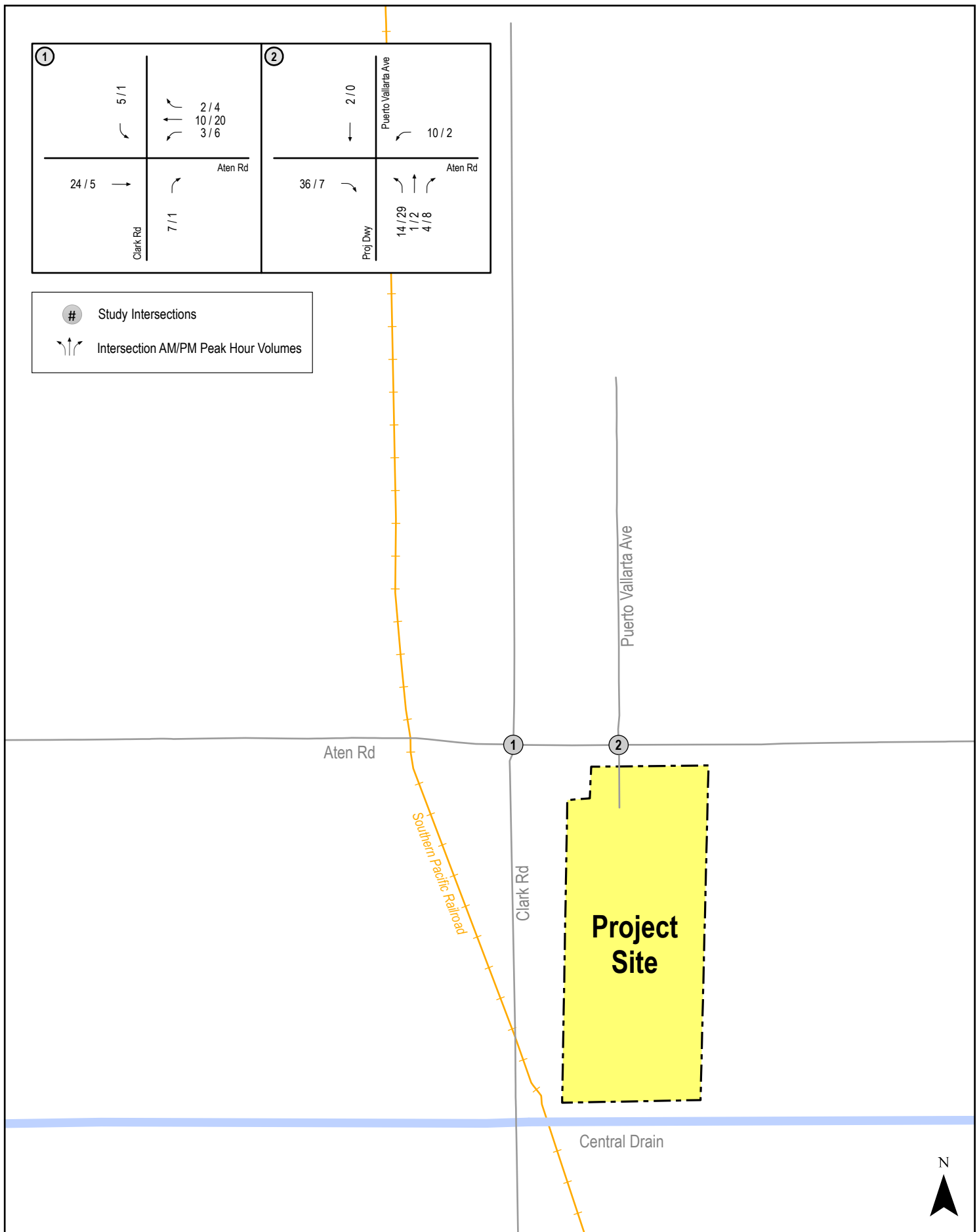
IMPERIAL COUNTY DATA CENTER SITE

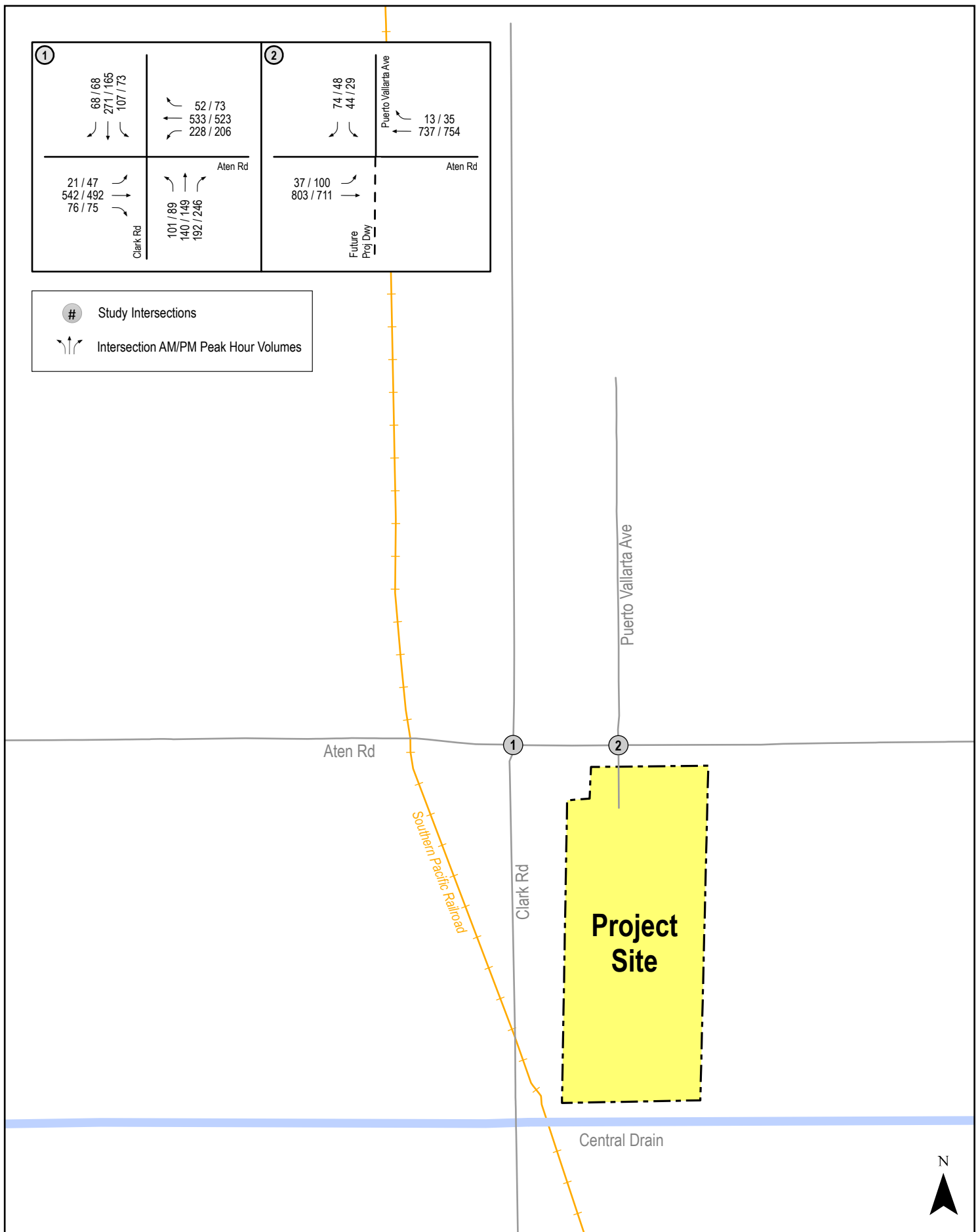


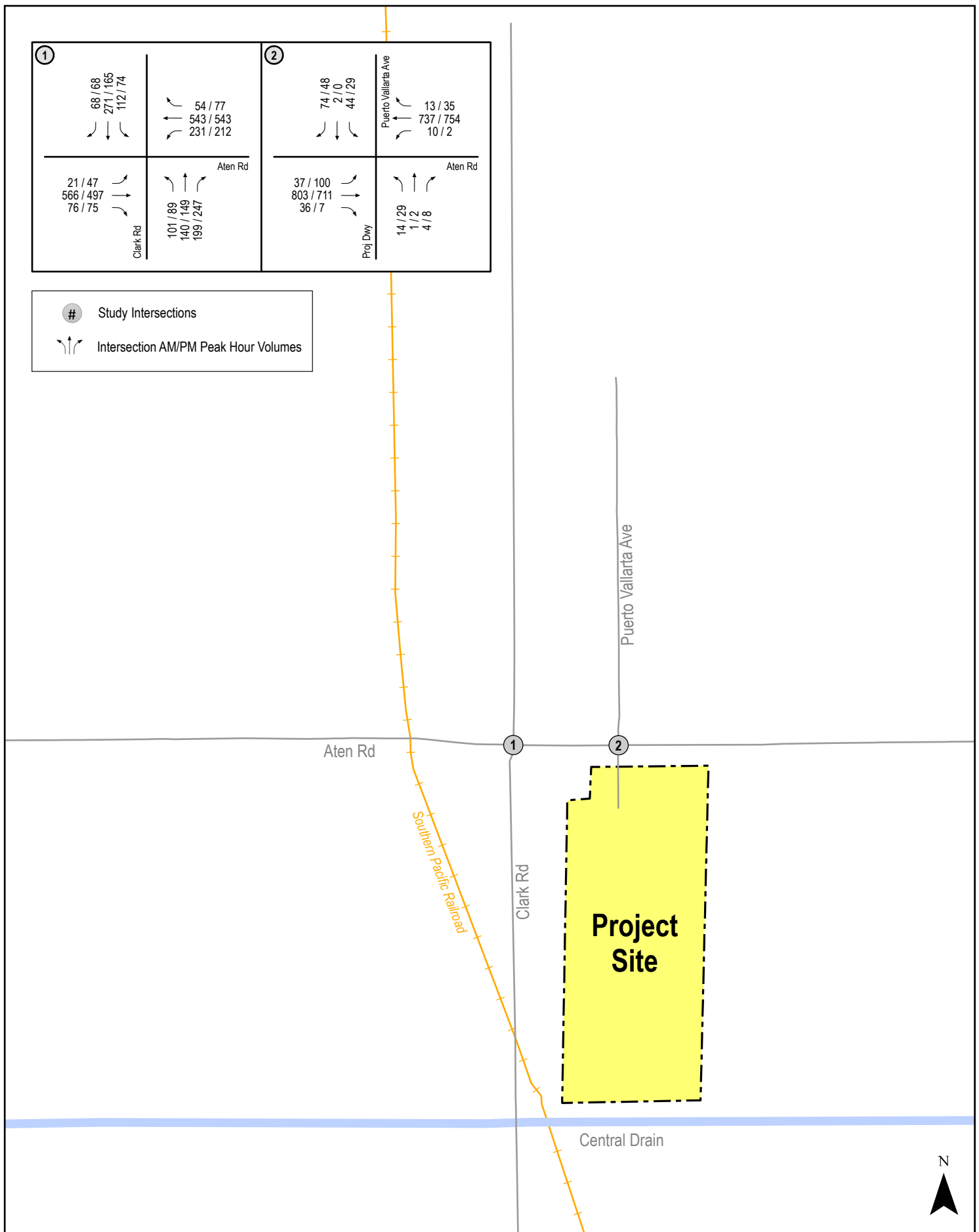














## **ATTACHMENT A**

Counts Unlimited, Inc.  
PO Box 1178  
Corona, CA 92878  
(951) 268-6268

City of Imperial  
N/S: Clark Road  
E/W: Aten Road  
Weather: Clear

File Name : 01\_IPL\_Cla\_Aten AM  
Site Code : 05725765  
Start Date : 8/12/2025  
Page No : 1

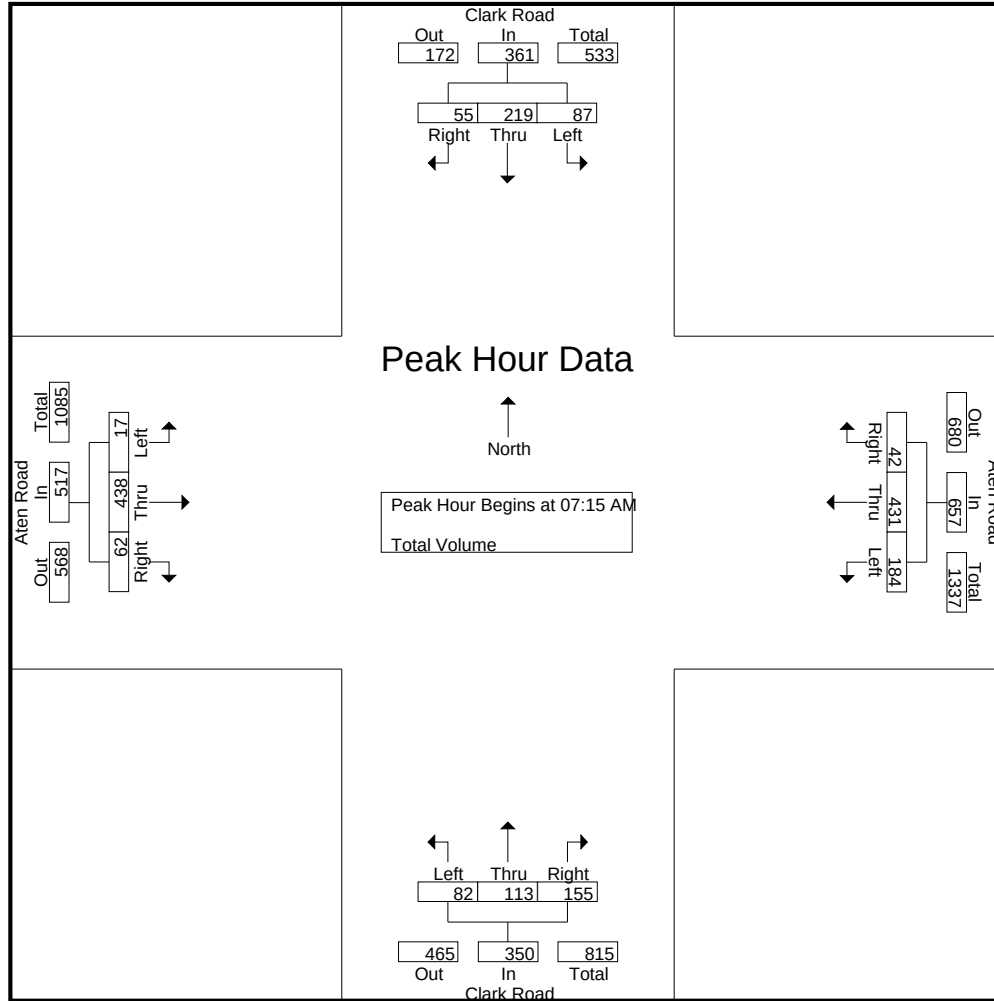
Groups Printed- Total Volume

|             | Clark Road Southbound |      |       |            | Aten Road Westbound |      |       |            | Clark Road Northbound |      |       |            | Aten Road Eastbound |      |       |            |            |
|-------------|-----------------------|------|-------|------------|---------------------|------|-------|------------|-----------------------|------|-------|------------|---------------------|------|-------|------------|------------|
| Start Time  | Left                  | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left                  | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Int. Total |
| 07:00 AM    | 15                    | 31   | 15    | 61         | 23                  | 54   | 11    | 88         | 19                    | 21   | 28    | 68         | 3                   | 50   | 14    | 67         | 284        |
| 07:15 AM    | 22                    | 64   | 9     | 95         | 36                  | 79   | 11    | 126        | 19                    | 24   | 32    | 75         | 5                   | 100  | 11    | 116        | 412        |
| 07:30 AM    | 28                    | 59   | 7     | 94         | 43                  | 122  | 11    | 176        | 15                    | 34   | 53    | 102        | 1                   | 133  | 21    | 155        | 527        |
| 07:45 AM    | 20                    | 59   | 24    | 103        | 55                  | 130  | 9     | 194        | 25                    | 29   | 45    | 99         | 5                   | 136  | 19    | 160        | 556        |
