



# Garden Street

## Engineering & Traffic Survey (E&TS) Summary

|  |  |
|--|--|
| <b>From / To</b>                               | East Micheltorena Street to East Junipero Street                     |
| <b>FAU Classification</b>                      | Collector  |
| <b>Width</b>                                   | 36 Feet  |
| <b>Length</b>                                  | 4,680 Feet   |
| <b>Striping, Parking and Land Use</b>          | Single yellow dashed center line, parking on both sides. Residential |
| <b>Existing Posted Speed Limit</b>             | 30 miles per hour (mph)  |
| <b>85th Percentile Speed</b>                   | 32 mph   |
| <b>Pace</b>                                    | 25 to 35 mph   |
| <b>Average Daily Traffic</b>                   | 7,219  |
| <b>Engineer's Determination of Speed Limit</b> | <u>30 mph</u>  |
| <b>Justification</b>                           | 85 <sup>th</sup> percentile speed                                    |
| <b>Speed Survey Expiry Date</b>                | 10/16/2022   |
| <b>Date Prepared</b>                           | 10/16/2015   |

City of Santa Barbara  
Behdad Gharagozli, P.E.  
Project Engineer II  
Registered Civil Engineer Number C 82051



GRADIENT  
ROADSIDE DEVELOPMENT  
REMARKS:

RESIDENTIAL

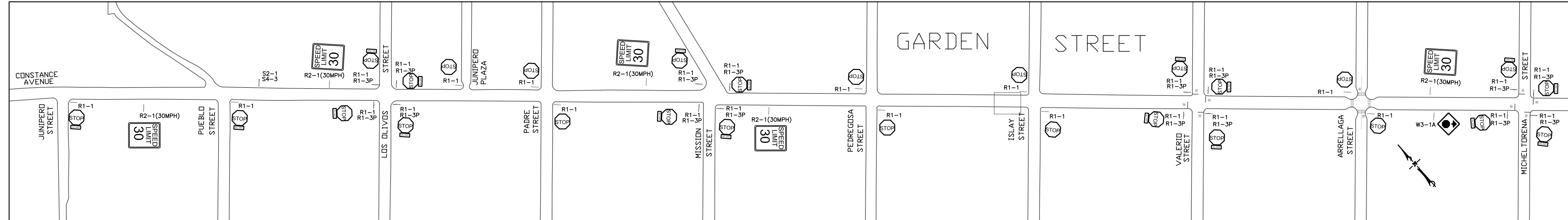
PARKS

CITY OF SANTA BARBARA

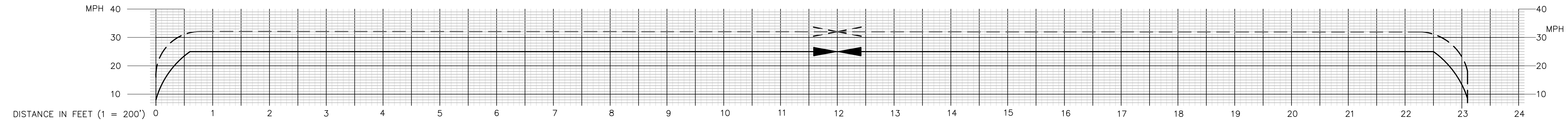


SPEED ZONE SURVEY  
**GARDEN STREET**

FROM \_\_\_\_\_ East Micheltorena Street  
TO \_\_\_\_\_ East Junipero Street  
SCALE: \_\_\_\_\_ SCALE - 1" = 200'  
DATE: \_\_\_\_\_ October 1, 2015  
PREPARED BY: \_\_\_\_\_ J.Rousseau



|                            |  |
|----------------------------|--|
| ROADWAY WIDTH              | 36 FEET                                |
| AVERAGE DAILY TRAFFIC      | 1,219                                  |
| NO. OF STRIPED LANES       | TWO LANES                              |
| TYPE OF DIVISION STRIPE    | SINGLE YELLOW DASHED CENTER LINE       |
| OBSERVED SPEED CRITICAL    | 32MPH - OBSERVED 85th PERCENTILE SPEED |
| OBSERVED SPEED 10 mph PACE | 25 to 35 MPH - OBSERVED 10mph PACE     |
| EXISTING SIGNED ZONE       | 30 MPH - EXISTING SIGNED ZONE          |
| PROPOSED SPEED LIMIT       | 30 MPH                                 |



