



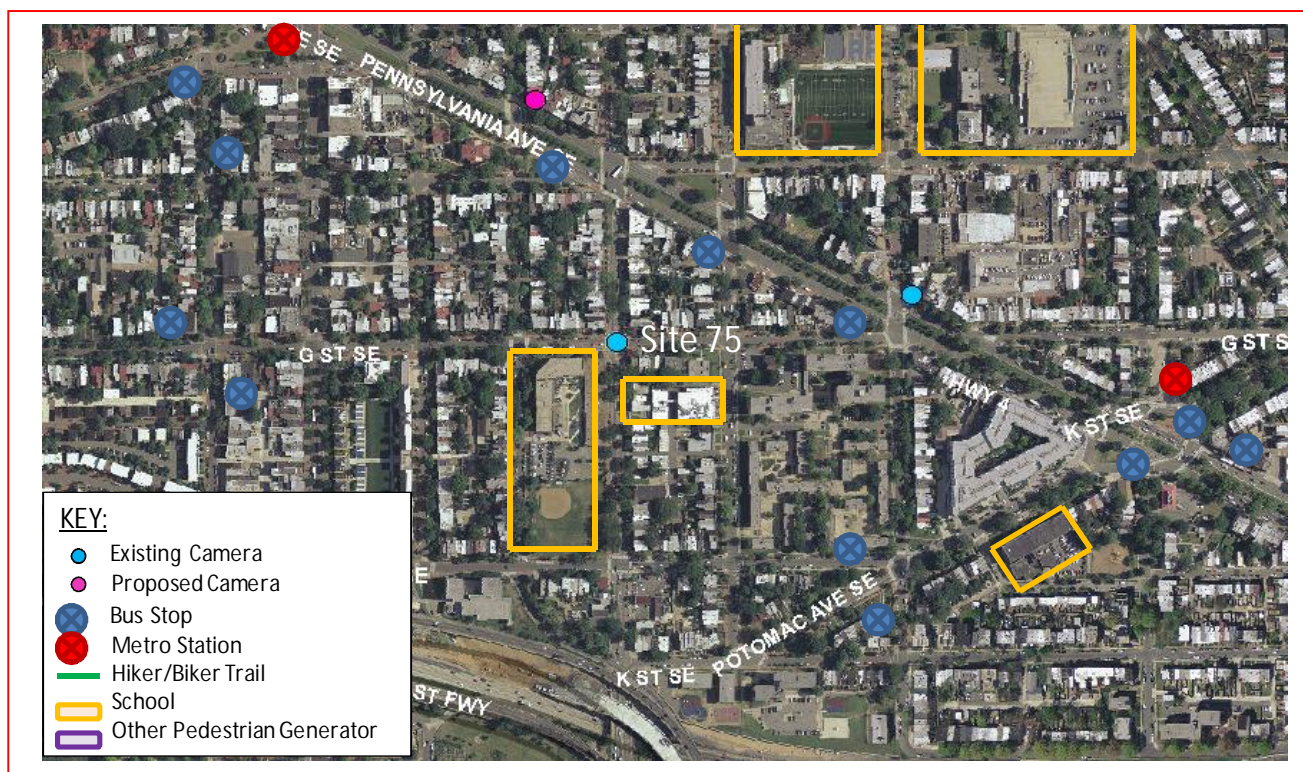
District Department of Transportation

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

### 700 Block 11th Street SE

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	106	6	6B	Existing	700 Block 11 <sup>th</sup> Street Southeast Southbound



The existing speed camera is located in Ward 6 at the 700 block of 11<sup>th</sup> Street Southeast in the southbound direction. 11<sup>th</sup> Street Southeast runs between East Capitol Street to the north and Water Street to the south. The posted speed limit is 25 MPH. The speed camera was installed on November 2010.