| Total       | 85                    | 213  | 55    | 353        | 157                 | 385  | 42    | 584        | 78                    | 108  | 158   | 344        | 14                  | 419  | 65    | 498        | 1779       |
| 08:00 AM    | 17                    | 37   | 15    | 69         | 50                  | 100  | 11    | 161        | 23                    | 26   | 25    | 74         | 6                   | 69   | 11    | 86         | 390        |
| 08:15 AM    | 10                    | 22   | 25    | 57         | 28                  | 92   | 8     | 128        | 30                    | 16   | 17    | 63         | 4                   | 62   | 13    | 79         | 327        |
| 08:30 AM    | 15                    | 18   | 28    | 61         | 30                  | 87   | 12    | 129        | 22                    | 16   | 21    | 59         | 5                   | 70   | 15    | 90         | 339        |
| 08:45 AM    | 11                    | 23   | 15    | 49         | 38                  | 108  | 13    | 159        | 20                    | 15   | 27    | 62         | 7                   | 71   | 12    | 90         | 360        |
| Total       | 53                    | 100  | 83    | 236        | 146                 | 387  | 44    | 577        | 95                    | 73   | 90    | 258        | 22                  | 272  | 51    | 345        | 1416       |
| Grand Total | 138                   | 313  | 138   | 589        | 303                 | 772  | 86    | 1161       | 173                   | 181  | 248   | 602        | 36                  | 691  | 116   | 843        | 3195       |
| Apprch %    | 23.4                  | 53.1 | 23.4  |            | 26.1                | 66.5 | 7.4   |            | 28.7                  | 30.1 | 41.2  |            | 4.3                 | 82   | 13.8  |            |            |
| Total %     | 4.3                   | 9.8  | 4.3   | 18.4       | 9.5                 | 24.2 | 2.7   | 36.3       | 5.4                   | 5.7  | 7.8   | 18.8       | 1.1                 | 21.6 | 3.6   | 26.4       |            |

