



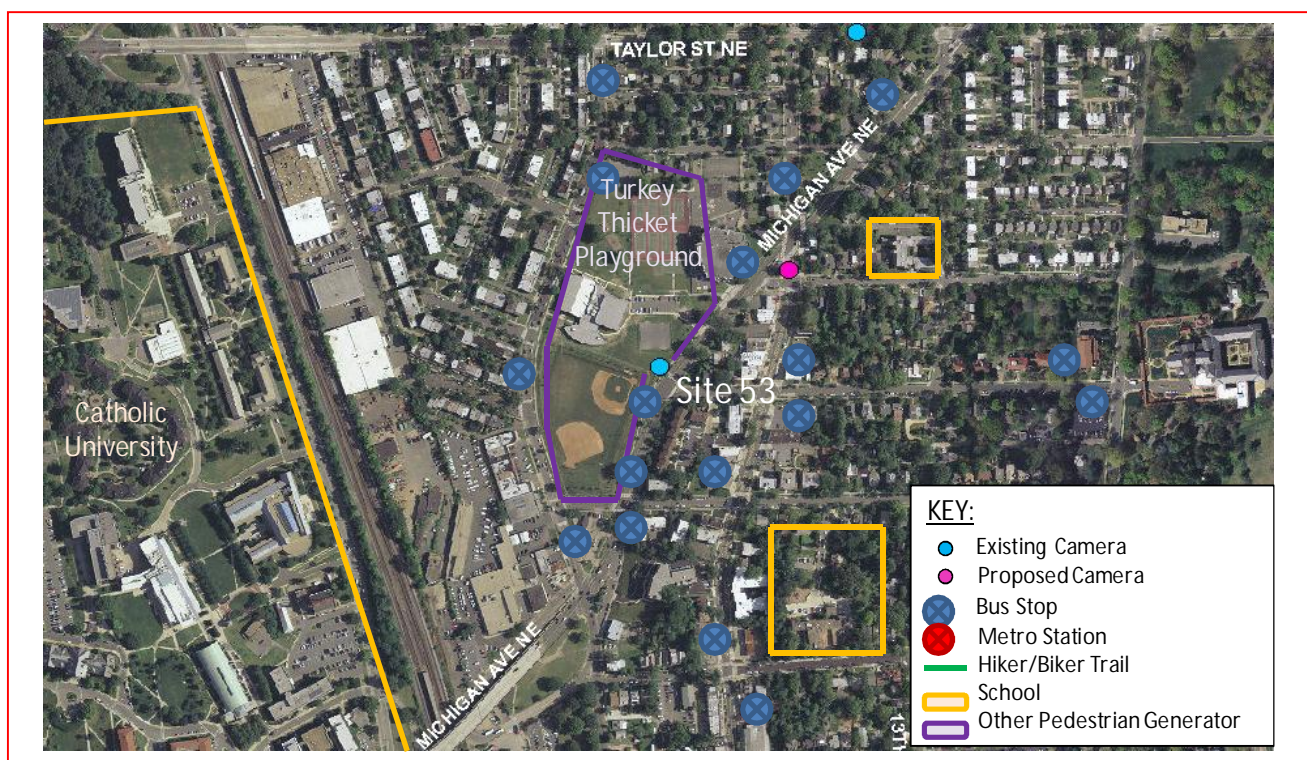
District Department of Transportation

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

1100 Block Michigan Avenue NE

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	504	5	5A	Existing	1100 Block Michigan Avenue Northeast Westbound



This existing speed camera location is located in Ward 5 on block 1100 of Michigan Avenue Northeast in the westbound direction. Michigan Avenue runs between Eastern Avenue Northeast to the east and Warder Street Northwest to the west. The posted speed limit is 25 MPH. This speed camera was installed on February 2010.

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District Department of Transportation

1100 Block Michigan Avenue NE

## Field Assessment Summary

Michigan Avenue is assumed to run in the east-west direction, and is classified as a minor arterial. Michigan Avenue has two travel lanes in each direction. This site has the following characteristics:

- This is a residential and commercial area with driveways.
- There are three schools in the area: Catholic University, Elsie Whitlow Stokes Public Charter School, and Metropolitan Day School. Turkey Thicket Playground is also in the area.
- There is sidewalk on both sides of the street and crosswalks at 12<sup>th</sup> Street and Quincy Street.
- There is a traffic signal and pedestrian signals at 12<sup>th</sup> Street.
- The pavement is in good condition and the drainage type is curb and gutter with drainage inlets.
- There is a bus stop eastbound at the corner of 12<sup>th</sup> Street.