W6 - 59





District Department of Transportation

700 Block 11th Street SE

## Field Assessment Summary

11<sup>th</sup> Street Southeast is assumed to run in a north-south direction, and is classified as a minor arterial in this section of roadway. 11<sup>th</sup> Street Southeast has one through lane, bike lane and parking in each direction. There are short left turn bays at the intersections. This site has the following characteristics:

- This site is located in a residential area with houses and apartments in the surrounding area.
- There is sidewalk with curb and gutter and drainage inlets on both sides of the roadway.
- There is a painted median separating northbound and southbound traffic with crosswalks at the intersection. The pavement is in good condition.
- There are four schools in this area: Tyler Elementary School, Cesar Chavez PCS Capitol Hill Campus, International Graduate University, and Chamberlain Elementary.
- There is also the Tiger Woods Learning Center and Watkins Recreation Center in the area.



Looking North



District Department of Transportation

700 Block 11th Street SE



Looking South

## Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	13
85th Percentile Speed (MPH)	18
10 MPH Pace Speed (MPH)	9-18
ADT	5,275

The mean speed is lower than the posted speed limit by 12 MPH and the 85<sup>th</sup> percentile speed is lower than the posted speed by 7 MPH at this location.

## Crash Data Analysis

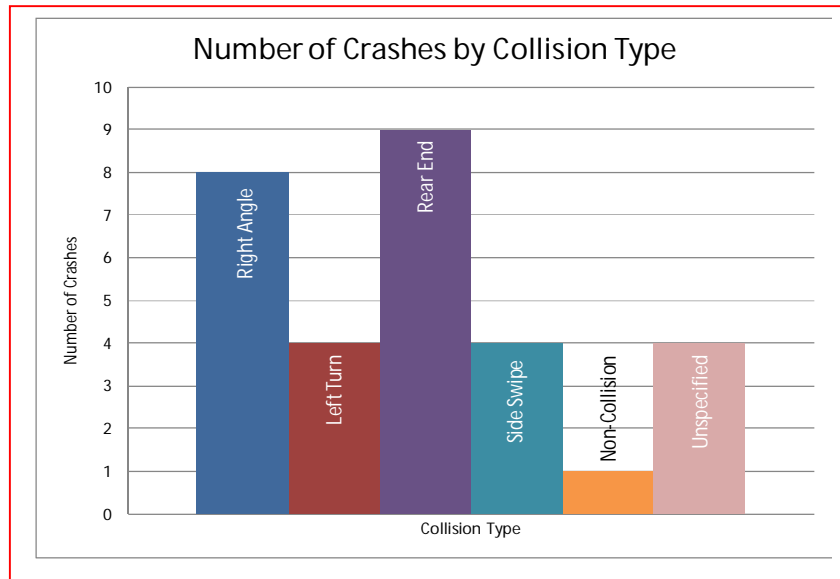
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 30 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (9 crashes) and Right Angle (8 crashes). The other collision types had four crashes or less each. Furthermore, this site experienced a high frequency (11 crashes) of injury-related crashes.



District Department of Transportation

700 Block 11th Street SE

Severity			Weather			Surface condition			Light Condition		
Total	30										
Fatal	0	0.0%	Clear	27	90.0%	Dry	27	90.0%	Day	23	76.7%
Injury	11	36.7%	Rain	0	0.0%	Wet	0	0.0%	Night	5	16.7%
Truck	6	20.0%	Snow	1	3.3%	Snow/Ice	1	3.3%			
Taxi	2	6.7%									

