



District Department of Transportation

## Speed Limit and Safety Nexus Studies for Automated Enforcement Locations in the District of Columbia

### 2700 Block Branch Avenue SE

#### Study Area and Location

| District | PSA | Ward | ANC | Phase    | Description                                    |
|----------|-----|------|-----|----------|--|
| 6        | 606 | 7    | 7B  | Proposed | 2700 Block Branch Avenue Southeast, Northbound |



The *proposed* speed camera will be located in Ward 7 at the 2700 block of Branch Avenue Southeast in the northbound direction. Branch Avenue Southeast runs between Randle Circle Southeast to the north and Southern Avenue Southeast to the south. The posted speed limit is 25 MPH.

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District Department of Transportation

2700 Block Branch Avenue SE

## Field Assessment Summary

Branch Avenue runs in a north-south direction, and is classified as a minor arterial. Branch Avenue has one travel lane in each direction with a left turn lane in the southbound direction at Erie Street. This site has the following characteristics:

- This is a residential area with houses.
- There is one school in the area, Winston Education Campus.
- The Hillcrest Recreation Center is near the site and is a pedestrian activity generator.
- There are several bus stops in the area that generate pedestrian activity.
- There are sidewalks on both sides of the street and crosswalks at Erie Street and Frankford Street.
- There is a traffic signal with pedestrian signals at Erie Street.
- The pavement is in good condition and there is curb and gutter with drainage inlets. There is a slight slope downgrade in the northbound direction.



Looking Northbound

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District Department of Transportation

2700 Block Branch Avenue SE



Looking Southbound

## Speed Data Analysis

|                             |       |
|-----------------------------|-------|
| Posted Speed Limit (MPH)    | 25    |
| Mean Speed (MPH)            | 29    |
| 85th Percentile Speed (MPH) | 39    |
| 10 MPH Pace Speed           | 30-39 |
| ADT                         | 9,428 |

The mean speed is higher than the posted speed limit by 4 MPH, and the 85<sup>th</sup> percentile speed is higher than the posted speed limit by 14 MPH at this location.

## Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 14 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (10 crashes) and Fixed Object (3 crashes). The other collision types had one crash or less each. There were 3 crashes where vehicular speeding was the contributing factor. Furthermore, the site experienced 8 injury-related crashes.

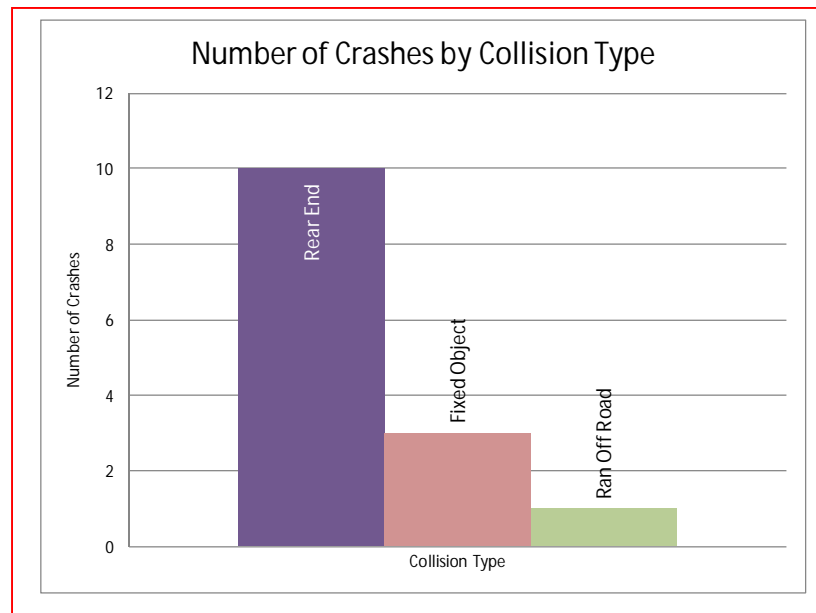
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District Department of Transportation