Looking Eastbound

W5 - 78





District Department of Transportation

1100 Block Michigan Avenue NE



Looking Westbound

## Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	20
85th Percentile Speed (MPH)	28
10 MPH Pace Speed (MPH)	20-29
ADT	7,400

The mean speed is lower than the posted speed limit by 5 MPH and the 85<sup>th</sup> percentile speed is higher than the posted speed by 3 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 collision type can be found in the chart on the next page. All types of crashes had three crashes or less each. Furthermore, this site experienced five injury-related crashes.

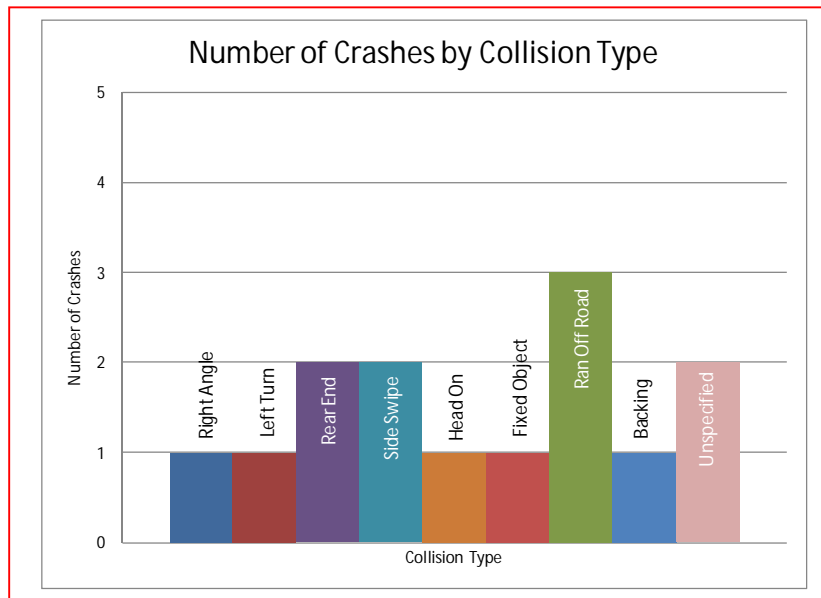
W5 - 79



District Department of Transportation

1100 Block Michigan Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	14										
Fatal	0	0.0%	Clear	10	71.4%	Dry	10	71.4%	Day	11	78.6%
Injury	5	35.7%	Rain	1	7.1%	Wet	3	21.4%	Night	3	21.4%
Bus	1	7.1%	Snow	1	7.1%	Snow/Ice	1	7.1%			
Bicycle	0	0.0%									

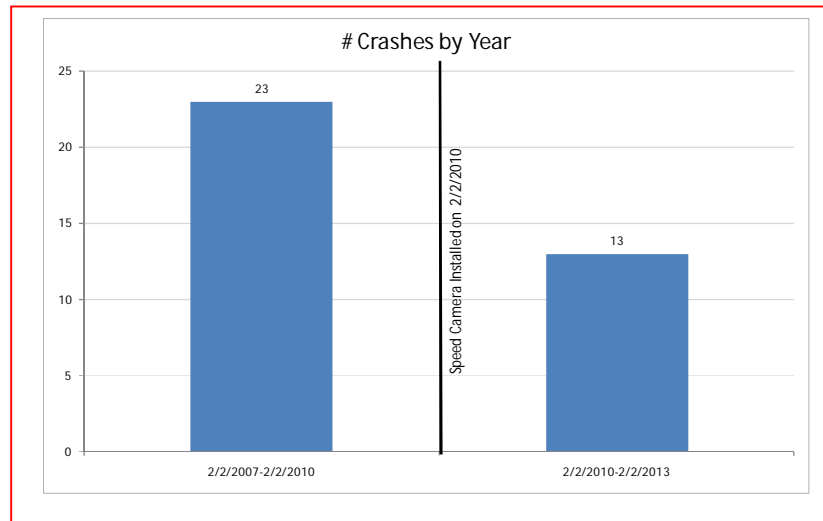


The camera was installed on 2-2-2010. The graph on the next page shows the number of crashes in the three years prior to the speed camera's installation (23 crashes) and three years after the speed camera's installation (13 crashes). There was a decrease in the number of crashes following the installation of the camera.