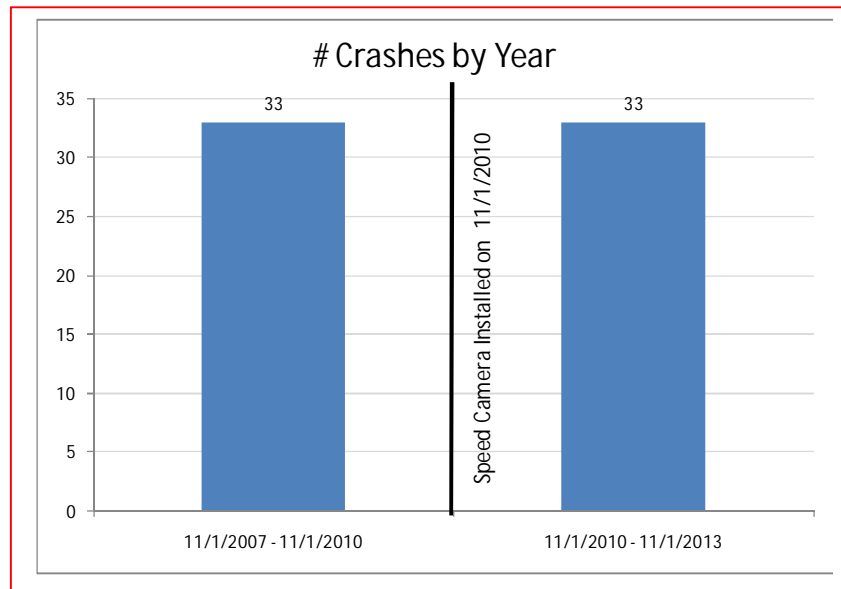


The speed camera was installed on 11-1-2010. The graph on the next page shows the number of crashes in the three years prior to the speed camera's installation (33 crashes) and the three years after the speed camera's installation (33 crashes).



District Department of Transportation

700 Block 11th Street SE



## 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 speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – This location experienced a high frequency (11 crashes) of injury related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. There is a residential area with apartments and houses.
  - b. There are four schools in this area: Tyler Elementary School, Cesar Chavez PCS Capitol Hill Campus, International Graduate University, and Chamberlain Elementary. There is also the Tiger Woods Learning Center and Watkins Recreation Center in the area.
  - c. There is on-street parking and bike lanes on both sides of the roadway.

Although the crash data does not show an improvement in the area since the installation of the speed camera and the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, due to the elevated number of injury-related crashes, the specific site characteristics, the proximity of 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)

## 700 block of 11th St SE SB Speed

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
11/19/13	5	15	4	0	1	0	0	0	0	0	0	0	0	0	25
01:00	5	11	1	0	0	0	0	0	0	0	0	0	0	0	17
02:00	2	4	3	0	0	0	0	0	0	0	0	0	0	0	9
03:00	1	5	1	0	0	0	0	0	0	0	0	0	0	0	7
04:00	5	26	8	0	0	0	0	0	0	0	0	0	0	0	39
05:00	14	77	27	0	0	0	0	0	0	0	0	0	0	0	118
06:00	106	234	31	5	0	0	0	0	0	0	0	0	0	0	376
07:00	465	82	3	0	0	0	0	0	0	0	0	0	0	0	550
08:00	470	43	2	0	0	0	0	0	0	0	0	0	0	0	515
09:00	218	155	7	0	0	0	0	0	0	0	0	0	0	0	380
10:00	93	136	16	0	0	0	0	0	0	0	0	0	0	0	245
11:00	132	137	6	0	0	0	0	0	0	0	0	0	0	0	275
12 PM	113	178	7	0	0	0	0	0	0	0	0	0	0	0	298
13:00	36	198	43	0	0	0	0	0	0	0	0	0	0	0	277
14:00	72	213	26	3	0	0	0	0	0	0	0	0	0	0	314
15:00	151	172	24	1	0	0	0	0	0	0	0	0	0	0	348
16:00	154	176	19	1	0	0	0	0	0	0	0	0	0	0	350
17:00	149	207	20	0	0	0	0	0	0	0	0	0	0	0	376
18:00	99	169	15	0	0	0	0	0	0	0	0	0	0	0	283
19:00	67	110	17	0	1	0	0	0	0	0	0	0	0	0	195
20:00	36	73	21	0	0	0	0	0	0	0	0	0	0	0	130
21:00	28	58	13	0	0	0	0	0	0	0	0	0	0	0	99
22:00	15	5	0	0	1	0	0	0	0	0	0	0	0	0	21
23:00	18	8	2	0	0	0	0	0	0	0	0	0	0	0	28
Total	2454	2492	316	10	3	0	0	0	0	0	0	0	0	0	5275
Grand Total	2454	2492	316	10	3	0	0	0	0	0	0	0	0	0	5275