|                                                            | Clark Road Southbound |           |           |            | Aten Road Westbound |            |           |            | Clark Road Northbound |           |           |            | Aten Road Eastbound |            |           |            |            |
|------------------------------------------------------------|-----------------------|-----------|-----------|------------|---------------------|------------|-----------|------------|-----------------------|-----------|-----------|------------|---------------------|------------|-----------|------------|------------|
| Start Time                                                 | Left                  | Thru      | Right     | App. Total | Left                | Thru       | Right     | App. Total | Left                  | Thru      | Right     | App. Total | Left                | Thru       | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                       |           |           |            |                     |            |           |            |                       |           |           |            |                     |            |           |            |            |
| Peak Hour for Entire Intersection Begins at 07:15 AM       |                       |           |           |            |                     |            |           |            |                       |           |           |            |                     |            |           |            |            |
| 07:15 AM                                                   | 22                    | <b>64</b> | 9         | 95         | 36                  | 79         | <b>11</b> | 126        | 19                    | 24        | 32        | 75         | 5                   | 100        | 11        | 116        | 412        |
| 07:30 AM                                                   | <b>28</b>             | 59        | 7         | 94         | 43                  | 122        | 11        | 176        | 15                    | <b>34</b> | <b>53</b> | <b>102</b> | 1                   | 133        | <b>21</b> | 155        | 527        |
| 07:45 AM                                                   | 20                    | 59        | <b>24</b> | <b>103</b> | <b>55</b>           | <b>130</b> | 9         | <b>194</b> | <b>25</b>             | 29        | 45        | 99         | 5                   | <b>136</b> | 19        | <b>160</b> | <b>556</b> |
| 08:00 AM                                                   | 17                    | 37        | 15        | 69         | 50                  | 100        | 11        | 161        | 23                    | 26        | 25        | 74         | <b>6</b>            | 69         | 11        | 86         | 390        |
| Total Volume                                               | 87                    | 219       | 55        | 361        | 184                 | 431        | 42        | 657        | 82                    | 113       | 155       | 350        | 17                  | 438        | 62        | 517        | 1885       |
| % App. Total                                               | 24.1                  | 60.7      | 15.2      |            | 28                  | 65.6       | 6.4       |            | 23.4                  | 32.3      | 44.3      |            | 3.3                 | 84.7       | 12        |            |            |
| PHF                                                        | .777                  | .855      | .573      | .876       | .836                | .829       | .955      | .847       | .820                  | .831      | .731      | .858       | .708                | .805       | .738      | .808       | .848       |

City of Imperial  
N/S: Clark Road  
E/W: Aten Road  
Weather: Clear

File Name : 01\_IPL\_Cla\_Aten AM  
Site Code : 05725765  
Start Date : 8/12/2025  
Page No : 2



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

|              | 07:15 AM  |           |           |            | 07:30 AM  |            |           |            | 07:15 AM  |           |           |            | 07:15 AM |            |           |            |
|--------------|-----------|-----------|-----------|------------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|----------|------------|-----------|------------|
| +0 mins.     | 22        | <b>64</b> | 9         | 95         | 43        | 122        | <b>11</b> | 176        | 19        | 24        | 32        | 75         | 5        | 100        | 11        | 116        |
| +15 mins.    | <b>28</b> | 59        | 7         | 94         | <b>55</b> | <b>130</b> | 9         | <b>194</b> | 15        | <b>34</b> | <b>53</b> | <b>102</b> | 1        | 133        | <b>21</b> | 155        |
| +30 mins.    | 20        | 59        | <b>24</b> | <b>103</b> | 50        | 100        | 11        | 161        | <b>25</b> | 29        | 45        | 99         | 5        | <b>136</b> | 19        | <b>160</b> |
| +45 mins.    | 17        | 37        | 15        | 69         | 28        | 92         | 8         | 128        | 23        | 26        | 25        | 74         | <b>6</b> | 69         | 11        | 86         |
| Total Volume | 87        | 219       | 55        | 361        | 176       | 444        | 39        | 659        | 82        | 113       | 155       | 350        | 17       | 438        | 62        | 517        |
| % App. Total | 24.1      | 60.7      | 15.2      |            | 26.7      | 67.4       | 5.9       |            | 23.4      | 32.3      | 44.3      |            | 3.3      | 84.7       | 12        |            |
| PHF          | .777      | .855      | .573      | .876       | .800      | .854       | .886      | .849       | .820      | .831      | .731      | .858       | .708     | .805       | .738      | .808       |

City of Imperial  
N/S: Clark Road  
E/W: Aten Road  
Weather: Clear

File Name : 01\_IPL\_Cla\_Aten PM  
Site Code : 05725765  
Start Date : 8/12/2025  
Page No : 1

