



District Department of Transportation

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

### 3100 Block 4<sup>th</sup> Street NE

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	502	5	5C	Proposed	3100 Block 4 <sup>th</sup> Street Northeast Northbound



This *proposed* speed camera will be located in Ward 5 on the 3100 block of 4<sup>th</sup> Street Northeast in the northbound direction. 4<sup>th</sup> Street Northeast runs between Michigan Avenue Northeast to the north and S Street Northeast to the south. The posted speed limit is 25 MPH.

W5 - 360





District Department of Transportation

3100 Block 4th Street NE

## Field Assessment Summary

4<sup>th</sup> Street Northeast is assumed to run in the north-south direction, and is classified as a minor arterial. 4<sup>th</sup> Street has two travel lanes in each direction. The southbound right lane becomes a right turn only lane at Lincoln Road. This site has the following characteristics:

- There is one school in the area: Trinity Washington University.
- Edgewood Playground is also in the area.
- There is a traffic signal at Lincoln Road.
- There is sidewalk and on-street parking on both sides of the street.
- The pavement is in good condition and there is curb and gutter with drainage inlets.



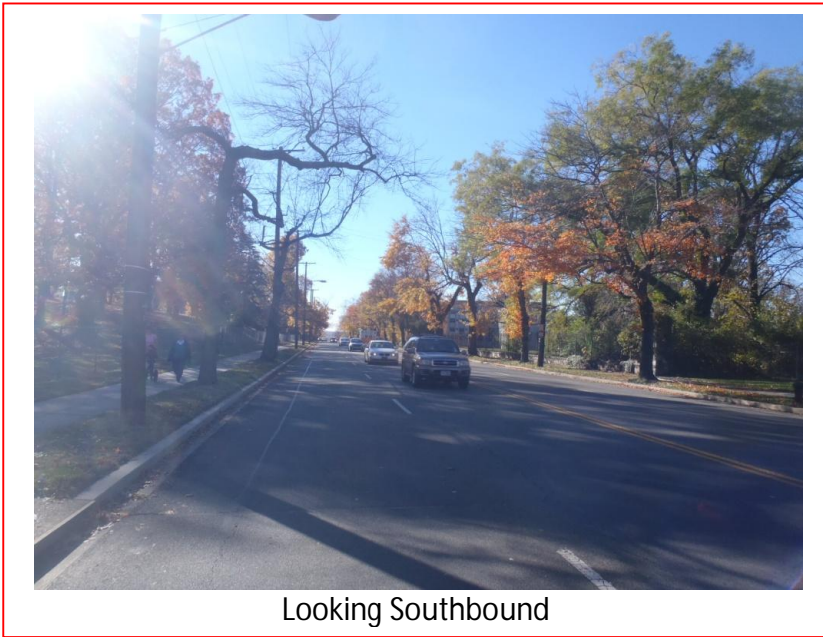
Looking Northbound





District Department of Transportation

3100 Block 4th Street NE



Looking Southbound

## Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	23
85th Percentile Speed (MPH)	33
10 MPH Pace Speed (MPH)	25-34
ADT	7,515

The mean speed is lower than the posted speed limit by 2 MPH and the 85<sup>th</sup> percentile speed is higher than the posted speed by 8 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 28 crashes at this location. A breakdown of 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) and Side Swipe (8 crashes). The other collision types had four crashes or less. Furthermore, this location experienced a high frequency (14 crashes) of injury-related crashes.