2700 Block Branch Avenue SE

| Severity  |    |       | Weather |    |       | Surface condition |    |       | Light Condition |    |       |
|-----------|----|-------|---------|----|-------|-------------------|----|-------|-----------------|----|-------|
| Total     | 14 |       |         |    |       |                   |    |       |                 |    |       |
| Fatal     | 0  | 0.0%  | Clear   | 10 | 71.4% | Dry               | 10 | 71.4% | Day             | 10 | 71.4% |
| Injury    | 8  | 57.1% | Rain    | 4  | 28.6% | Wet               | 4  | 28.6% | Night           | 3  | 21.4% |
| Truck     | 1  | 7.1%  | Snow    | 0  | 0.0%  | Snow/Ice          | 0  | 0.0%  |                 |    |       |
| Emergency | 1  | 7.1%  |         |    |       |                   |    |       |                 |    |       |



## Safety Nexus

This site presents the following safety considerations which may establish a nexus between the speed camera and traffic safety:

1. Speed Data – The 85<sup>th</sup> percentile speed is much higher than the posted speed limit at this location.
2. Crash Data – The crash data analysis shows a low number of crashes at this location.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. There is one school in the area, Winston Education Campus.
  - b. The Hillcrest Recreation Center is near the site and is a pedestrian activity generator.
  - c. There are several bus stops in the area that generate pedestrian activity.

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District Department of Transportation

2700 Block Branch Avenue SE

Although the crash data analysis showed a low number of crashes at this location, due to the speed data analysis, the specific site characteristics, and pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

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# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

[www.sammateng.com](http://www.sammateng.com)