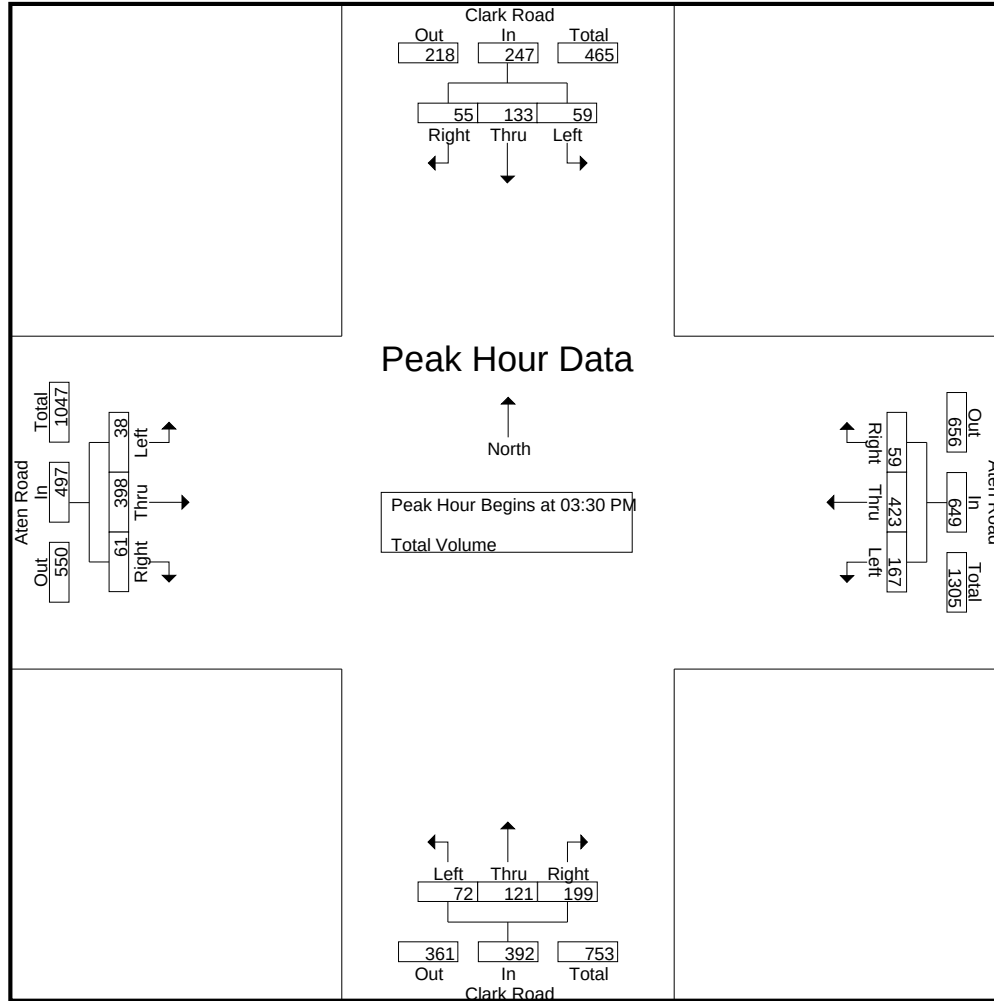
Groups Printed- Total Volume

|             | Clark Road Southbound |      |       |            | Aten Road Westbound |      |       |            | Clark Road Northbound |      |       |            | Aten Road Eastbound |      |       |            |            |
|-------------|-----------------------|------|-------|------------|---------------------|------|-------|------------|-----------------------|------|-------|------------|---------------------|------|-------|------------|------------|
| Start Time  | Left                  | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left                  | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Int. Total |
| 03:00 PM    | 17                    | 39   | 11    | 67         | 39                  | 98   | 17    | 154        | 18                    | 30   | 48    | 96         | 1                   | 81   | 14    | 96         | 413        |
| 03:15 PM    | 13                    | 30   | 7     | 50         | 56                  | 89   | 19    | 164        | 16                    | 30   | 41    | 87         | 1                   | 73   | 16    | 90         | 391        |
| 03:30 PM    | 20                    | 35   | 16    | 71         | 46                  | 107  | 19    | 172        | 19                    | 41   | 45    | 105        | 8                   | 84   | 15    | 107        | 455        |
| 03:45 PM    | 11                    | 39   | 13    | 63         | 38                  | 122  | 12    | 172        | 17                    | 28   | 49    | 94         | 7                   | 96   | 16    | 119        | 448        |
| Total       | 61                    | 143  | 47    | 251        | 179                 | 416  | 67    | 662        | 70                    | 129  | 183   | 382        | 17                  | 334  | 61    | 412        | 1707       |
| 04:00 PM    | 19                    | 28   | 15    | 62         | 37                  | 102  | 16    | 155        | 21                    | 23   | 53    | 97         | 15                  | 117  | 18    | 150        | 464        |
| 04:15 PM    | 9                     | 31   | 11    | 51         | 46                  | 92   | 12    | 150        | 15                    | 29   | 52    | 96         | 8                   | 101  | 12    | 121        | 418        |
| 04:30 PM    | 13                    | 20   | 10    | 43         | 35                  | 88   | 15    | 138        | 16                    | 38   | 56    | 110        | 13                  | 105  | 17    | 135        | 426        |
| 04:45 PM    | 13                    | 27   | 13    | 53         | 35                  | 89   | 15    | 139        | 20                    | 29   | 64    | 113        | 13                  | 99   | 22    | 134        | 439        |
| Total       | 54                    | 106  | 49    | 209        | 153                 | 371  | 58    | 582        | 72                    | 119  | 225   | 416        | 49                  | 422  | 69    | 540        | 1747       |
| Grand Total | 115                   | 249  | 96    | 460        | 332                 | 787  | 125   | 1244       | 142                   | 248  | 408   | 798        | 66                  | 756  | 130   | 952        | 3454       |
| Apprch %    | 25                    | 54.1 | 20.9  |            | 26.7                | 63.3 | 10    |            | 17.8                  | 31.1 | 51.1  |            | 6.9                 | 79.4 | 13.7  |            |            |
| Total %     | 3.3                   | 7.2  | 2.8   | 13.3       | 9.6                 | 22.8 | 3.6   | 36         | 4.1                   | 7.2  | 11.8  | 23.1       | 1.9                 | 21.9 | 3.8   | 27.6       |            |

|                                                            | Clark Road Southbound |           |           |            | Aten Road Westbound |            |           |            | Clark Road Northbound |           |           |            | Aten Road Eastbound |            |           |            |            |
|------------------------------------------------------------|-----------------------|-----------|-----------|------------|---------------------|------------|-----------|------------|-----------------------|-----------|-----------|------------|---------------------|------------|-----------|------------|------------|
| Start Time                                                 | Left                  | Thru      | Right     | App. Total | Left                | Thru       | Right     | App. Total | Left                  | Thru      | Right     | App. Total | Left                | Thru       | Right     | App. Total | Int. Total |
| Peak Hour Analysis From 03:00 PM to 04:45 PM - Peak 1 of 1 |                       |           |           |            |                     |            |           |            |                       |           |           |            |                     |            |           |            |            |
| Peak Hour for Entire Intersection Begins at 03:30 PM       |                       |           |           |            |                     |            |           |            |                       |           |           |            |                     |            |           |            |            |
| 03:30 PM                                                   | <b>20</b>             | 35        | <b>16</b> | <b>71</b>  | <b>46</b>           | 107        | <b>19</b> | <b>172</b> | 19                    | <b>41</b> | 45        | <b>105</b> | 8                   | 84         | 15        | 107        | 455        |
| 03:45 PM                                                   | 11                    | <b>39</b> | 13        | 63         | 38                  | <b>122</b> | 12        | 172        | 17                    | 28        | 49        | 94         | 7                   | 96         | 16        | 119        | 448        |
| 04:00 PM                                                   | 19                    | 28        | 15        | 62         | 37                  | 102        | 16        | 155        | <b>21</b>             | 23        | <b>53</b> | 97         | <b>15</b>           | <b>117</b> | <b>18</b> | <b>150</b> | <b>464</b> |
| 04:15 PM                                                   | 9                     | 31        | 11        | 51         | 46                  | 92         | 12        | 150        | 15                    | 29        | 52        | 96         | 8                   | 101        | 12        | 121        | 418        |
| Total Volume                                               | 59                    | 133       | 55        | 247        | 167                 | 423        | 59        | 649        | 72                    | 121       | 199       | 392        | 38                  | 398        | 61        | 497        | 1785       |
| % App. Total                                               | 23.9                  | 53.8      | 22.3      |            | 25.7                | 65.2       | 9.1       |            | 18.4                  | 30.9      | 50.8      |            | 7.6                 | 80.1       | 12.3      |            |            |
| PHF                                                        | .738                  | .853      | .859      | .870       | .908                | .867       | .776      | .943       | .857                  | .738      | .939      | .933       | .633                | .850       | .847      | .828       | .962       |

City of Imperial  
N/S: Clark Road  
E/W: Aten Road  
Weather: Clear

File Name : 01\_IPL\_Cla\_Aten PM  
Site Code : 05725765  
Start Date : 8/12/2025  
Page No : 2



Peak Hour Analysis From 03:00 PM to 04:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

|              | 03:00 PM  |           |           |           | 03:15 PM  |            |           |            | 04:00 PM  |           |           |            | 04:00 PM  |            |           |            |
|--------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|-----------|------------|-----------|------------|-----------|------------|
| +0 mins.     | 17        | <b>39</b> | 11        | 67        | <b>56</b> | 89         | <b>19</b> | 164        | <b>21</b> | 23        | 53        | 97         | <b>15</b> | <b>117</b> | 18        | <b>150</b> |
| +15 mins.    | 13        | 30        | 7         | 50        | 46        | 107        | 19        | <b>172</b> | 15        | 29        | 52        | 96         | 8         | 101        | 12        | 121        |
| +30 mins.    | <b>20</b> | 35        | <b>16</b> | <b>71</b> | 38        | <b>122</b> | 12        | 172        | 16        | <b>38</b> | 56        | 110        | 13        | 105        | 17        | 135        |
| +45 mins.    | 11        | 39        | 13        | 63        | 37        | 102        | 16        | 155        | 20        | 29        | <b>64</b> | <b>113</b> | 13        | 99         | <b>22</b> | 134        |
| Total Volume | 61        | 143       | 47        | 251       | 177       | 420        | 66        | 663        | 72        | 119       | 225       | 416        | 49        | 422        | 69        | 540        |
| % App. Total | 24.3      | 57        | 18.7      |           | 26.7      | 63.3       | 10        |            | 17.3      | 28.6      | 54.1      |            | 9.1       | 78.1       | 12.8      |            |
| PHF          | .763      | .917      | .734      | .884      | .790      | .861       | .868      | .964       | .857      | .783      | .879      | .920       | .817      | .902       | .784      | .900       |