LEGEND

- ROAD SIGNS
- REGULATORY & WARNING (CODE NO.)
- TRAFFIC SIGNALS
- SENIOR CENTERS
- SCHOOLS
- CHURCHES
- STUDY LOCATION

CRITICAL SPEED - 85%

LOWER LIMIT OF 10mph PACE

|                                 |                |
|---------------------------------|----------------|
| SEGMENT COLLISION RATE          | 2.57 acc/MVM   |
| 2009 DISTRICT 5 URBAN 2 and 3LN | (1.59 acc/MVM) |
| 2009 STATEWIDE 3 yr 2 and 3LN   | (1.42 acc/MVM) |

## VEHICLE SPEED SURVEY SHEET

Location: 1800 Garden Street Date: October 1, 2015  
 Weather: Clear/Dry Posted Speed: 30 Recorded By: BG  
 Start Time: 9:45 AM End Time: 10:45 AM Checked By: JR

| MPH | Number of Vehicles |   |   |   |   |   |   |   |   |    |   |   |   |   |    | Total | Cumulative Total |  |  |  |  |    |  |  |  |  |    |  |  |    |     |    |
|-----|--------------------|---|---|---|---|---|---|---|---|----|---|---|---|---|----|-------|------------------|--|--|--|--|----|--|--|--|--|----|--|--|----|-----|----|
|     |                    |   |   |   | 5 |   |   |   |   | 10 |   |   |   |   | 15 |       |                  |  |  |  |  | 20 |  |  |  |  | 25 |  |  |    |     | 30 |
| 59  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 58  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 57  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 56  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 55  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 54  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 53  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 52  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 51  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 50  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 49  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 48  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 47  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 46  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 45  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 44  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 43  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 42  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 41  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 40  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 39  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 38  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 37  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  |    | 0   |    |
| 36  | X                  | X | X |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 3  | 100 |    |
| 35  | X                  | X |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 2  | 97  |    |
| 34  | X                  | X | X | X |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 4  | 95  |    |
| 33  | X                  | X |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 2  | 91  |    |
| 32  | X                  | X | X | X | X | X | X | X | X | X  | X | X | X |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 12 | 89  |    |
| 31  | X                  | X | X | X | X | X | X | X | X | X  | X | X | X |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 10 | 77  |    |
| 30  | X                  | X | X | X | X | X | X | X | X | X  | X | X | X | X | X  | X     |                  |  |  |  |  |    |  |  |  |  |    |  |  | 15 | 67  |    |
| 29  | X                  | X | X | X | X | X | X | X | X | X  | X | X | X | X | X  | X     | X                |  |  |  |  |    |  |  |  |  |    |  |  | 17 | 52  |    |
| 28  | X                  | X | X | X | X | X | X | X | X | X  |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 9  | 35  |    |
| 27  | X                  | X | X | X | X | X | X | X | X |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 9  | 26  |    |
| 26  | X                  | X | X | X | X | X | X | X |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 8  | 17  |    |
| 25  | X                  | X | X | X | X | X |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 6  | 9   |    |
| 24  | X                  | X |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 2  | 3   |    |
| 23  | X                  |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 1  | 1   |    |
| 22  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 21  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 20  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 19  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 18  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 17  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 16  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |
| 15  |                    |   |   |   |   |   |   |   |   |    |   |   |   |   |    |       |                  |  |  |  |  |    |  |  |  |  |    |  |  | 0  |     |    |

**85th Percentile Calculation**

Step 1: Number of Free Flowing Vehicles: 100  
 Step 2: Determine 85th percentile vehicle: Total number of cars (Step 1) times 0.85: 85  
 Step 3: # to count up (step 2 rounded to nearest whole number if decimal): 85

**85th Percentile Speed** 32 mph      **Average Speed** 29.4 mph      **10 MPH Pace Speed** 25 to 35 mph

## Garden Street

Micheltorena Street to Junipero Street

2012-2013

|                                   |             |         |
|-----------------------------------|-------------|---------|
| Segment length in feet            | 4,680       |         |
| Number of collisions =            | 12          |         |
| AADT                              | 7,219       |         |
| Time period in years =            | 2           |         |
| <b>Segment Collision Rate =</b>   | <b>2.57</b> | ACC/MVM |
| 2009 District 5 Urban 2 and 3LN = | 1.59        | ACC/MVM |
| 2009 Statewide 3 yr, 2 and 3 LN = | 1.42        | ACC/MVM |