District Department of Transportation

1100 Block Michigan Avenue NE



## Safety Nexus

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

1. Speed Data – The 85<sup>th</sup> percentile speed is higher than the posted speed limit at this location.
2. Crash Data – There were five injury-related crashes at this location. There was a decrease in the number of crashes following the installation of the camera.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. This site is located in a residential area with driveways.
  - b. There are three schools in the area: Catholic University, Elsie Whitlow Stokes Public Charter School, and Metropolitan Day School.
  - c. Turkey Thicket Playground is in the area which generates pedestrian and bicycle activity.
  - d. There are several bus stops in the area which generate pedestrian activity.

Due to the speed data analysis, the elevated number of injury-related crashes, the specific site characteristics, the proximity of the schools to the site, and other pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 1100 block of Michigan Ave NE WB Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/13/13	30	8	43	49	10	5	0	0	0	0	0	0	0	0	145
01:00	7	2	18	15	7	2	2	0	0	0	0	0	0	0	53
02:00	3	4	12	18	3	1	0	0	0	0	0	0	0	0	41
03:00	1	7	8	2	4	0	0	0	0	0	0	0	0	0	22
04:00	0	3	17	17	3	2	0	0	0	0	0	0	0	0	42
05:00	2	14	75	37	5	1	1	0	0	0	0	0	0	0	135
06:00	9	31	185	77	23	4	1	0	0	0	0	0	0	0	330
07:00	65	58	345	131	24	3	0	0	0	0	0	0	0	0	626
08:00	215	30	242	137	22	1	1	0	0	0	0	0	0	0	648
09:00	413	3	0	2	0	0	0	0	0	0	0	0	0	0	418
10:00	113	52	184	169	46	8	2	0	0	0	0	0	0	0	574
11:00	62	46	193	131	45	8	0	0	1	0	0	0	0	0	486
12 PM	56	33	143	147	51	10	3	1	0	1	0	0	0	0	445
13:00	45	35	153	149	51	8	0	0	0	0	0	0	0	0	441
14:00	38	31	149	110	45	4	1	0	0	0	0	0	0	0	378
15:00	56	29	154	147	27	4	0	0	0	0	0	0	0	0	417
16:00	74	31	107	89	27	4	0	0	0	0	0	0	0	0	332
17:00	71	33	94	85	23	4	0	0	0	0	0	0	0	0	310
18:00	70	36	113	54	16	0	0	0	0	0	0	0	0	0	289
19:00	61	13	91	95	21	4	1	0	0	0	0	0	0	0	286
20:00	23	23	169	87	30	3	0	0	0	0	0	0	0	0	335
21:00	12	25	90	67	32	1	1	0	0	0	0	0	0	0	228
22:00	16	28	76	76	25	2	0	0	0	0	0	0	0	0	223
23:00	11	6	75	72	27	4	1	0	0	0	0	0	0	0	196
Total	1453	581	2736	1963	567	83	14	1	1	1	0	0	0	0	7400
Grand Total	1453	581	2736	1963	567	83	14	1	1	1	0	0	0	0	7400

15th Percentile : 8 MPH  
 50th Percentile : 21 MPH  
 85th Percentile : 28 MPH  
 95th Percentile : 31 MPH

Stats  
 Mean Speed(Average) : 20 MPH  
 10 MPH Pace Speed : 20-29 MPH  
 Number in Pace : 3578  
 Percent in Pace : 48.4%  
 Number of Vehicles > 25 MPH : 2276  
 Percent of Vehicles > 25 MPH : 30.8%

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 1100 block of Michigan Ave NE WB Volume