## 2700 Block of Branch Ave SE NB Speed

NB

| Start Time | 15   | 20  | 25  | 30   | 35   | 40   | 45  | 50  | 55  | 60 | 65 | 70 | 75 | 999 | Total |
|------------|------|-----|-----|------|------|------|-----|-----|-----|----|----|----|----|-----|-------|
| 11/20/13   | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 01:00      | 0    | 0   | 0   | 1    | 1    | 6    | 3   | 3   | 1   | 1  | 0  | 0  | 0  | 0   | 16    |
| 02:00      | 0    | 1   | 1   | 4    | 5    | 6    | 3   | 5   | 1   | 1  | 0  | 0  | 0  | 0   | 27    |
| 03:00      | 2    | 0   | 1   | 2    | 8    | 19   | 7   | 5   | 2   | 2  | 0  | 1  | 0  | 1   | 50    |
| 04:00      | 2    | 0   | 1   | 7    | 24   | 42   | 21  | 14  | 7   | 5  | 2  | 3  | 0  | 0   | 128   |
| 05:00      | 13   | 1   | 6   | 33   | 137  | 139  | 88  | 45  | 23  | 8  | 2  | 1  | 0  | 0   | 496   |
| 06:00      | 54   | 19  | 51  | 183  | 346  | 230  | 72  | 15  | 1   | 3  | 1  | 0  | 1  | 0   | 976   |
| 07:00      | 551  | 115 | 74  | 48   | 47   | 39   | 4   | 0   | 1   | 0  | 0  | 0  | 0  | 0   | 879   |
| 08:00      | 349  | 95  | 71  | 108  | 106  | 60   | 16  | 7   | 0   | 0  | 0  | 0  | 0  | 0   | 812   |
| 09:00      | 24   | 6   | 40  | 110  | 164  | 126  | 61  | 22  | 9   | 3  | 1  | 0  | 0  | 0   | 566   |
| 10:00      | 6    | 0   | 14  | 79   | 135  | 118  | 42  | 22  | 9   | 1  | 4  | 0  | 1  | 0   | 431   |
| 11:00      | 7    | 3   | 12  | 48   | 135  | 120  | 51  | 14  | 5   | 0  | 1  | 0  | 0  | 0   | 396   |
| 12 PM      | 9    | 0   | 12  | 87   | 170  | 124  | 42  | 15  | 6   | 2  | 0  | 0  | 0  | 0   | 467   |
| 13:00      | 11   | 2   | 22  | 75   | 168  | 123  | 46  | 14  | 4   | 1  | 2  | 0  | 0  | 0   | 468   |
| 14:00      | 8    | 8   | 20  | 48   | 132  | 133  | 62  | 27  | 4   | 0  | 0  | 1  | 0  | 0   | 443   |
| 15:00      | 12   | 0   | 8   | 61   | 140  | 129  | 71  | 17  | 10  | 4  | 0  | 0  | 0  | 0   | 452   |
| 16:00      | 21   | 0   | 10  | 74   | 158  | 112  | 61  | 23  | 8   | 2  | 0  | 0  | 0  | 0   | 469   |
| 17:00      | 26   | 0   | 25  | 159  | 178  | 82   | 25  | 6   | 3   | 0  | 0  | 0  | 0  | 0   | 504   |
| 18:00      | 18   | 4   | 12  | 82   | 186  | 93   | 39  | 17  | 5   | 1  | 0  | 0  | 0  | 0   | 457   |
| 19:00      | 10   | 0   | 9   | 67   | 141  | 76   | 35  | 14  | 3   | 1  | 0  | 0  | 0  | 0   | 356   |
| 20:00      | 6    | 0   | 15  | 63   | 114  | 93   | 36  | 6   | 1   | 1  | 0  | 0  | 0  | 0   | 335   |
| 21:00      | 4    | 1   | 7   | 37   | 92   | 81   | 28  | 10  | 0   | 0  | 0  | 1  | 1  | 1   | 263   |
| 22:00      | 7    | 0   | 6   | 38   | 63   | 53   | 31  | 13  | 3   | 2  | 2  | 0  | 1  | 0   | 219   |
| 23:00      | 1    | 0   | 1   | 10   | 42   | 35   | 30  | 5   | 5   | 1  | 1  | 0  | 0  | 0   | 131   |
| Total      | 1141 | 255 | 418 | 1424 | 2692 | 2039 | 874 | 319 | 111 | 39 | 16 | 7  | 4  | 2   | 9341  |

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

[www.sammateng.com](http://www.sammateng.com)

## 2700 Block of Branch Ave SE NB Speed

NB

| Start Time  | 15   | 20  | 25  | 30   | 35   | 40   | 45  | 50  | 55  | 60 | 65 | 70 | 75 | 999 | Total |
|-------------|------|-----|-----|------|------|------|-----|-----|-----|----|----|----|----|-----|-------|
| 11/21/13    | 1    | 0   | 3   | 8    | 16   | 16   | 11  | 7   | 2   | 0  | 2  | 0  | 0  | 0   | 67    |
| 01:00       | 0    | 0   | 1   | 4    | 5    | 2    | 3   | 3   | 2   | 0  | 0  | 0  | 0  | 0   | 20    |
| 02:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 03:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 04:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 05:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 06:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 07:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 08:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 09:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 10:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 11:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 12 PM       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 13:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 14:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 15:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 16:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 17:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 18:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 19:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 20:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 21:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 22:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| 23:00       | *    | *   | *   | *    | *    | *    | *   | *   | *   | *  | *  | *  | *  | *   | *     |
| Total       | 1    | 0   | 4   | 12   | 21   | 18   | 14  | 10  | 4   | 0  | 2  | 0  | 0  | 1   | 87    |
| Grand Total | 1142 | 255 | 422 | 1436 | 2713 | 2057 | 888 | 329 | 115 | 39 | 18 | 7  | 4  | 3   | 9428  |

15th Percentile : 10 MPH  
 50th Percentile : 31 MPH  
 85th Percentile : 39 MPH  
 95th Percentile : 45 MPH

