



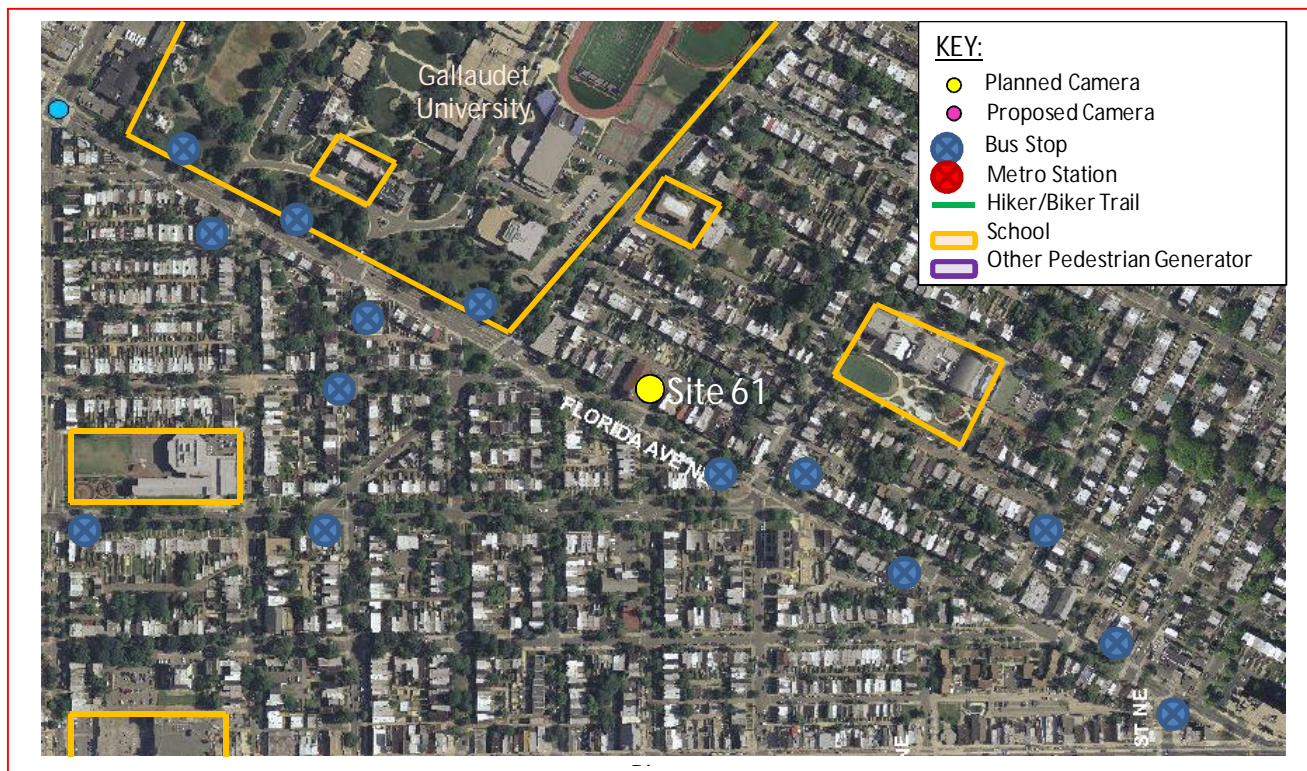
District Department of Transportation

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

### 1100 Block Florida Avenue NE SE/B

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	506	5	5B	Planned	1100 Block Florida Avenue Northeast Southeast-bound



The *planned* speed camera will be located in Ward 5 at the 1100 block of Florida Avenue Northeast in the southeast-bound direction. Florida Avenue Northeast runs between North Capitol Street Northwest to the north and H Street Northeast to the south. The posted speed limit is 25 MPH.

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District Department of Transportation

1100 Block Florida Avenue NE SE/B

## Field Assessment Summary

Florida Avenue is assumed to run in a northwest-southeast direction, and is classified as a principal arterial. Florida Avenue has two travel lanes in each direction. This site has the following characteristics:

- This is a residential area with houses and apartments.
- There are six schools in the area: Kendall Demonstration Elementary School, Gallaudet University, Wheatley Education Campus, Center City Public Charter School – Trinidad Campus, J.O. Wilson Elementary School, and Blair School
- There is sidewalk on both sides of the street and pedestrian crosswalks at 11<sup>th</sup> and 12<sup>th</sup> Streets. There is a HAWK signal for the 11<sup>th</sup> Street Crossing.
- On-street parking on both sides of the street is not allowed from 7-9:30am and 4-6:30pm.
- There is a bus stop near 12<sup>th</sup> Street, as well as others in the surrounding area.
- The pavement is in fair condition and there is curb and gutter on both sides.