15th Percentile : 5 MPH  
 50th Percentile : 12 MPH  
 85th Percentile : 18 MPH  
 95th Percentile : 20 MPH

Stats  
 Mean Speed(Average) : 13 MPH  
 10 MPH Pace Speed : 9-18 MPH  
 Number in Pace : 3078  
 Percent in Pace : 58.4%  
 Number of Vehicles > 25 MPH : 31  
 Percent of Vehicles > 25 MPH : 0.6%

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 700 block of 11th St SE SB Volume

Start Time	19-Nov-13		20-Nov-13		21-Nov-13		Daily Average	
	Tue A.M.	P.M.	Wed A.M.	P.M.	Thu A.M.	P.M.	A.M.	P.M.
12:00	8	70	*	*	*	*	8	70
12:15	7	86	*	*	*	*	7	86
12:30	3	69	*	*	*	*	3	69
12:45	7	73	*	*	*	*	7	73
01:00	4	65	*	*	*	*	4	65
01:15	6	85	*	*	*	*	6	85
01:30	4	61	*	*	*	*	4	61
01:45	3	66	*	*	*	*	3	66
02:00	2	93	*	*	*	*	2	93
02:15	3	91	*	*	*	*	3	91
02:30	2	77	*	*	*	*	2	77
02:45	2	53	*	*	*	*	2	53
03:00	1	81	*	*	*	*	1	81
03:15	3	90	*	*	*	*	3	90
03:30	1	97	*	*	*	*	1	97
03:45	2	80	*	*	*	*	2	80
04:00	6	84	*	*	*	*	6	84
04:15	13	84	*	*	*	*	13	84
04:30	6	82	*	*	*	*	6	82
04:45	14	100	*	*	*	*	14	100
05:00	13	117	*	*	*	*	13	117
05:15	22	90	*	*	*	*	22	90
05:30	34	77	*	*	*	*	34	77
05:45	49	92	*	*	*	*	49	92
06:00	55	99	*	*	*	*	55	99
06:15	80	65	*	*	*	*	80	65
06:30	113	62	*	*	*	*	113	62
06:45	128	57	*	*	*	*	128	57
07:00	145	57	*	*	*	*	145	57
07:15	144	61	*	*	*	*	144	61
07:30	131	36	*	*	*	*	131	36
07:45	130	41	*	*	*	*	130	41
08:00	119	33	*	*	*	*	119	33
08:15	117	37	*	*	*	*	117	37
08:30	143	33	*	*	*	*	143	33
08:45	136	27	*	*	*	*	136	27
09:00	124	29	*	*	*	*	124	29
09:15	101	19	*	*	*	*	101	19
09:30	84	21	*	*	*	*	84	21
09:45	71	30	*	*	*	*	71	30
10:00	63	5	*	*	*	*	63	5
10:15	65	5	*	*	*	*	65	5
10:30	61	3	*	*	*	*	61	3
10:45	56	8	*	*	*	*	56	8
11:00	83	7	*	*	*	*	83	7
11:15	62	5	*	*	*	*	62	5
11:30	61	9	*	*	*	*	61	9
11:45	69	7	*	*	*	*	69	7
Total	2556	2719	0	0	0	0	2556	2719
Combined Total	5275		0		0		5275	
Peak	07:00	04:30					07:00	04:30
Vol.	550	389					550	389
P.H.F.	0.948	0.831					0.948	0.831
ADT	ADT 5,275		AADT 5,275					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** 11TH ST,NE,SE From E ST,SE TO I ST,SE