Stats  
 Mean Speed(Average) : 29 MPH  
 10 MPH Pace Speed : 30-39 MPH  
 Number in Pace : 4096  
 Percent in Pace : 43.5%  
 Number of Vehicles > 25 MPH : 6739  
 Percent of Vehicles > 25 MPH : 71.5%

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1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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## 2700 Block of Branch Ave SE NB Volume

| Start Time     | Wed 20-Nov-13 |       | Thu 21-Nov-13 |      | Fri 22-Nov-13 |      | Daily Average |       |
|----------------|---------------|-------|---------------|------|---------------|------|---------------|-------|
|                | A.M.          | P.M.  | A.M.          | P.M. | A.M.          | P.M. | A.M.          | P.M.  |
| 12:00          | *             | 112   | 24            | *    | *             | *    | 24            | 112   |
| 12:15          | *             | 111   | 12            | *    | *             | *    | 12            | 111   |
| 12:30          | *             | 127   | 19            | *    | *             | *    | 19            | 127   |
| 12:45          | *             | 117   | 12            | *    | *             | *    | 12            | 117   |
| 01:00          | *             | 102   | 10            | *    | *             | *    | 10            | 102   |
| 01:15          | *             | 142   | 10            | *    | *             | *    | 10            | 142   |
| 01:30          | 8             | 114   | *             | *    | *             | *    | 8             | 114   |
| 01:45          | 8             | 110   | *             | *    | *             | *    | 8             | 110   |
| 02:00          | 5             | 96    | *             | *    | *             | *    | 5             | 96    |
| 02:15          | 6             | 110   | *             | *    | *             | *    | 6             | 110   |
| 02:30          | 8             | 110   | *             | *    | *             | *    | 8             | 110   |
| 02:45          | 8             | 127   | *             | *    | *             | *    | 8             | 127   |
| 03:00          | 8             | 104   | *             | *    | *             | *    | 8             | 104   |
| 03:15          | 10            | 132   | *             | *    | *             | *    | 10            | 132   |
| 03:30          | 12            | 114   | *             | *    | *             | *    | 12            | 114   |
| 03:45          | 20            | 102   | *             | *    | *             | *    | 20            | 102   |
| 04:00          | 17            | 111   | *             | *    | *             | *    | 17            | 111   |
| 04:15          | 25            | 111   | *             | *    | *             | *    | 25            | 111   |
| 04:30          | 43            | 124   | *             | *    | *             | *    | 43            | 124   |
| 04:45          | 43            | 123   | *             | *    | *             | *    | 43            | 123   |
| 05:00          | 65            | 102   | *             | *    | *             | *    | 65            | 102   |
| 05:15          | 111           | 143   | *             | *    | *             | *    | 111           | 143   |
| 05:30          | 143           | 123   | *             | *    | *             | *    | 143           | 123   |
| 05:45          | 177           | 136   | *             | *    | *             | *    | 177           | 136   |
| 06:00          | 216           | 104   | *             | *    | *             | *    | 216           | 104   |
| 06:15          | 243           | 129   | *             | *    | *             | *    | 243           | 129   |
| 06:30          | 279           | 113   | *             | *    | *             | *    | 279           | 113   |
| 06:45          | 238           | 111   | *             | *    | *             | *    | 238           | 111   |
| 07:00          | 242           | 101   | *             | *    | *             | *    | 242           | 101   |
| 07:15          | 221           | 106   | *             | *    | *             | *    | 221           | 106   |
| 07:30          | 203           | 84    | *             | *    | *             | *    | 203           | 84    |
| 07:45          | 213           | 65    | *             | *    | *             | *    | 213           | 65    |
| 08:00          | 221           | 79    | *             | *    | *             | *    | 221           | 79    |
| 08:15          | 209           | 92    | *             | *    | *             | *    | 209           | 92    |
| 08:30          | 201           | 84    | *             | *    | *             | *    | 201           | 84    |
| 08:45          | 181           | 80    | *             | *    | *             | *    | 181           | 80    |
| 09:00          | 146           | 85    | *             | *    | *             | *    | 146           | 85    |
| 09:15          | 169           | 72    | *             | *    | *             | *    | 169           | 72    |
| 09:30          | 130           | 57    | *             | *    | *             | *    | 130           | 57    |
| 09:45          | 121           | 49    | *             | *    | *             | *    | 121           | 49    |
| 10:00          | 112           | 64    | *             | *    | *             | *    | 112           | 64    |
| 10:15          | 105           | 57    | *             | *    | *             | *    | 105           | 57    |
| 10:30          | 85            | 51    | *             | *    | *             | *    | 85            | 51    |
| 10:45          | 129           | 47    | *             | *    | *             | *    | 129           | 47    |
| 11:00          | 102           | 36    | *             | *    | *             | *    | 102           | 36    |
| 11:15          | 101           | 41    | *             | *    | *             | *    | 101           | 41    |
| 11:30          | 94            | 30    | *             | *    | *             | *    | 94            | 30    |
| 11:45          | 99            | 24    | *             | *    | *             | *    | 99            | 24    |
| Total          | 4777          | 4564  | 87            | 0    | 0             | 0    | 4864          | 4564  |
| Combined Total | 9341          |       | 87            |      | 0             |      | 9428          |       |
| Peak           | 06:15         | 05:15 | 12:00         |      |               |      | 06:15         | 05:15 |
| Vol.           | 1002          | 506   | 67            |      |               |      | 1002          | 506   |
| P.H.F.         | 0.898         | 0.885 | 0.698         |      |               |      | 0.898         | 0.885 |
| ADT            | ADT 9,428     |       | AADT 9,428    |      |               |      |               |       |



DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** BRANCH AVE,SE From FRANKFORD ST,SE TO DENVER ST,SE

**Time Period Covered:** From 01/01/2010 To 12/31/2012

**Prepared By:** Rahul Jain

**Prepared Date:** 9/16/2013

|  |    | <b>Collision Type</b> | <b>#ACC</b> | <b>%</b> | <b>Collision Type</b> | <b>#ACC</b> | <b>%</b> |
|--|----|-----------------------|-------------|----------|-----------------------|-------------|----------|
| Total Number of Accident:              | 14 | Right Angle:          | 0           | 0.0%     | Fixed Object:         | 3           | 21.4%    |
| Total Number of Fatalities:            | 0  | Left Turn:            | 0           | 0.0%     | Ran Off Road:         | 1           | 7.1%     |
| Total Number of Injuries:              | 11 | Right Turn:           | 0           | 0.0%     | Ped. Involved:        | 0           | 0.0%     |
| Total Number of Disabling Injuries:    | 2  | Rear End:             | 10          | 71.4%    | Backing:              | 0           | 0.0%     |
| Total Number of NonDisabling Injuries: | 2  | Side Swiped:          | 0           | 0.0%     | Non Collision:        | 0           | 0.0%     |
| Total Number of Pedestrians Involved:  | 0  | Head On:              | 0           | 0.0%     | Under/Over Ride:      | 0           | 0.0%     |
| Total Number of Bicycles Involved:     | 0  | Parked:               | 0           | 0.0%     | Unspecified:          | 0           | 0.0%     |
| Total Number of Motorcycles Involved:  | 1  |                       |             |          |                       |             |          |

| <b>Time of Day</b> | <b>#ACC</b> | <b>%</b> | <b>Day o fweek</b> | <b>#ACC</b> | <b>%</b> |
|--------------------|-------------|----------|--------------------|-------------|----------|
| 07:30 ~ 09:30:     | 4           | 28.6%    | Sunday:            | 2           | 14.3%    |
| 09:30 ~ 11:30:     | 0           | 0.0%     | Monday:            | 4           | 28.6%    |
| 11:30 ~ 13:30:     | 2           | 14.3%    | Tuesday:           | 2           | 14.3%    |
| 13:30 ~ 16:00:     | 0           | 0.0%     | Wednesday:         | 2           | 14.3%    |
| 16:00 ~18:30:      | 3           | 21.4%    | Thursday:          | 2           | 14.3%    |
| 18:30 ~ 07:30:     | 5           | 35.7%    | Friday:            | 1           | 7.1%     |
| Unspecified:       | 0           | 0.0%     | Saturday:          | 1           | 7.1%     |