## **ATTACHMENT B**

Opening Year AM  
1: W. Aten Rd & Clark Rd

Imperial County Data Center  
09/08/2025

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |                                                                                     |  |  |  |  |  |
| Traffic Volume (veh/h)       | 21                                                                                | 542                                                                               | 76                                                                                | 228                                                                               | 533                                                                               | 52                                                                                | 101                                                                                 | 140                                                                                 | 192                                                                                 | 107                                                                                 | 271                                                                                 | 68                                                                                  |
| Future Volume (veh/h)        | 21                                                                                | 542                                                                               | 76                                                                                | 228                                                                               | 533                                                                               | 52                                                                                | 101                                                                                 | 140                                                                                 | 192                                                                                 | 107                                                                                 | 271                                                                                 | 68                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width 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                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 26                                                                                | 669                                                                               | 94                                                                                | 268                                                                               | 627                                                                               | 61                                                                                | 117                                                                                 | 163                                                                                 | 223                                                                                 | 122                                                                                 | 308                                                                                 | 77                                                                                  |
| Peak Hour Factor             | 0.81                                                                              | 0.81                                                                              | 0.81                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.86                                                                                | 0.86                                                                                | 0.86                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 46                                                                                | 834                                                                               | 372                                                                               | 301                                                                               | 1237                                                                              | 120                                                                               | 134                                                                                 | 187                                                                                 | 278                                                                                 | 362                                                                                 | 380                                                                                 | 322                                                                                 |
| Arrive On Green              | 0.03                                                                              | 0.23                                                                              | 0.23                                                                              | 0.17                                                                              | 0.38                                                                              | 0.38                                                                              | 0.18                                                                                | 0.18                                                                                | 0.18                                                                                | 0.20                                                                                | 0.20                                                                                | 0.20                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1585                                                                              | 1781                                                                              | 3272                                                                              | 318                                                                               | 766                                                                                 | 1067                                                                                | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Grp Volume(v), veh/h         | 26                                                                                | 669                                                                               | 94                                                                                | 268                                                                               | 340                                                                               | 348                                                                               | 280                                                                                 | 0                                                                                   | 223                                                                                 | 122                                                                                 | 308                                                                                 | 77                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1813                                                                              | 1832                                                                                | 0                                                                                   | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Q Serve(g_s), s              | 1.4                                                                               | 17.7                                                                              | 4.8                                                                               | 14.6                                                                              | 14.7                                                                              | 14.7                                                                              | 14.8                                                                                | 0.0                                                                                 | 13.4                                                                                | 5.8                                                                                 | 15.6                                                                                | 4.1                                                                                 |
| Cycle Q Clear(g_c), s        | 1.4                                                                               | 17.7                                                                              | 4.8                                                                               | 14.6                                                                              | 14.7                                                                              | 14.7                                                                              | 14.8                                                                                | 0.0                                                                                 | 13.4                                                                                | 5.8                                                                                 | 15.6                                                                                | 4.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.18                                                                              | 0.42                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 46                                                                                | 834                                                                               | 372                                                                               | 301                                                                               | 672                                                                               | 686                                                                               | 321                                                                                 | 0                                                                                   | 278                                                                                 | 362                                                                                 | 380                                                                                 | 322                                                                                 |
| V/C Ratio(X)                 | 0.57                                                                              | 0.80                                                                              | 0.25                                                                              | 0.89                                                                              | 0.51                                                                              | 0.51                                                                              | 0.87                                                                                | 0.00                                                                                | 0.80                                                                                | 0.34                                                                                | 0.81                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h        | 143                                                                               | 1210                                                                              | 540                                                                               | 345                                                                               | 807                                                                               | 823                                                                               | 351                                                                                 | 0                                                                                   | 304                                                                                 | 734                                                                                 | 770                                                                                 | 653                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 47.9                                                                              | 35.9                                                                              | 31.0                                                                              | 40.5                                                                              | 23.8                                                                              | 23.8                                                                              | 40.0                                                                                | 0.0                                                                                 | 39.4                                                                                | 33.9                                                                                | 37.8                                                                                | 33.2                                                                                |
| Incr Delay (d2), s/veh       | 10.5                                                                              | 2.5                                                                               | 0.4                                                                               | 21.7                                                                              | 0.6                                                                               | 0.6                                                                               | 19.6                                                                                | 0.0                                                                                 | 13.4                                                                                | 0.5                                                                                 | 4.2                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.7                                                                               | 7.4                                                                               | 1.8                                                                               | 7.9                                                                               | 5.7                                                                               | 5.9                                                                               | 8.4                                                                                 | 0.0                                                                                 | 6.3                                                                                 | 2.6                                                                                 | 7.6                                                                                 | 1.6                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 58.5                                                                              | 38.5                                                                              | 31.3                                                                              | 62.2                                                                              | 24.4                                                                              | 24.4                                                                              | 59.5                                                                                | 0.0                                                                                 | 52.8                                                                                | 34.5                                                                                | 42.0                                                                                | 33.6                                                                                |
| LnGrp LOS                    | E                                                                                 | D                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | E                                                                                   |                                                                                     | D                                                                                   | C                                                                                   | D                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 789                                                                               |                                                                                   |                                                                                   | 956                                                                               |                                                                                   |                                                                                   | 503                                                                                 |                                                                                     |                                                                                     | 507                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 38.3                                                                              |                                                                                   |                                                                                   | 35.0                                                                              |                                                                                   |                                                                                   | 56.6                                                                                |                                                                                     |                                                                                     | 38.9                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | E                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 21.5                                                                              | 29.9                                                                              |                                                                                   | 25.6                                                                              | 7.3                                                                               | 44.1                                                                              |                                                                                     | 22.5                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.7                                                                               | 6.5                                                                               |                                                                                   | 5.4                                                                               | 4.7                                                                               | 6.5                                                                               |                                                                                     | 5.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.3                                                                              | 33.9                                                                              |                                                                                   | 41.0                                                                              | 8.0                                                                               | 45.2                                                                              |                                                                                     | 19.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 16.6                                                                              | 19.7                                                                              |                                                                                   | 17.6                                                                              | 3.4                                                                               | 16.7                                                                              |                                                                                     | 16.8                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.2                                                                               | 3.7                                                                               |                                                                                   | 2.6                                                                               | 0.0                                                                               | 3.9                                                                               |                                                                                     | 0.6                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| <b>Intersection Summary</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 40.6                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.6                                                                               |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 37                                                                                | 803                                                                               | 737                                                                               | 13   | 44                                                                                | 74   |
| Future Vol, veh/h        | 37                                                                                | 803                                                                               | 737                                                                               | 13   | 44                                                                                | 74   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 220                                                                               | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 88                                                                                | 88                                                                                | 88                                                                                | 88   | 88                                                                                | 88   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 42                                                                                | 913                                                                               | 838                                                                               | 15   | 50                                                                                | 84   |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 852    | 0      | 0 1385 426  |
| Stage 1              | -      | -      | - 845 -     |
| Stage 2              | -      | -      | - 540 -     |
| Critical Hdwy        | 4.14   | -      | - 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | - 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | - 5.84 -    |
| Follow-up Hdwy       | 2.22   | -      | - 3.52 3.32 |
| Pot Cap-1 Maneuver   | 782    | -      | - 134 577   |
| Stage 1              | -      | -      | - 382 -     |
| Stage 2              | -      | -      | - 548 -     |
| Platoon blocked, %   |        | -      | -           |
| Mov Cap-1 Maneuver   | 782    | -      | - 127 577   |
| Mov Cap-2 Maneuver   | -      | -      | - 127 -     |
| Stage 1              | -      | -      | - 361 -     |
| Stage 2              | -      | -      | - 548 -     |

| Approach          | EB   | WB | SB    |
|-------------------|------|----|-------|
| HCM Ctrl Dly, s/v | 0.43 | 0  | 35.22 |
| HCM LOS           |      |    | E     |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 782   | -   | -   | -   | 249   |
| HCM Lane V/C Ratio    | 0.054 | -   | -   | -   | 0.539 |
| HCM Ctrl Dly (s/v)    | 9.9   | -   | -   | -   | 35.2  |
| HCM Lane LOS          | A     | -   | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | -   | 2.9   |