Start Time	Wed 13-Nov-13		Thu 14-Nov-13		Fri 15-Nov-13		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	42	<b>124</b>	*	*	*	*	42	<b>124</b>
12:15	41	<b>109</b>	*	*	*	*	41	<b>109</b>
12:30	34	<b>104</b>	*	*	*	*	34	<b>104</b>
12:45	28	<b>108</b>	*	*	*	*	28	<b>108</b>
01:00	14	117	*	*	*	*	14	117
01:15	16	113	*	*	*	*	16	113
01:30	10	101	*	*	*	*	10	101
01:45	13	110	*	*	*	*	13	110
02:00	15	82	*	*	*	*	15	82
02:15	9	119	*	*	*	*	9	119
02:30	9	78	*	*	*	*	9	78
02:45	8	99	*	*	*	*	8	99
03:00	6	91	*	*	*	*	6	91
03:15	4	131	*	*	*	*	4	131
03:30	6	105	*	*	*	*	6	105
03:45	6	90	*	*	*	*	6	90
04:00	9	94	*	*	*	*	9	94
04:15	12	74	*	*	*	*	12	74
04:30	12	81	*	*	*	*	12	81
04:45	9	83	*	*	*	*	9	83
05:00	19	79	*	*	*	*	19	79
05:15	24	84	*	*	*	*	24	84
05:30	46	81	*	*	*	*	46	81
05:45	46	66	*	*	*	*	46	66
06:00	56	66	*	*	*	*	56	66
06:15	81	80	*	*	*	*	81	80
06:30	102	78	*	*	*	*	102	78
06:45	91	65	*	*	*	*	91	65
07:00	128	80	*	*	*	*	128	80
07:15	153	66	*	*	*	*	153	66
07:30	<b>187</b>	70	*	*	*	*	<b>187</b>	70
07:45	<b>158</b>	70	*	*	*	*	<b>158</b>	70
08:00	<b>187</b>	103	*	*	*	*	<b>187</b>	103
08:15	<b>216</b>	87	*	*	*	*	<b>216</b>	87
08:30	140	78	*	*	*	*	140	78
08:45	105	67	*	*	*	*	105	67
09:00	104	54	*	*	*	*	104	54
09:15	110	64	*	*	*	*	110	64
09:30	92	63	*	*	*	*	92	63
09:45	112	47	*	*	*	*	112	47
10:00	156	55	*	*	*	*	156	55
10:15	142	58	*	*	*	*	142	58
10:30	142	63	*	*	*	*	142	63
10:45	134	47	*	*	*	*	134	47
11:00	123	57	*	*	*	*	123	57
11:15	132	48	*	*	*	*	132	48
11:30	139	53	*	*	*	*	139	53
11:45	92	38	*	*	*	*	92	38
Total	3520	3880	0	0	0	0	3520	3880
Combined Total	7400		0		0		7400	
Peak	07:30	12:00					07:30	12:00
Vol.	748	445					748	445
P.H.F.	0.866	0.897					0.866	0.897
ADT	ADT 7,400		AADT 7,400					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** MICHIGAN AVE,NW,NE From RANDOLPH ST,NE TO PERRY ST,NE

**Time Period Covered:** From 01/01/2010 To 12/31/2012 **Prepared By:** Rahul Jain

**Prepared Date:** 9/15/2013

Total Number of Accident:	14	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0	Right Angle:	1	7.1%	Fixed Object:	1	7.1%
Total Number of Injuries:	6	Left Turn:	1	7.1%	Ran Off Road:	3	21.4%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	1	Rear End:	2	14.3%	Backing:	1	7.1%
Total Number of Pedestrians Involved:	0	Side Swiped:	2	14.3%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0	Head On:	1	7.1%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	0	0.0%	Unspecified:	2	14.3%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day o fweek</b>	
07:30 ~ 09:30:				3	21.4%	Sunday:	
09:30 ~ 11:30:				2	14.3%	Monday:	
11:30 ~ 13:30:				4	28.6%	Tuesday:	
13:30 ~ 16:00:				1	7.1%	Wednesday:	
16:00 ~18:30:				0	0.0%	Thursday:	
18:30 ~ 07:30:				4	28.6%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				10	71.4%	Dry:	
Rain:				1	7.1%	Wet:	
Snow:				1	7.1%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				2	14.3%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				0	0.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				25	96.2%	Fatal Collision:	
Bus:				1	3.8%	Injury Collision:	
Truck:				0	0.0%	PDO Collision:	
Taxi:				0	0.0%	<b>Light Condition</b>	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				0	0.0%	Dawn/Dusk:	
Motorcycle/Moped:				0	0.0%	Dark(Lighted):	
Bicycle:				0	0.0%	Dark(Not Lighted):	
Fixed Object:				0	0.0%	Dark(Unknown Lighting):	
Unspecified:				0	0.0%	Unspecified:	
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				0	0.0%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				0	0.0%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				6	23.1%	In Unmarked Crosswalk:	
Vehicle:				1	3.8%	Not in Crosswalk:	
Roadway:				2	7.7%	From Between Parked Cars:	
Unspecified:				17	65.4%	Unspecified:	

9 Records are not approved as of 9/15/2013 1:31:50 PM



DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** MICHIGAN AVE,NW,NE From RANDOLPH ST,NE TO PERRY ST,NE