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

**Prepared By:** Rahul Jain

**Prepared Date:** 10/6/2013

		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Accident:	30	Right Angle:	8	26.7%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	4	13.3%	Ran Off Road:	0	0.0%
Total Number of Injuries:	17	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	9	30.0%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	1	Side Swiped:	4	13.3%	Non Collision:	1	3.3%
Total Number of Pedestrians Involved:	1	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	0	0.0%	Unspecified:	4	13.3%
Total Number of Motorcycles Involved:	1						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	4	13.3%	Sunday:	2	6.7%
09:30 ~ 11:30:	5	16.7%	Monday:	0	0.0%
11:30 ~ 13:30:	1	3.3%	Tuesday:	6	20.0%
13:30 ~ 16:00:	3	10.0%	Wednesday:	4	13.3%
16:00 ~ 18:30:	10	33.3%	Thursday:	5	16.7%
18:30 ~ 07:30:	7	23.3%	Friday:	7	23.3%
Unspecified:	0	0.0%	Saturday:	6	20.0%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	27	90.0%	Dry:	27	90.0%
Rain:	0	0.0%	Wet:	0	0.0%
Snow:	1	3.3%	Snow/Ice:	1	3.3%
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:	2	6.7%	Unspecified:	2	6.7%

<b>Type of Vehicle</b>	<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	<b>#ACC</b>	<b>%</b>
Passenger Car:	52	83.9%	Fatal Collision:	0	0.0%
Bus:	1	1.6%	Injury Collision:	11	36.7%
Truck:	6	9.7%	PDO Collision:	19	63.3%
Taxi:	2	3.2%			
Minivan:	0	0.0%	<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	0	0.0%	Daylight:	23	76.7%
Motorcycle/Moped:	1	1.6%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	4	13.3%
Fixed Object:	0	0.0%	Dark(Not Lighted):	1	3.3%
Unspecified:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	2	6.7%

<b>Contributing Factor</b>	<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
Driver: Speed:	3	4.8%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%	In Crosswalk against Signal:	1	100.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	15	24.2%	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:	44	71.0%	Unspecified:	0	0.0%

22 Records are not approved as of 10/6/2013 6:49:34 PM



## Accident Summary Report (R-8)

**Corridor:** 11TH ST,NE,SE From E ST,SE TO I ST,SE

**Time Period Covered:** From 11/01/2007 To 11/01/2010

**Prepared By:** Rahul Jain

**Prepared Date:** 12/31/2013

Total Number of Accident:	33	<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:	7	21.2%	Fixed Object:	3	9.1%
Total Number of Injuries:	22	Left Turn:	2	6.1%	Ran Off Road:	1	3.0%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	1	3.0%
Total Number of NonDisabling Injuries:	3	Rear End:	7	21.2%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	7	21.2%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	1	Head On:	2	6.1%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	2	6.1%	Unspecified:	1	3.0%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	
07:30 ~ 09:30:				2	6.1%	Sunday:	
09:30 ~ 11:30:				3	9.1%	Monday:	
11:30 ~ 13:30:				3	9.1%	Tuesday:	
13:30 ~ 16:00:				10	30.3%	Wednesday:	
16:00 ~ 18:30:				7	21.2%	Thursday:	
18:30 ~ 07:30:				8	24.2%	Friday:	
Unspecified:				0	0.0%	Saturday:	
07:30 ~ 09:30:				2	6.1%	Sunday:	
09:30 ~ 11:30:				3	9.1%	Monday:	
11:30 ~ 13:30:				3	9.1%	Tuesday:	
13:30 ~ 16:00:				10	30.3%	Wednesday:	
16:00 ~ 18:30:				7	21.2%	Thursday:	
18:30 ~ 07:30:				8	24.2%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				28	84.8%	Dry:	
Rain:				2	6.1%	Wet:	
Snow:				1	3.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				0	0.0%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				2	6.1%	Unspecified:	
Clear:				28	84.8%	Dry:	
Rain:				2	6.1%	Wet:	
Snow:				1	3.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				0	0.0%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				2	6.1%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				49	75.4%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				8	12.3%	PDO Collision:	
Taxi:				4	6.2%		
Minivan:				0	0.0%	<b>Light Condition</b>	
Police/Emergency Vehicle:				3	4.6%	Daylight:	
Motorcycle/Moped:				0	0.0%	Dawn/Dusk:	
Bicycle:				1	1.5%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				0	0.0%	Dark(Unknown Lighting):	
Passenger Car:				49	75.4%	Unspecified:	
Bus:				0	0.0%		
Truck:				8	12.3%		
Taxi:				4	6.2%		
Minivan:				0	0.0%		
Police/Emergency Vehicle:				3	4.6%		
Motorcycle/Moped:				0	0.0%		
Bicycle:				1	1.5%		
Fixed Object:				0	0.0%		
Unspecified:				0	0.0%		
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				4	6.2%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				2	3.1%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				10	15.4%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				49	75.4%	Unspecified:	
Driver: Speed:				4	6.2%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				2	3.1%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				10	15.4%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				49	75.4%	Unspecified:	