Opening Year PM  
1: W. Aten Rd & Clark Rd

Imperial County Data Center  
09/08/2025

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |                                                                                     |  |  |  |  |  |
| Traffic Volume (veh/h)       | 47                                                                                | 492                                                                               | 75                                                                                | 206                                                                               | 523                                                                               | 73                                                                                | 89                                                                                  | 149                                                                                 | 246                                                                                 | 73                                                                                  | 165                                                                                 | 68                                                                                  |
| Future Volume (veh/h)        | 47                                                                                | 492                                                                               | 75                                                                                | 206                                                                               | 523                                                                               | 73                                                                                | 89                                                                                  | 149                                                                                 | 246                                                                                 | 73                                                                                  | 165                                                                                 | 68                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width 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                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 57                                                                                | 593                                                                               | 90                                                                                | 219                                                                               | 556                                                                               | 78                                                                                | 96                                                                                  | 160                                                                                 | 265                                                                                 | 84                                                                                  | 190                                                                                 | 78                                                                                  |
| Peak Hour Factor             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.93                                                                                | 0.93                                                                                | 0.93                                                                                | 0.87                                                                                | 0.87                                                                                | 0.87                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 82                                                                                | 817                                                                               | 364                                                                               | 243                                                                               | 1003                                                                              | 140                                                                               | 138                                                                                 | 230                                                                                 | 317                                                                                 | 259                                                                                 | 272                                                                                 | 231                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.23                                                                              | 0.23                                                                              | 0.14                                                                              | 0.32                                                                              | 0.32                                                                              | 0.20                                                                                | 0.20                                                                                | 0.20                                                                                | 0.15                                                                                | 0.15                                                                                | 0.15                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1585                                                                              | 1781                                                                              | 3130                                                                              | 438                                                                               | 688                                                                                 | 1147                                                                                | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Grp Volume(v), veh/h         | 57                                                                                | 593                                                                               | 90                                                                                | 219                                                                               | 315                                                                               | 319                                                                               | 256                                                                                 | 0                                                                                   | 265                                                                                 | 84                                                                                  | 190                                                                                 | 78                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1792                                                                              | 1836                                                                                | 0                                                                                   | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Q Serve(g_s), s              | 2.4                                                                               | 11.6                                                                              | 3.5                                                                               | 9.1                                                                               | 11.0                                                                              | 11.1                                                                              | 9.8                                                                                 | 0.0                                                                                 | 12.1                                                                                | 3.2                                                                                 | 7.3                                                                                 | 3.3                                                                                 |
| Cycle Q Clear(g_c), s        | 2.4                                                                               | 11.6                                                                              | 3.5                                                                               | 9.1                                                                               | 11.0                                                                              | 11.1                                                                              | 9.8                                                                                 | 0.0                                                                                 | 12.1                                                                                | 3.2                                                                                 | 7.3                                                                                 | 3.3                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.24                                                                              | 0.37                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 82                                                                                | 817                                                                               | 364                                                                               | 243                                                                               | 569                                                                               | 574                                                                               | 367                                                                                 | 0                                                                                   | 317                                                                                 | 259                                                                                 | 272                                                                                 | 231                                                                                 |
| V/C Ratio(X)                 | 0.69                                                                              | 0.73                                                                              | 0.25                                                                              | 0.90                                                                              | 0.55                                                                              | 0.56                                                                              | 0.70                                                                                | 0.00                                                                                | 0.84                                                                                | 0.32                                                                                | 0.70                                                                                | 0.34                                                                                |
| Avail Cap(c_a), veh/h        | 189                                                                               | 1602                                                                              | 715                                                                               | 243                                                                               | 855                                                                               | 862                                                                               | 438                                                                                 | 0                                                                                   | 378                                                                                 | 968                                                                                 | 1017                                                                                | 862                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 35.4                                                                              | 26.8                                                                              | 23.7                                                                              | 32.0                                                                              | 21.2                                                                              | 21.2                                                                              | 28.0                                                                                | 0.0                                                                                 | 29.0                                                                                | 28.9                                                                                | 30.6                                                                                | 28.9                                                                                |
| Incr Delay (d2), s/veh       | 9.9                                                                               | 1.2                                                                               | 0.3                                                                               | 32.6                                                                              | 0.8                                                                               | 0.8                                                                               | 3.8                                                                                 | 0.0                                                                                 | 13.0                                                                                | 0.7                                                                                 | 3.2                                                                                 | 0.9                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.2                                                                               | 4.5                                                                               | 1.2                                                                               | 5.8                                                                               | 4.1                                                                               | 4.2                                                                               | 4.6                                                                                 | 0.0                                                                                 | 5.6                                                                                 | 1.4                                                                                 | 3.5                                                                                 | 1.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 45.4                                                                              | 28.1                                                                              | 24.1                                                                              | 64.6                                                                              | 22.0                                                                              | 22.0                                                                              | 31.9                                                                                | 0.0                                                                                 | 42.0                                                                                | 29.6                                                                                | 33.8                                                                                | 29.8                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | C                                                                                   |                                                                                     | D                                                                                   | C                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 740                                                                               |                                                                                   |                                                                                   | 853                                                                               |                                                                                   |                                                                                   | 521                                                                                 |                                                                                     |                                                                                     | 352                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 28.9                                                                              |                                                                                   |                                                                                   | 33.0                                                                              |                                                                                   |                                                                                   | 37.0                                                                                |                                                                                     |                                                                                     | 31.9                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | D                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 15.0                                                                              | 23.8                                                                              |                                                                                   | 16.4                                                                              | 8.2                                                                               | 30.7                                                                              |                                                                                     | 20.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.7                                                                               | 6.5                                                                               |                                                                                   | 5.4                                                                               | 4.7                                                                               | 6.5                                                                               |                                                                                     | 5.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.3                                                                              | 34.0                                                                              |                                                                                   | 41.0                                                                              | 8.0                                                                               | 36.3                                                                              |                                                                                     | 18.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 11.1                                                                              | 13.6                                                                              |                                                                                   | 9.3                                                                               | 4.4                                                                               | 13.1                                                                              |                                                                                     | 14.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 3.7                                                                               |                                                                                   | 1.7                                                                               | 0.0                                                                               | 3.4                                                                               |                                                                                     | 1.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 32.5                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | C                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |                                                                                   |                                                                                   |      |                                                                                   |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.4                                                                               |                                                                                   |                                                                                   |      |                                                                                   |      |
| Movement                 | EBL                                                                               | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR  |
| Lane Configurations      |  |  |  |      |  |      |
| Traffic Vol, veh/h       | 100                                                                               | 711                                                                               | 754                                                                               | 35   | 29                                                                                | 48   |
| Future Vol, veh/h        | 100                                                                               | 711                                                                               | 754                                                                               | 35   | 29                                                                                | 48   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop |
| RT Channelized           | -                                                                                 | None                                                                              | -                                                                                 | None | -                                                                                 | None |
| Storage Length           | 220                                                                               | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    |
| Mvmt Flow                | 115                                                                               | 817                                                                               | 867                                                                               | 40   | 33                                                                                | 55   |

| Major/Minor          | Major1 | Major2 | Minor2      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 907    | 0      | 0 1525 453  |
| Stage 1              | -      | -      | - 887 -     |
| Stage 2              | -      | -      | - 639 -     |
| Critical Hdwy        | 4.14   | -      | - 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | - 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | - 5.84 -    |
| Follow-up Hdwy       | 2.22   | -      | - 3.52 3.32 |
| Pot Cap-1 Maneuver   | 746    | -      | - 109 554   |
| Stage 1              | -      | -      | - 363 -     |
| Stage 2              | -      | -      | - 488 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | 746    | -      | - 92 554    |
| Mov Cap-2 Maneuver   | -      | -      | - 92 -      |
| Stage 1              | -      | -      | - 307 -     |
| Stage 2              | -      | -      | - 488 -     |

| Approach          | EB   | WB | SB    |
|-------------------|------|----|-------|
| HCM Ctrl Dly, s/v | 1.32 | 0  | 39.08 |
| HCM LOS           |      |    | E     |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 746   | -   | -   | -   | 191   |
| HCM Lane V/C Ratio    | 0.154 | -   | -   | -   | 0.463 |
| HCM Ctrl Dly (s/v)    | 10.7  | -   | -   | -   | 39.1  |
| HCM Lane LOS          | B     | -   | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | -   | 2.2   |