**Time Period Covered:** From 02/01/2007 To 02/01/2010

**Prepared By:** Rahul Jain

**Prepared Date:** 11/18/2013

Total Number of Accident:	23	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0	Right Angle:	6	26.1%	Fixed Object:	3	13.0%
Total Number of Injuries:	16	Left Turn:	1	4.3%	Ran Off Road:	2	8.7%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	0	Rear End:	5	21.7%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	3	13.0%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0	Head On:	1	4.3%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	1	4.3%	Unspecified:	1	4.3%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	
07:30 ~ 09:30:				6	26.1%	Sunday:	
09:30 ~ 11:30:				1	4.3%	Monday:	
11:30 ~ 13:30:				1	4.3%	Tuesday:	
13:30 ~ 16:00:				3	13.0%	Wednesday:	
16:00 ~ 18:30:				4	17.4%	Thursday:	
18:30 ~ 07:30:				8	34.8%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				13	56.5%	Dry:	
Rain:				5	21.7%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				2	8.7%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				3	13.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				42	82.4%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				1	2.0%	PDO Collision:	
Taxi:				2	3.9%	<b>Light Condition</b>	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				1	2.0%	Dawn/Dusk:	
Motorcycle/Moped:				0	0.0%	Dark(Lighted):	
Bicycle:				0	0.0%	Dark(Not Lighted):	
Fixed Object:				0	0.0%	Dark(Unknown Lighting):	
Unspecified:				5	9.8%	Unspecified:	
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				2	3.9%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				0	0.0%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				8	15.7%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				2	3.9%	From Between Parked Cars:	
Unspecified:				39	76.5%	Unspecified:	

20 Records are not approved as of 11/18/2013 4:58:09 PM

## Accident Summary Report (R-8)

**Corridor:** MICHIGAN AVE,NW,NE From RANDOLPH ST,NE TO PERRY ST,NE

**Time Period Covered:** From 02/02/2010 To 02/02/2013

**Prepared By:** Rahul Jain

**Prepared Date:** 11/18/2013

Total Number of Accident:	13		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0		Right Angle:	0	0.0%	Fixed Object:	1	7.7%
Total Number of Injuries:	6		Left Turn:	1	7.7%	Ran Off Road:	3	23.1%
Total Number of Disabling Injuries:	0		Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	1		Rear End:	2	15.4%	Backing:	1	7.7%
Total Number of Pedestrians Involved:	0		Side Swiped:	2	15.4%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0		Head On:	1	7.7%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0		Parked:	0	0.0%	Unspecified:	2	15.4%
<b>Time of Day</b>			<b>Day of week</b>					
	<b>#ACC</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	2	15.4%	Sunday:	1	7.7%			
09:30 ~ 11:30:	2	15.4%	Monday:	2	15.4%			
11:30 ~ 13:30:	4	30.8%	Tuesday:	2	15.4%			
13:30 ~ 16:00:	1	7.7%	Wednesday:	2	15.4%			
16:00 ~ 18:30:	0	0.0%	Thursday:	2	15.4%			
18:30 ~ 07:30:	4	30.8%	Friday:	2	15.4%			
Unspecified:	0	0.0%	Saturday:	2	15.4%			
<b>Weather Condition</b>			<b>Surface Condition</b>					
	<b>#ACC</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>
Clear:	10	76.9%	Dry:	10	76.9%			
Rain:	1	7.7%	Wet:	2	15.4%			
Snow:	1	7.7%	Snow/Ice:	1	7.7%			
Sleet/Hail:	0	0.0%	Slush:	0	0.0%			
Fog/Mist:	1	7.7%	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>Accident Severity Type</b>					
	<b>#VEH</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>
Passenger Car:	23	95.8%	Fatal Collision:	0	0.0%			
Bus:	1	4.2%	Injury Collision:	5	38.5%			
Truck:	0	0.0%	PDO Collision:	8	61.5%			
Taxi:	0	0.0%						
Minivan:	0	0.0%	<b>Light Condition</b>				<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	0	0.0%	Daylight:	10	76.9%			
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%			
Bicycle:	0	0.0%	Dark(Lighted):	3	23.1%			
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%			
Unspecified:	0	0.0%	Dark(Unknown Lighting):	0	0.0%			
			Unspecified:	0	0.0%			
<b>Contributing Factor</b>			<b>Pedestrian Actions</b>					
	<b>#VEH</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>		<b>#ACC</b>	<b>%</b>
Driver: Speed:	0	0.0%	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:	6	25.0%	In Unmarked Crosswalk:	0	0.0%			
Vehicle:	1	4.2%	Not in Crosswalk:	0	0.0%			
Roadway:	2	8.3%	From Between Parked Cars:	0	0.0%			
Unspecified:	15	62.5%	Unspecified:	0	0.0%			

9 Records are not approved as of 11/18/2013 4:56:22 PM