Northwest-bound

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District Department of Transportation

1100 Block Florida Avenue NE SE/B



## Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	23
85th Percentile Speed (MPH)	30
10 MPH Pace Speed (MPH)	22-31
ADT	6,265

The mean speed is 2 MPH lower than the posted speed limit and the 85<sup>th</sup> percentile speed is 5 MPH higher than the posted speed limit.

## 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 43 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 (12 crashes), Side Swiped (9 crashes), Left Turn (8 crashes), and Right Angle (6 crashes). The other collision types had three crashes or less each. Furthermore, this site experienced a high frequency (17 crashes) of injury-related crashes.

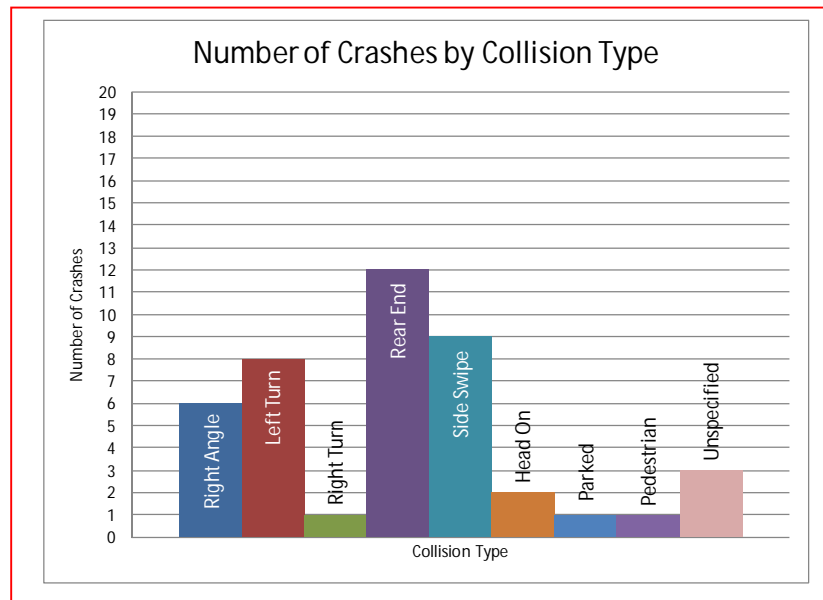
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District Department of Transportation

1100 Block Florida Avenue NE SE/B

Severity			Weather			Surface condition			Light Condition		
Total	43										
Fatal	0	0.0%	Clear	34	79.1%	Dry	35	81.4%	Day	26	60.5%
Injury	17	39.5%	Rain	4	9.3%	Wet	7	16.3%	Night	16	37.2%
Truck	10	23.3%	Crosswind	2	4.7%	Snow/Ice	1	2.3%			
Bus	3	7.0%									



There were an elevated number of speed-related crashes at this location, including rear end and side swipe crashes. The AASHTO Highway Safety Manual lists “assuming the lead driver will go through a green or yellow light, but the lead driver stops” and “changing lanes to avoid a slowing or stopped vehicle”<sup>1</sup> as two errors leading to rear-end and sideswipe crashes. Both of these errors can be decreased with a decrease in travel speed.

The Florida Avenue Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011, according to the report *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*<sup>2</sup>.

<sup>1</sup> AASHTO Highway Safety Manual, 1<sup>st</sup> Edition, 2010; Volume 1, page 2-13

<sup>2</sup> DDOT, TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011), pg. 80.



District Department of Transportation

1100 Block Florida Avenue NE SE/B

## Safety Nexus

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

1. Speed Data – The 85th percentile speed is much higher than the posted speed limit at this location.
2. Crash Data – This location experienced an elevated number of speed related crashes at this location, including rear end and side swipe collisions, as well as a high frequency (17 crashes) of injury related crashes. The Florida Avenue Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. This is a residential area with houses and apartments.
  - b. There are six schools in the area: Kendall Demonstration Elementary School, Gallaudet University, Wheatley Education Campus, Center City Public Charter School – Trinidad Campus, J.O. Wilson Elementary School, and Blair School
  - c. The Samuel E. Wheatley Recreation Center is also in the area which generates pedestrian and bicycle activity
  - d. There are several bus stops in the area which generate pedestrian activity.
  - e. There is on-street parking on both sides of the street.