Opening Year + Project AM  
1: W. Aten Rd & Clark Rd

Imperial County Data Center  
09/08/2025

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |                                                                                     |  |  |  |  |  |
| Traffic Volume (veh/h)       | 21                                                                                | 566                                                                               | 76                                                                                | 231                                                                               | 543                                                                               | 54                                                                                | 101                                                                                 | 140                                                                                 | 199                                                                                 | 112                                                                                 | 271                                                                                 | 68                                                                                  |
| Future Volume (veh/h)        | 21                                                                                | 566                                                                               | 76                                                                                | 231                                                                               | 543                                                                               | 54                                                                                | 101                                                                                 | 140                                                                                 | 199                                                                                 | 112                                                                                 | 271                                                                                 | 68                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width 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                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 26                                                                                | 699                                                                               | 94                                                                                | 272                                                                               | 639                                                                               | 64                                                                                | 117                                                                                 | 163                                                                                 | 231                                                                                 | 127                                                                                 | 308                                                                                 | 77                                                                                  |
| Peak Hour Factor             | 0.81                                                                              | 0.81                                                                              | 0.81                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.86                                                                                | 0.86                                                                                | 0.86                                                                                | 0.88                                                                                | 0.88                                                                                | 0.88                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 45                                                                                | 858                                                                               | 383                                                                               | 304                                                                               | 1261                                                                              | 126                                                                               | 133                                                                                 | 185                                                                                 | 275                                                                                 | 360                                                                                 | 378                                                                                 | 320                                                                                 |
| Arrive On Green              | 0.03                                                                              | 0.24                                                                              | 0.24                                                                              | 0.17                                                                              | 0.39                                                                              | 0.39                                                                              | 0.17                                                                                | 0.17                                                                                | 0.17                                                                                | 0.20                                                                                | 0.20                                                                                | 0.20                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1585                                                                              | 1781                                                                              | 3262                                                                              | 326                                                                               | 766                                                                                 | 1067                                                                                | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Grp Volume(v), veh/h         | 26                                                                                | 699                                                                               | 94                                                                                | 272                                                                               | 348                                                                               | 355                                                                               | 280                                                                                 | 0                                                                                   | 231                                                                                 | 127                                                                                 | 308                                                                                 | 77                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1812                                                                              | 1832                                                                                | 0                                                                                   | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Q Serve(g_s), s              | 1.5                                                                               | 19.0                                                                              | 4.9                                                                               | 15.3                                                                              | 15.3                                                                              | 15.3                                                                              | 15.2                                                                                | 0.0                                                                                 | 14.4                                                                                | 6.3                                                                                 | 16.1                                                                                | 4.2                                                                                 |
| Cycle Q Clear(g_c), s        | 1.5                                                                               | 19.0                                                                              | 4.9                                                                               | 15.3                                                                              | 15.3                                                                              | 15.3                                                                              | 15.2                                                                                | 0.0                                                                                 | 14.4                                                                                | 6.3                                                                                 | 16.1                                                                                | 4.2                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.18                                                                              | 0.42                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 45                                                                                | 858                                                                               | 383                                                                               | 304                                                                               | 687                                                                               | 700                                                                               | 318                                                                                 | 0                                                                                   | 275                                                                                 | 360                                                                                 | 378                                                                                 | 320                                                                                 |
| V/C Ratio(X)                 | 0.57                                                                              | 0.81                                                                              | 0.25                                                                              | 0.90                                                                              | 0.51                                                                              | 0.51                                                                              | 0.88                                                                                | 0.00                                                                                | 0.84                                                                                | 0.35                                                                                | 0.81                                                                                | 0.24                                                                                |
| Avail Cap(c_a), veh/h        | 139                                                                               | 1178                                                                              | 525                                                                               | 336                                                                               | 785                                                                               | 801                                                                               | 342                                                                                 | 0                                                                                   | 296                                                                                 | 714                                                                                 | 750                                                                                 | 635                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 49.3                                                                              | 36.6                                                                              | 31.3                                                                              | 41.5                                                                              | 23.9                                                                              | 23.9                                                                              | 41.2                                                                                | 0.0                                                                                 | 40.9                                                                                | 35.1                                                                                | 39.0                                                                                | 34.2                                                                                |
| Incr Delay (d2), s/veh       | 10.8                                                                              | 3.2                                                                               | 0.3                                                                               | 23.6                                                                              | 0.6                                                                               | 0.6                                                                               | 21.3                                                                                | 0.0                                                                                 | 17.9                                                                                | 0.6                                                                                 | 4.3                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.8                                                                               | 8.1                                                                               | 1.8                                                                               | 8.3                                                                               | 6.0                                                                               | 6.1                                                                               | 8.8                                                                                 | 0.0                                                                                 | 7.0                                                                                 | 2.8                                                                                 | 7.8                                                                                 | 1.7                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 60.1                                                                              | 39.8                                                                              | 31.6                                                                              | 65.2                                                                              | 24.5                                                                              | 24.5                                                                              | 62.5                                                                                | 0.0                                                                                 | 58.8                                                                                | 35.6                                                                                | 43.3                                                                                | 34.6                                                                                |
| LnGrp LOS                    | E                                                                                 | D                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | E                                                                                   |                                                                                     | E                                                                                   | D                                                                                   | D                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 819                                                                               |                                                                                   |                                                                                   | 975                                                                               |                                                                                   |                                                                                   | 511                                                                                 |                                                                                     |                                                                                     | 512                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 39.5                                                                              |                                                                                   |                                                                                   | 35.9                                                                              |                                                                                   |                                                                                   | 60.8                                                                                |                                                                                     |                                                                                     | 40.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | D                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | E                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 22.1                                                                              | 31.2                                                                              |                                                                                   | 26.1                                                                              | 7.3                                                                               | 46.0                                                                              |                                                                                     | 22.9                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.7                                                                               | 6.5                                                                               |                                                                                   | 5.4                                                                               | 4.7                                                                               | 6.5                                                                               |                                                                                     | 5.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 19.3                                                                              | 33.9                                                                              |                                                                                   | 41.0                                                                              | 8.0                                                                               | 45.2                                                                              |                                                                                     | 19.1                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 17.3                                                                              | 21.0                                                                              |                                                                                   | 18.1                                                                              | 3.5                                                                               | 17.3                                                                              |                                                                                     | 17.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.2                                                                               | 3.7                                                                               |                                                                                   | 2.6                                                                               | 0.0                                                                               | 4.0                                                                               |                                                                                     | 0.5                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 42.2                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | D                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 5.4                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 37                                                                                | 803                                                                               | 36   | 10                                                                                | 737                                                                               | 13   | 14   | 1                                                                                 | 4    | 44   | 2                                                                                   | 74   |
| Future Vol, veh/h        | 37                                                                                | 803                                                                               | 36   | 10                                                                                | 737                                                                               | 13   | 14   | 1                                                                                 | 4    | 44   | 2                                                                                   | 74   |
| 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           | 220                                                                               | -                                                                                 | -    | 220                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 88                                                                                | 88                                                                                | 88   | 88                                                                                | 88                                                                                | 88   | 88   | 88                                                                                | 88   | 88   | 88                                                                                  | 88   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 42                                                                                | 913                                                                               | 41   | 11                                                                                | 838                                                                               | 15   | 16   | 1                                                                                 | 5    | 50   | 2                                                                                   | 84   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |      | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 852    | 0 | 0 | 953    | 0 | 0 | 1460   | 1892 | 477  | 1409   | 1905 | 426  |
| Stage 1              | -      | - | - | -      | - | - | 1017   | 1017 | -    | 868    | 868  | -    |
| Stage 2              | -      | - | - | -      | - | - | 443    | 875  | -    | 541    | 1038 | -    |
| Critical Hdwy        | 4.14   | - | - | 4.14   | - | - | 7.54   | 6.54 | 6.94 | 7.54   | 6.54 | 6.94 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.54   | 5.54 | -    | 6.54   | 5.54 | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.54   | 5.54 | -    | 6.54   | 5.54 | -    |
| Follow-up Hdwy       | 2.22   | - | - | 2.22   | - | - | 3.52   | 4.02 | 3.32 | 3.52   | 4.02 | 3.32 |
| Pot Cap-1 Maneuver   | 782    | - | - | 716    | - | - | 90     | 69   | 535  | 99     | 68   | 577  |
| Stage 1              | -      | - | - | -      | - | - | 254    | 313  | -    | 314    | 368  | -    |
| Stage 2              | -      | - | - | -      | - | - | 564    | 365  | -    | 493    | 306  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver   | 782    | - | - | 716    | - | - | 69     | 64   | 535  | 90     | 63   | 577  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 69     | 64   | -    | 90     | 63   | -    |
| Stage 1              | -      | - | - | -      | - | - | 241    | 296  | -    | 309    | 362  | -    |
| Stage 2              | -      | - | - | -      | - | - | 471    | 359  | -    | 461    | 290  | -    |

| Approach          | EB   |  |  | WB   |  |  | NB    |  |  | SB    |  |  |
|-------------------|------|--|--|------|--|--|-------|--|--|-------|--|--|
| HCM Ctrl Dly, s/v | 0.42 |  |  | 0.13 |  |  | 61.57 |  |  | 65.72 |  |  |
| HCM LOS           |      |  |  |      |  |  | F     |  |  | F     |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 85    | 782   | -   | -   | 716   | -   | -   | 184   |
| HCM Lane V/C Ratio    | 0.255 | 0.054 | -   | -   | 0.016 | -   | -   | 0.74  |
| HCM Ctrl Dly (s/v)    | 61.6  | 9.9   | -   | -   | 10.1  | -   | -   | 65.7  |
| HCM Lane LOS          | F     | A     | -   | -   | B     | -   | -   | F     |
| HCM 95th %tile Q(veh) | 0.9   | 0.2   | -   | -   | 0     | -   | -   | 4.8   |