25 Records are not approved as of 12/31/2013 5:53:57 PM

## Accident Summary Report (R-8)

**Corridor:** 11TH ST,NE,SE From E ST,SE TO I ST,SE

**Time Period Covered:** From 11/01/2010 To 11/01/2013

**Prepared By:** Rahul Jain

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

		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Accident:	33	Right Angle:	7	21.2%	Fixed Object:	1	3.0%
Total Number of Fatalities:	0	Left Turn:	3	9.1%	Ran Off Road:	0	0.0%
Total Number of Injuries:	16	Right Turn:	0	0.0%	Ped. Involved:	1	3.0%
Total Number of Disabling Injuries:	0	Rear End:	8	24.2%	Backing:	1	3.0%
Total Number of NonDisabling Injuries:	2	Side Swiped:	6	18.2%	Non Collision:	1	3.0%
Total Number of Pedestrians Involved:	2	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	0	0.0%	Unspecified:	5	15.2%
Total Number of Motorcycles Involved:	1						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	5	15.2%	Sunday:	3	9.1%
09:30 ~ 11:30:	6	18.2%	Monday:	1	3.0%
11:30 ~ 13:30:	2	6.1%	Tuesday:	5	15.2%
13:30 ~ 16:00:	2	6.1%	Wednesday:	7	21.2%
16:00 ~ 18:30:	12	36.4%	Thursday:	6	18.2%
18:30 ~ 07:30:	6	18.2%	Friday:	6	18.2%
Unspecified:	0	0.0%	Saturday:	5	15.2%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	29	87.9%	Dry:	29	87.9%
Rain:	1	3.0%	Wet:	2	6.1%
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:	3	9.1%	Unspecified:	2	6.1%

<b>Type of Vehicle</b>	<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	<b>#ACC</b>	<b>%</b>
Passenger Car:	52	77.6%	Fatal Collision:	0	0.0%
Bus:	3	4.5%	Injury Collision:	11	33.3%
Truck:	5	7.5%	PDO Collision:	22	66.7%
Taxi:	3	4.5%			
Minivan:	0	0.0%	<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	1	1.5%	Daylight:	27	81.8%
Motorcycle/Moped:	1	1.5%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	4	12.1%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	2	3.0%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	2	6.1%

<b>Contributing Factor</b>	<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
Driver: Speed:	0	0.0%	In Crosswalk with Signal:	1	50.0%
Driver: Alcohol/Drug:	0	0.0%	In Crosswalk against Signal:	1	50.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	20	29.9%	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:	47	70.1%	Unspecified:	0	0.0%

20 Records are not approved as of 11/18/2013 5:28:35 PM