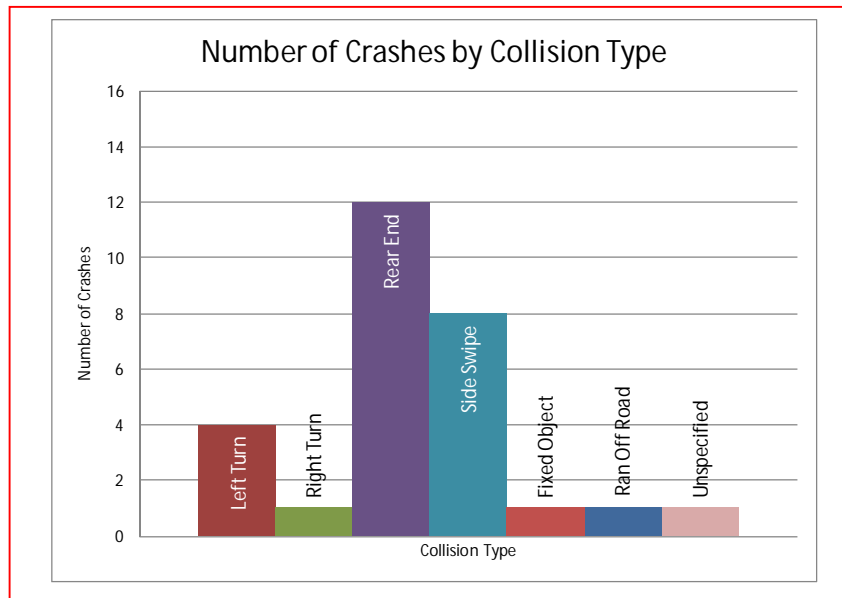
W5 - 362



District Department of Transportation

3100 Block 4th Street NE

Severity			Weather			Surface condition			Light Condition		
Total	28										
Fatal	0	0.0%	Clear	22	78.6%	Dry	21	75.0%	Day	22	78.6%
Injury	14	50.0%	Rain	5	17.9%	Wet	6	21.4%	Night	6	21.4%
Truck	9	32.1%	Snow	1	3.6%	Snow/Ice	1	3.6%			
Bus	2	7.1%									



## Safety Nexus

This site presents the following safety considerations which may support the 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 a high frequency (14 crashes) of injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. There is one school in the area: Trinity Washington University.
  - b. Edgewood Playground is in the area which generates pedestrian and bicycle activity.
  - c. There are several bus stops in the area which generate pedestrian activity.
  - d. There is on-street parking on both sides of the street.

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

W5 - 363

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 3100 block of 4th St NE NB Speed

NB

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
11/15/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	1	0	3	16	16	8	4	0	0	0	0	0	0	0	48
02:00	0	0	5	17	13	5	3	1	0	0	0	0	0	0	44
03:00	2	0	5	10	11	7	0	0	0	0	0	0	0	0	35
04:00	0	2	1	13	14	6	0	0	0	0	0	0	0	0	36
05:00	0	1	3	29	39	14	6	0	0	0	0	0	0	0	92
06:00	2	5	25	76	67	38	8	2	0	0	0	0	0	0	223
07:00	48	29	106	163	110	35	11	3	0	0	0	0	0	0	505
08:00	28	17	88	181	133	41	9	3	0	0	0	0	0	0	500
09:00	4	10	34	163	140	39	11	2	0	0	0	0	0	0	403
10:00	5	6	26	174	122	38	8	1	1	0	0	0	0	0	381
11:00	8	4	30	146	139	52	5	1	0	0	0	0	0	0	385
12 PM	11	12	63	194	131	49	10	1	0	1	0	0	0	0	472
13:00	8	10	47	153	145	57	7	2	0	0	0	0	0	0	429
14:00	44	36	79	183	137	37	13	0	0	0	0	0	0	0	529
15:00	336	64	64	73	27	6	3	0	0	0	0	0	0	0	573
16:00	359	51	48	43	14	1	2	0	0	0	0	0	0	0	518
17:00	438	5	0	0	0	0	0	0	0	0	0	0	0	0	443
18:00	310	31	48	47	20	4	2	2	0	0	0	0	0	0	464
19:00	5	2	42	143	122	25	5	0	0	0	0	0	0	0	344
20:00	6	1	19	102	103	38	9	3	0	0	0	0	0	0	281
21:00	3	8	20	100	84	27	10	2	1	0	0	0	0	0	255
22:00	1	1	15	117	77	24	8	0	0	0	0	0	0	0	243
23:00	2	0	17	68	66	24	3	2	0	0	0	0	0	0	182
Total	1621	295	788	2211	1730	575	137	25	2	1	0	0	0	0	7385

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## 3100 block of 4th St NE NB Speed

NB

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
11/16/13	1	0	8	67	39	14	1	0	0	0	0	0	0	0	130
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	8	67	39	14	1	0	0	0	0	0	0	0	130
Grand Total	1622	295	796	2278	1769	589	138	25	2	1	0	0	0	0	7515

15th Percentile : 7 MPH  
 50th Percentile : 25 MPH  
 85th Percentile : 33 MPH  
 95th Percentile : 37 MPH

Stats  
 Mean Speed(Average) : 23 MPH  
 10 MPH Pace Speed : 25-34 MPH  
 Number in Pace : 3142  
 Percent in Pace : 41.8%  
 Number of Vehicles > 25 MPH : 3878  
 Percent of Vehicles > 25 MPH : 51.6%

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## 3100 block of 4th St NE NB Volume