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |  |  |  |                                                                                   |                                                                                    |  |  |  |  |  |
| Traffic Volume (veh/h)       | 47                                                                                | 497                                                                               | 75                                                                                | 212                                                                               | 543                                                                               | 77                                                                                | 89                                                                                 | 149                                                                                 | 247                                                                                 | 74                                                                                  | 165                                                                                 | 68                                                                                  |
| Future Volume (veh/h)        | 47                                                                                | 497                                                                               | 75                                                                                | 212                                                                               | 543                                                                               | 77                                                                                | 89                                                                                 | 149                                                                                 | 247                                                                                 | 74                                                                                  | 165                                                                                 | 68                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width 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                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                 |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                               | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 57                                                                                | 599                                                                               | 90                                                                                | 226                                                                               | 578                                                                               | 82                                                                                | 96                                                                                 | 160                                                                                 | 266                                                                                 | 85                                                                                  | 190                                                                                 | 78                                                                                  |
| Peak Hour Factor             | 0.83                                                                              | 0.83                                                                              | 0.83                                                                              | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.93                                                                               | 0.93                                                                                | 0.93                                                                                | 0.87                                                                                | 0.87                                                                                | 0.87                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 82                                                                                | 823                                                                               | 367                                                                               | 242                                                                               | 1005                                                                              | 142                                                                               | 138                                                                                | 230                                                                                 | 317                                                                                 | 259                                                                                 | 272                                                                                 | 231                                                                                 |
| Arrive On Green              | 0.05                                                                              | 0.23                                                                              | 0.23                                                                              | 0.14                                                                              | 0.32                                                                              | 0.32                                                                              | 0.20                                                                               | 0.20                                                                                | 0.20                                                                                | 0.15                                                                                | 0.15                                                                                | 0.15                                                                                |
| Sat Flow, veh/h              | 1781                                                                              | 3554                                                                              | 1585                                                                              | 1781                                                                              | 3125                                                                              | 442                                                                               | 688                                                                                | 1147                                                                                | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Grp Volume(v), veh/h         | 57                                                                                | 599                                                                               | 90                                                                                | 226                                                                               | 328                                                                               | 332                                                                               | 256                                                                                | 0                                                                                   | 266                                                                                 | 85                                                                                  | 190                                                                                 | 78                                                                                  |
| Grp Sat Flow(s),veh/h/ln     | 1781                                                                              | 1777                                                                              | 1585                                                                              | 1781                                                                              | 1777                                                                              | 1791                                                                              | 1836                                                                               | 0                                                                                   | 1585                                                                                | 1781                                                                                | 1870                                                                                | 1585                                                                                |
| Q Serve(g_s), s              | 2.4                                                                               | 11.8                                                                              | 3.5                                                                               | 9.5                                                                               | 11.6                                                                              | 11.7                                                                              | 9.8                                                                                | 0.0                                                                                 | 12.2                                                                                | 3.2                                                                                 | 7.3                                                                                 | 3.3                                                                                 |
| Cycle Q Clear(g_c), s        | 2.4                                                                               | 11.8                                                                              | 3.5                                                                               | 9.5                                                                               | 11.6                                                                              | 11.7                                                                              | 9.8                                                                                | 0.0                                                                                 | 12.2                                                                                | 3.2                                                                                 | 7.3                                                                                 | 3.3                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 0.25                                                                              | 0.37                                                                               |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Lane Grp Cap(c), veh/h       | 82                                                                                | 823                                                                               | 367                                                                               | 242                                                                               | 571                                                                               | 576                                                                               | 368                                                                                | 0                                                                                   | 317                                                                                 | 259                                                                                 | 272                                                                                 | 231                                                                                 |
| V/C Ratio(X)                 | 0.69                                                                              | 0.73                                                                              | 0.25                                                                              | 0.93                                                                              | 0.57                                                                              | 0.58                                                                              | 0.70                                                                               | 0.00                                                                                | 0.84                                                                                | 0.33                                                                                | 0.70                                                                                | 0.34                                                                                |
| Avail Cap(c_a), veh/h        | 188                                                                               | 1596                                                                              | 712                                                                               | 242                                                                               | 852                                                                               | 858                                                                               | 436                                                                                | 0                                                                                   | 377                                                                                 | 964                                                                                 | 1013                                                                                | 858                                                                                 |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 35.6                                                                              | 26.9                                                                              | 23.7                                                                              | 32.4                                                                              | 21.4                                                                              | 21.4                                                                              | 28.1                                                                               | 0.0                                                                                 | 29.1                                                                                | 29.0                                                                                | 30.8                                                                                | 29.1                                                                                |
| Incr Delay (d2), s/veh       | 10.0                                                                              | 1.3                                                                               | 0.3                                                                               | 39.8                                                                              | 0.9                                                                               | 0.9                                                                               | 3.8                                                                                | 0.0                                                                                 | 13.3                                                                                | 0.7                                                                                 | 3.2                                                                                 | 0.9                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 1.2                                                                               | 4.6                                                                               | 1.2                                                                               | 6.4                                                                               | 4.4                                                                               | 4.4                                                                               | 4.6                                                                                | 0.0                                                                                 | 5.7                                                                                 | 1.4                                                                                 | 3.5                                                                                 | 1.3                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 45.6                                                                              | 28.1                                                                              | 24.0                                                                              | 72.2                                                                              | 22.3                                                                              | 22.3                                                                              | 32.0                                                                               | 0.0                                                                                 | 42.4                                                                                | 29.8                                                                                | 34.0                                                                                | 29.9                                                                                |
| LnGrp LOS                    | D                                                                                 | C                                                                                 | C                                                                                 | E                                                                                 | C                                                                                 | C                                                                                 | C                                                                                  |                                                                                     | D                                                                                   | C                                                                                   | C                                                                                   | C                                                                                   |
| Approach Vol, veh/h          | 746                                                                               |                                                                                   |                                                                                   | 886                                                                               |                                                                                   |                                                                                   | 522                                                                                |                                                                                     |                                                                                     | 353                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 29.0                                                                              |                                                                                   |                                                                                   | 35.0                                                                              |                                                                                   |                                                                                   | 37.3                                                                               |                                                                                     |                                                                                     | 32.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | C                                                                                 |                                                                                   |                                                                                   | D                                                                                 |                                                                                   |                                                                                   | D                                                                                  |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 1                                                                                 | 2                                                                                 |                                                                                   | 4                                                                                 | 5                                                                                 | 6                                                                                 |                                                                                    | 8                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 15.0                                                                              | 24.0                                                                              |                                                                                   | 16.4                                                                              | 8.2                                                                               | 30.8                                                                              |                                                                                    | 20.3                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.7                                                                               | 6.5                                                                               |                                                                                   | 5.4                                                                               | 4.7                                                                               | 6.5                                                                               |                                                                                    | 5.1                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 10.3                                                                              | 34.0                                                                              |                                                                                   | 41.0                                                                              | 8.0                                                                               | 36.3                                                                              |                                                                                    | 18.0                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 11.5                                                                              | 13.8                                                                              |                                                                                   | 9.3                                                                               | 4.4                                                                               | 13.7                                                                              |                                                                                    | 14.2                                                                                |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 0.0                                                                               | 3.7                                                                               |                                                                                   | 1.7                                                                               | 0.0                                                                               | 3.5                                                                               |                                                                                    | 1.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh |                                                                                   |                                                                                   |                                                                                   | 33.3                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  |                                                                                   |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 5.8                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 100                                                                               | 711                                                                               | 7    | 2                                                                                 | 754                                                                               | 35   | 29   | 2                                                                                 | 8    | 29   | 0                                                                                   | 48   |
| Future Vol, veh/h        | 100                                                                               | 711                                                                               | 7    | 2                                                                                 | 754                                                                               | 35   | 29   | 2                                                                                 | 8    | 29   | 0                                                                                   | 48   |
| 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           | 220                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 87                                                                                | 87                                                                                | 87   | 87                                                                                | 87                                                                                | 87   | 87   | 87                                                                                | 87   | 87   | 87                                                                                  | 87   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 115                                                                               | 817                                                                               | 8    | 2                                                                                 | 867                                                                               | 40   | 33   | 2                                                                                 | 9    | 33   | 0                                                                                   | 55   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |      |      | Minor2 |      |      |
|----------------------|--------|---|---|--------|---|---|--------|------|------|--------|------|------|
| Conflicting Flow All | 907    | 0 | 0 | 825    | 0 | 0 | 1489   | 1963 | 413  | 1531   | 1947 | 453  |
| Stage 1              | -      | - | - | -      | - | - | 1051   | 1051 | -    | 891    | 891  | -    |
| Stage 2              | -      | - | - | -      | - | - | 438    | 911  | -    | 640    | 1055 | -    |
| Critical Hdwy        | 4.14   | - | - | 4.14   | - | - | 7.54   | 6.54 | 6.94 | 7.54   | 6.54 | 6.94 |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.54   | 5.54 | -    | 6.54   | 5.54 | -    |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.54   | 5.54 | -    | 6.54   | 5.54 | -    |
| Follow-up Hdwy       | 2.22   | - | - | 2.22   | - | - | 3.52   | 4.02 | 3.32 | 3.52   | 4.02 | 3.32 |
| Pot Cap-1 Maneuver   | 746    | - | - | 801    | - | - | 86     | 62   | 588  | 80     | 64   | 554  |
| Stage 1              | -      | - | - | -      | - | - | 242    | 302  | -    | 303    | 359  | -    |
| Stage 2              | -      | - | - | -      | - | - | 567    | 351  | -    | 430    | 301  | -    |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -    | -    | -      | -    | -    |
| Mov Cap-1 Maneuver   | 746    | - | - | 801    | - | - | 65     | 53   | 588  | 64     | 54   | 554  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 65     | 53   | -    | 64     | 54   | -    |
| Stage 1              | -      | - | - | -      | - | - | 205    | 255  | -    | 303    | 358  | -    |
| Stage 2              | -      | - | - | -      | - | - | 509    | 350  | -    | 355    | 254  | -    |

| Approach          | EB   | WB   | NB    | SB    |
|-------------------|------|------|-------|-------|
| HCM Ctrl Dly, s/v | 1.31 | 0.02 | 99.44 | 64.82 |
| HCM LOS           |      |      | F     | F     |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 79    | 746   | -   | -   | 801   | -   | -   | 142   |
| HCM Lane V/C Ratio    | 0.57  | 0.154 | -   | -   | 0.003 | -   | -   | 0.622 |
| HCM Ctrl Dly (s/v)    | 99.4  | 10.7  | -   | -   | 9.5   | -   | -   | 64.8  |
| HCM Lane LOS          | F     | B     | -   | -   | A     | -   | -   | F     |
| HCM 95th %tile Q(veh) | 2.5   | 0.5   | -   | -   | 0     | -   | -   | 3.3   |