Due to the speed data analysis, the elevated number of speed-related crashes and 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.

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# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 1100 Blk of Florida Ave NE, SEB Speed

SEB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
12/11/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	18	15	33	46	25	7	1	1	0	0	0	0	0	0	146
14:00	31	37	108	146	60	24	1	1	0	0	0	0	0	0	408
15:00	22	22	81	211	118	18	1	0	0	0	0	0	0	0	473
16:00	57	51	111	248	80	25	4	0	0	0	0	0	0	0	576
17:00	81	104	192	194	68	8	2	0	0	0	0	0	0	0	649
18:00	25	43	159	206	73	10	1	0	0	0	0	0	0	0	517
19:00	22	54	137	135	24	0	0	0	0	0	0	0	0	0	372
20:00	12	39	127	134	35	0	0	0	0	0	0	0	0	0	347
21:00	6	14	87	135	27	0	0	0	0	0	0	0	0	0	269
22:00	19	17	59	103	18	1	0	0	0	0	0	0	0	0	217
23:00	4	10	52	92	23	0	0	0	0	0	0	0	0	0	181
Total	297	406	1146	1650	551	93	10	2	0	0	0	0	0	0	4155

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MOUNT AIRY, MD 21771

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## 1100 Blk of Florida Ave NE, SEB Speed

SEB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
12/12/13	1	4	37	55	9	1	0	0	0	0	0	0	0	0	107
01:00	1	5	15	16	3	1	0	0	0	0	0	0	0	0	41
02:00	0	1	5	24	8	0	0	0	0	0	0	0	0	0	38
03:00	0	1	3	12	4	0	0	0	0	0	0	0	0	0	20
04:00	0	1	8	9	9	0	0	0	0	0	0	0	0	0	27
05:00	1	4	11	20	10	2	0	0	0	0	0	0	0	0	48
06:00	9	21	37	34	12	9	3	0	0	0	0	0	0	0	125
07:00	36	29	86	60	33	13	5	3	0	0	0	0	0	0	265
08:00	62	65	106	83	34	8	3	0	1	0	0	0	0	0	362
09:00	34	41	95	72	31	8	6	2	0	0	0	0	0	0	289
10:00	20	70	85	73	32	12	4	2	0	0	0	0	0	0	298
11:00	28	52	105	94	34	12	1	0	0	0	0	0	0	0	326
12 PM	22	22	57	40	17	5	1	0	0	0	0	0	0	0	164
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Total</b>	<b>214</b>	<b>316</b>	<b>650</b>	<b>592</b>	<b>236</b>	<b>71</b>	<b>23</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2110</b>
<b>Grand Total</b>	<b>511</b>	<b>722</b>	<b>1796</b>	<b>2242</b>	<b>787</b>	<b>164</b>	<b>33</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6265</b>

15th Percentile : 13 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 30 MPH  
 95th Percentile : 34 MPH

Stats  
 Mean Speed(Average) : 23 MPH  
 10 MPH Pace Speed : 22-31 MPH  
 Number in Pace : 3326  
 Percent in Pace : 53.1%  
 Number of Vehicles > 25 MPH : 2834  
 Percent of Vehicles > 25 MPH : 45.2%

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## 1100 Bk of Florida Ave NE, SEB Volume