Start Time	Fri	15-Nov-13	Sat	16-Nov-13	Sun	17-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	115	44	*	*	*	44	115
12:15	*	107	33	*	*	*	33	107
12:30	*	114	27	*	*	*	27	114
12:45	*	136	26	*	*	*	26	136
01:00	11	105	*	*	*	*	11	105
01:15	10	106	*	*	*	*	10	106
01:30	13	124	*	*	*	*	13	124
01:45	14	94	*	*	*	*	14	94
02:00	16	116	*	*	*	*	16	116
02:15	8	132	*	*	*	*	8	132
02:30	13	127	*	*	*	*	13	127
02:45	7	154	*	*	*	*	7	154
03:00	15	157	*	*	*	*	15	157
03:15	7	159	*	*	*	*	7	159
03:30	7	124	*	*	*	*	7	124
03:45	6	133	*	*	*	*	6	133
04:00	8	146	*	*	*	*	8	146
04:15	6	147	*	*	*	*	6	147
04:30	7	107	*	*	*	*	7	107
04:45	15	118	*	*	*	*	15	118
05:00	11	108	*	*	*	*	11	108
05:15	25	116	*	*	*	*	25	116
05:30	29	107	*	*	*	*	29	107
05:45	27	112	*	*	*	*	27	112
06:00	31	92	*	*	*	*	31	92
06:15	51	127	*	*	*	*	51	127
06:30	55	118	*	*	*	*	55	118
06:45	86	127	*	*	*	*	86	127
07:00	110	95	*	*	*	*	110	95
07:15	108	89	*	*	*	*	108	89
07:30	138	80	*	*	*	*	138	80
07:45	149	80	*	*	*	*	149	80
08:00	142	88	*	*	*	*	142	88
08:15	126	67	*	*	*	*	126	67
08:30	122	58	*	*	*	*	122	58
08:45	110	68	*	*	*	*	110	68
09:00	114	67	*	*	*	*	114	67
09:15	96	69	*	*	*	*	96	69
09:30	102	59	*	*	*	*	102	59
09:45	91	60	*	*	*	*	91	60
10:00	114	59	*	*	*	*	114	59
10:15	85	74	*	*	*	*	85	74
10:30	96	60	*	*	*	*	96	60
10:45	86	50	*	*	*	*	86	50
11:00	84	61	*	*	*	*	84	61
11:15	80	36	*	*	*	*	80	36
11:30	120	47	*	*	*	*	120	47
11:45	101	38	*	*	*	*	101	38
Total	2652	4733	130	0	0	0	2782	4733
Combined Total	7385		130		0		7515	
Peak	07:30	02:30	12:00				07:30	02:30
Vol.	555	597	130				555	597
P.H.F.	0.931	0.939	0.739				0.931	0.939
ADT	ADT 7,515		AADT 7,515					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** 4TH ST,NE,SE From MICHIGAN AVE,NE TO LINCOLN RD,NE

**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:	28	Right Angle:	0	0.0%	Fixed Object:	1	3.6%
Total Number of Fatalities:	0	Left Turn:	4	14.3%	Ran Off Road:	1	3.6%
Total Number of Injuries:	25	Right Turn:	1	3.6%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	12	42.9%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	3	Side Swiped:	8	28.6%	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:	2	Parked:	0	0.0%	Unspecified:	1	3.6%
Total Number of Motorcycles Involved:	0						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>	<b>Day o fweek</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	5	17.9%	Sunday:	2	7.1%
09:30 ~ 11:30:	6	21.4%	Monday:	4	14.3%
11:30 ~ 13:30:	1	3.6%	Tuesday:	6	21.4%
13:30 ~ 16:00:	5	17.9%	Wednesday:	5	17.9%
16:00 ~18:30:	4	14.3%	Thursday:	4	14.3%
18:30 ~ 07:30:	7	25.0%	Friday:	2	7.1%
Unspecified:	0	0.0%	Saturday:	5	17.9%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	22	78.6%	Dry:	21	75.0%
Rain:	5	17.9%	Wet:	6	21.4%
Snow:	1	3.6%	Snow/Ice:	1	3.6%
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:	41	73.2%	Fatal Collision:	0	0.0%
Bus:	2	3.6%	Injury Collision:	14	50.0%
Truck:	9	16.1%	PDO Collision:	14	50.0%
Taxi:	2	3.6%			
Minivan:	0	0.0%	<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	0	0.0%	Daylight:	22	78.6%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	2	3.6%	Dark(Lighted):	6	21.4%
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>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
Driver: Speed:	3	5.4%	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:	7	12.5%	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:	46	82.1%	Unspecified:	0	0.0%

16 Records are not approved as of 9/16/2013 8:49:44 AM