| <u>CASE ID</u> | <u>STREET 1</u> | <u>STREET 2</u> | <u>Date</u> | <u>Distance From Intersection</u> | <u>Direction From Intersection</u> |
|----------------|-----------------|-----------------|-------------|-----------------------------------|------------------------------------|
| 5544385        | GARDEN ST       | PADRE ST        | 3/21/2012   | 0                                 | Not stated                         |
| 5669188        | GARDEN ST       | PEDREGOSA ST    | 6/9/2012    | 0                                 | Not stated                         |
| 5811637        | GARDEN ST       | LOS OLIVOS ST   | 10/17/2012  | 0                                 | Not stated                         |
| 5862622        | GARDEN ST       | MICHELTORENA ST | 11/21/2012  | 0                                 | Not stated                         |
| 5982722        | GARDEN ST       | MISSION ST      | 2/1/2013    | 69                                | South                              |
| 6059426        | GARDEN ST       | VALERIO ST      | 4/12/2013   | 0                                 | Not stated                         |
| 6044694        | GARDEN ST       | PEDREGOSA ST    | 4/18/2013   | 0                                 | Not stated                         |
| 6203732        | MICHELTORENA ST | GARDEN ST       | 9/3/2013    | 5                                 | East                               |
| 6223248        | GARDEN ST       | MICHELTORENA ST | 9/23/2013   | 0                                 | Not stated                         |
| 6239189        | GARDEN ST       | MICHELTORENA ST | 10/8/2013   | 0                                 | Not stated                         |
| 6249613        | GARDEN ST       | PEDREGOSA ST    | 10/9/2013   | 0                                 | Not stated                         |
| 6279804        | GARDEN ST       | PEDREGOSA ST    | 11/8/2013   | 0                                 | Not stated                         |

# Average Daily Traffic Volumes Quality Traffic Data, LLC

|                 |                           |                  |                           |
|-----------------|---------------------------|------------------|---------------------------|
| QTD PROJ/LOC #: | 2015140 - 009             | GPS COORDINATES: | 0                         |
| ON STREET:      | Garden Street             | START DATE:      | Wednesday, April 08, 2015 |
| CROSS STREETS:  | North of Arrellaga Street | VICINITY:        | Santa Barbara, CA         |