| <b>Weather Condition</b> | <b>#ACC</b> | <b>%</b> | <b>Surface Condition</b> | <b>#ACC</b> | <b>%</b> |
|--------------------------|-------------|----------|--------------------------|-------------|----------|
| Clear:                   | 10          | 71.4%    | Dry:                     | 10          | 71.4%    |
| Rain:                    | 4           | 28.6%    | Wet:                     | 4           | 28.6%    |
| Snow:                    | 0           | 0.0%     | Snow/Ice:                | 0           | 0.0%     |
| Sleet/Hail:              | 0           | 0.0%     | Slush:                   | 0           | 0.0%     |
| Fog/Mist:                | 0           | 0.0%     | Water/Sand:              | 0           | 0.0%     |
| Crosswind/Blowing Sand:  | 0           | 0.0%     | Repairing:               | 0           | 0.0%     |
| Unspecified:             | 0           | 0.0%     | Unspecified:             | 0           | 0.0%     |

| <b>Type of Vehicle</b>    | <b>#VEH</b> | <b>%</b> | <b>Accident Severity Type</b> | <b>#ACC</b> | <b>%</b> |
|---------------------------|-------------|----------|-------------------------------|-------------|----------|
| Passenger Car:            | 20          | 71.4%    | Fatal Collision:              | 0           | 0.0%     |
| Bus:                      | 0           | 0.0%     | Injury Collision:             | 8           | 57.1%    |
| Truck:                    | 1           | 3.6%     | PDO Collision:                | 6           | 42.9%    |
| Taxi:                     | 0           | 0.0%     |                               |             |          |
| Minivan:                  | 0           | 0.0%     | <b>Light Condition</b>        | <b>#ACC</b> | <b>%</b> |
| Police/Emergency Vehicle: | 1           | 3.6%     | Daylight:                     | 10          | 71.4%    |
| Motorcycle/Moped:         | 1           | 3.6%     | Dawn/Dusk:                    | 1           | 7.1%     |
| Bicycle:                  | 0           | 0.0%     | Dark(Lighted):                | 3           | 21.4%    |
| Fixed Object:             | 0           | 0.0%     | Dark(Not Lighted):            | 0           | 0.0%     |
| Unspecified:              | 5           | 17.9%    | Dark(Unknown Lighting):       | 0           | 0.0%     |
|                           |             |          | Unspecified:                  | 0           | 0.0%     |

| <b>Contributing Factor</b> | <b>#VEH</b> | <b>%</b> | <b>Pedestrian Actions</b>    | <b>#ACC</b> | <b>%</b> |
|----------------------------|-------------|----------|------------------------------|-------------|----------|
| Driver: Speed:             | 3           | 10.7%    | In Crosswalk with Signal:    | 0           | 0.0%     |
| Driver: Alcohol/Drug:      | 0           | 0.0%     | In Crosswalk against Signal: | 0           | 0.0%     |
| Driver: Electronic Device: | 0           | 0.0%     | In Crosswalk no Signal:      | 0           | 0.0%     |
| Driver: Others:            | 2           | 7.1%     | In Unmarked Crosswalk:       | 0           | 0.0%     |
| Vehicle:                   | 0           | 0.0%     | Not in Crosswalk:            | 0           | 0.0%     |
| Roadway:                   | 0           | 0.0%     | From Between Parked Cars:    | 0           | 0.0%     |
| Unspecified:               | 23          | 82.1%    | Unspecified:                 | 0           | 0.0%     |

9 Records are not approved as of 9/16/2013 10:42:35 AM