Start Time	Wed	11-Dec-13		Thu	12-Dec-13		Fri	13-Dec-13		Daily Average	
	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
12:00	*	*		35	86		*	*		35	86
12:15	*	*		30	78		*	*		30	78
12:30	*	*		26	0		*	*		26	0
12:45	*	*		16	0		*	*		16	0
01:00	*	0		13	0		*	*		13	0
01:15	*	0		8	*		*	*		8	0
01:30	*	61		12	*		*	*		12	61
01:45	*	85		8	*		*	*		8	85
02:00	*	97		12	*		*	*		12	97
02:15	*	106		11	*		*	*		11	106
02:30	*	101		10	*		*	*		10	101
02:45	*	104		5	*		*	*		5	104
03:00	*	105		6	*		*	*		6	105
03:15	*	114		5	*		*	*		5	114
03:30	*	122		5	*		*	*		5	122
03:45	*	132		4	*		*	*		4	132
04:00	*	134		4	*		*	*		4	134
04:15	*	138		4	*		*	*		4	138
04:30	*	150		8	*		*	*		8	150
04:45	*	154		11	*		*	*		11	154
05:00	*	177		10	*		*	*		10	177
05:15	*	156		10	*		*	*		10	156
05:30	*	174		12	*		*	*		12	174
05:45	*	142		16	*		*	*		16	142
06:00	*	145		20	*		*	*		20	145
06:15	*	115		25	*		*	*		25	115
06:30	*	124		28	*		*	*		28	124
06:45	*	133		52	*		*	*		52	133
07:00	*	103		55	*		*	*		55	103
07:15	*	115		55	*		*	*		55	115
07:30	*	78		75	*		*	*		75	78
07:45	*	76		80	*		*	*		80	76
08:00	*	106		94	*		*	*		94	106
08:15	*	86		93	*		*	*		93	86
08:30	*	78		89	*		*	*		89	78
08:45	*	77		86	*		*	*		86	77
09:00	*	69		77	*		*	*		77	69
09:15	*	79		75	*		*	*		75	79
09:30	*	56		54	*		*	*		54	56
09:45	*	65		83	*		*	*		83	65
10:00	*	57		72	*		*	*		72	57
10:15	*	53		68	*		*	*		68	53
10:30	*	56		76	*		*	*		76	56
10:45	*	51		82	*		*	*		82	51
11:00	*	45		82	*		*	*		82	45
11:15	*	49		76	*		*	*		76	49
11:30	*	51		87	*		*	*		87	51
11:45	*	36		81	*		*	*		81	36
Total	0	4155		1946	164		0	0		1946	4319
Combined Total		4155		2110			0			6265	
Peak		04:45		08:00	12:00					08:00	04:45
Vol.		661		362	164					362	661
P.H.F.		0.934		0.963	0.477					0.963	0.934
ADT		ADT 6,265		AADT 6,265							



## Accident Summary Report (R-8)

**Corridor:** FLORIDA AVE,NW,NE From WEST VIRGINIA AVE,NE TO MONTELLO AVE,NE

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

**Prepared By:** Rahul Jain

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

Total Number of Accident:	43	<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	14.0%	Fixed Object:	0	0.0%
Total Number of Injuries:	26	Left Turn:	8	18.6%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	1	2.3%	Ped. Involved:	1	2.3%
Total Number of NonDisabling Injuries:	4	Rear End:	12	27.9%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	1	Side Swiped:	9	20.9%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	3	Head On:	2	4.7%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	1	2.3%	Unspecified:	3	7.0%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day o fweek</b>	
07:30 ~ 09:30:				5	11.6%	Sunday:	
09:30 ~ 11:30:				3	7.0%	Monday:	
11:30 ~ 13:30:				5	11.6%	Tuesday:	
13:30 ~ 16:00:				8	18.6%	Wednesday:	
16:00 ~18:30:				6	14.0%	Thursday:	
18:30 ~ 07:30:				16	37.2%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				34	79.1%	Dry:	
Rain:				4	9.3%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				1	2.3%	Slush:	
Fog/Mist:				1	2.3%	Water/Sand:	
Crosswind/Blowing Sand:				2	4.7%	Repairing:	
Unspecified:				1	2.3%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				64	74.4%	Fatal Collision:	
Bus:				3	3.5%	Injury Collision:	
Truck:				10	11.6%	PDO Collision:	
Taxi:				2	2.3%		
Minivan:				0	0.0%	<b>Light Condition</b>	
Police/Emergency Vehicle:				0	0.0%	Daylight:	
Motorcycle/Moped:				0	0.0%	Dawn/Dusk:	
Bicycle:				3	3.5%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				4	4.7%	Dark(Unknown Lighting):	
						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:				1	1.2%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				13	15.1%	In Unmarked Crosswalk:	
Vehicle:				1	1.2%	Not in Crosswalk:	
Roadway:				1	1.2%	From Between Parked Cars:	
Unspecified:				70	81.4%	Unspecified:	

22 Records are not approved as of 10/6/2013 5:05:10 PM