| AM COUNTS      |             |             |    |             | PM COUNTS      |             |             |    |             |
|----------------|-------------|-------------|----|-------------|----------------|-------------|-------------|----|-------------|
|                | NB          | SB          | EB | WB          |                | NB          | SB          | EB | WB          |
| 00:00          | 13          | 41          |    |             | 12:00          | 40          | 47          |    |             |
| 00:15          | 12          | 13          |    |             | 12:15          | 43          | 45          |    |             |
| 00:30          | 3           | 11          |    |             | 12:30          | 48          | 50          |    |             |
| 00:45          | 7           | 35          | 7  | 72          | 12:45          | 62          | 193         | 44 | 186         |
|                |             |             |    | 107         |                |             |             |    | 379         |
| 01:00          | 14          | 16          |    |             | 13:00          | 41          | 49          |    |             |
| 01:15          | 9           | 11          |    |             | 13:15          | 57          | 52          |    |             |
| 01:30          | 15          | 12          |    |             | 13:30          | 74          | 53          |    |             |
| 01:45          | 9           | 47          | 10 | 49          | 13:45          | 66          | 238         | 51 | 205         |
|                |             |             |    | 96          |                |             |             |    | 443         |
| 02:00          | 4           | 14          |    |             | 14:00          | 60          | 60          |    |             |
| 02:15          | 0           | 9           |    |             | 14:15          | 56          | 66          |    |             |
| 02:30          | 5           | 14          |    |             | 14:30          | 81          | 62          |    |             |
| 02:45          | 10          | 19          | 8  | 45          | 14:45          | 57          | 254         | 57 | 245         |
|                |             |             |    | 64          |                |             |             |    | 499         |
| 03:00          | 7           | 4           |    |             | 15:00          | 60          | 64          |    |             |
| 03:15          | 5           | 11          |    |             | 15:15          | 53          | 68          |    |             |
| 03:30          | 2           | 5           |    |             | 15:30          | 86          | 50          |    |             |
| 03:45          | 7           | 21          | 10 | 30          | 15:45          | 89          | 288         | 72 | 254         |
|                |             |             |    | 51          |                |             |             |    | 542         |
| 04:00          | 3           | 9           |    |             | 16:00          | 89          | 73          |    |             |
| 04:15          | 9           | 10          |    |             | 16:15          | 69          | 55          |    |             |
| 04:30          | 7           | 15          |    |             | 16:30          | 93          | 45          |    |             |
| 04:45          | 5           | 24          | 9  | 43          | 16:45          | 80          | 331         | 32 | 205         |
|                |             |             |    | 67          |                |             |             |    | 536         |
| 05:00          | 7           | 19          |    |             | 17:00          | 77          | 69          |    |             |
| 05:15          | 10          | 17          |    |             | 17:15          | 89          | 44          |    |             |
| 05:30          | 13          | 25          |    |             | 17:30          | 100         | 61          |    |             |
| 05:45          | 9           | 39          | 28 | 89          | 17:45          | 86          | 352         | 53 | 227         |
|                |             |             |    | 128         |                |             |             |    | 579         |
| 06:00          | 13          | 32          |    |             | 18:00          | 73          | 49          |    |             |
| 06:15          | 13          | 37          |    |             | 18:15          | 64          | 55          |    |             |
| 06:30          | 16          | 31          |    |             | 18:30          | 75          | 36          |    |             |
| 06:45          | 25          | 67          | 41 | 141         | 18:45          | 50          | 262         | 56 | 196         |
|                |             |             |    | 208         |                |             |             |    | 458         |
| 07:00          | 23          | 56          |    |             | 19:00          | 50          | 35          |    |             |
| 07:15          | 35          | 66          |    |             | 19:15          | 37          | 37          |    |             |
| 07:30          | 39          | 94          |    |             | 19:30          | 49          | 35          |    |             |
| 07:45          | 44          | 141         | 68 | 284         | 19:45          | 43          | 179         | 38 | 145         |
|                |             |             |    | 425         |                |             |             |    | 324         |
| 08:00          | 49          | 60          |    |             | 20:00          | 45          | 37          |    |             |
| 08:15          | 46          | 65          |    |             | 20:15          | 37          | 40          |    |             |
| 08:30          | 50          | 49          |    |             | 20:30          | 49          | 26          |    |             |
| 08:45          | 33          | 178         | 53 | 227         | 20:45          | 33          | 164         | 39 | 142         |
|                |             |             |    | 405         |                |             |             |    | 306         |
| 09:00          | 24          | 43          |    |             | 21:00          | 24          | 31          |    |             |
| 09:15          | 28          | 47          |    |             | 21:15          | 19          | 28          |    |             |
| 09:30          | 43          | 45          |    |             | 21:30          | 32          | 28          |    |             |
| 09:45          | 29          | 124         | 38 | 173         | 21:45          | 26          | 101         | 24 | 111         |
|                |             |             |    | 297         |                |             |             |    | 212         |
| 10:00          | 39          | 47          |    |             | 22:00          | 23          | 25          |    |             |
| 10:15          | 40          | 46          |    |             | 22:15          | 20          | 43          |    |             |
| 10:30          | 28          | 40          |    |             | 22:30          | 19          | 26          |    |             |
| 10:45          | 44          | 151         | 41 | 174         | 22:45          | 21          | 83          | 36 | 130         |
|                |             |             |    | 325         |                |             |             |    | 213         |
| 11:00          | 50          | 33          |    |             | 23:00          | 19          | 21          |    |             |
| 11:15          | 47          | 46          |    |             | 23:15          | 22          | 16          |    |             |
| 11:30          | 53          | 47          |    |             | 23:30          | 23          | 25          |    |             |
| 11:45          | 55          | 205         | 53 | 179         | 23:45          | 17          | 81          | 28 | 90          |
|                |             |             |    | 384         |                |             |             |    | 171         |
| <b>TOTALS:</b> | <b>1051</b> | <b>1506</b> |    | <b>2557</b> | <b>TOTALS:</b> | <b>2526</b> | <b>2136</b> |    | <b>4662</b> |

| SPLIT     | 41.1% | 58.9% | 35.4% | SPLIT     | 54.2% | 45.8% | 64.6% |
|-----------|-------|-------|-------|-----------|-------|-------|-------|
| PEAK HOUR | 11:00 | 07:15 | 07:30 | PEAK HOUR | 17:00 | 15:15 | 15:45 |
| PH VOLUME | 205   | 288   | 465   | PH VOLUME | 352   | 263   | 585   |
| PHF       | 0.93  | 0.77  | 0.87  | PHF       | 0.92  | 0.90  | 0.90  |

| DAY'S TOTAL |      |    |    |       |
|-------------|------|----|----|-------|
| NB          | SB   | EB | WB | TOTAL |
| 3577        | 3642 |    |    | 7219  |



## QUALITY TRAFFIC DATA, LLC

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