



District Department of Transportation

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

1100 Block 4th Street NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	104	6	6C	Proposed	1100 Block 4 th Street Northeast Southbound



This *proposed* speed camera will be located in Ward 6 at the 1100 block of 4th Street Northeast in the southbound direction. 4th Street Northeast starts from Michigan Avenue Northeast from the North and ends at East Capitol Street Southeast to the south, where it becomes 4th Street Southeast. The posted speed limit is 25 MPH.

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District Department of Transportation

1100 Block 4th Street NE

Field Assessment Summary

The speed camera is located on the southeast corner of L Street Northeast and 4th Street Northeast. 4th Street is assumed to run in the north-south direction, and is classified as a collector roadway. 4th Street is a one-way street in the southbound direction with one travel lane and one bike lane. The bike lane is on the west side of the street. This site has the following characteristics:

- This site is located in a residential area with single family homes on both sides of the street.
- Hayes School and J.O. Wilson Elementary School that are located on the east side of the area.
- Three more schools are in the area: Gallaudet College, Two Rivers Public Charter School, and Blair School. Also there is a Baptist Church near the speed camera.
- An existing traffic signal and crosswalks with pedestrian indications is located on the north end of the block.
- There is a bicycle lane in the southbound direction.
- There are brick sidewalks with curb and gutter and on-Street parking on both sides of the street.
- The existing pavement condition is very good.
- An existing bus stop is located on the south end of the block.



Looking Southbound

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District Department of Transportation

1100 Block 4th Street NE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	17
85th Percentile Speed (MPH)	23
10 MPH Pace Speed (MPH)	15-24
ADT	1,919

The mean speed is lower than the posted speed limit by 8 MPH and the 85th percentile speed is lower than the posted speed limit by 2 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 8 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 type of collision at this location was Side Swipe with three crashes. There was one crash each of types Rear End, Parked Vehicle, Backing, Pedestrian Involved, and Unspecified. There was one (1) crash where vehicular speeding was the contributing factor.

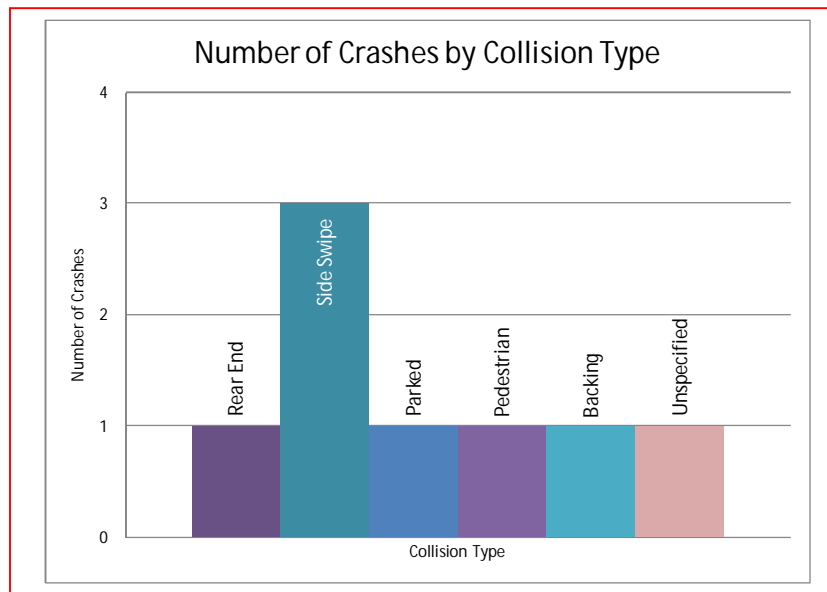
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District Department of Transportation

1100 Block 4th Street NE

Severity			Weather			Surface condition			Light Condition		
Total	8										
Fatal	0	0.0%	Clear	5	62.5%	Dry	5	62.5%	Day	5	62.5%
Injury	2	25.0%	Rain	1	12.5%	Wet	1	12.5%	Night	2	25.0%
Truck	2	25.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bicycle	0	0.0%									



Safety Nexus

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

1. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – There was one (1) crash where vehicular speeding was the contributing factor.
3. Field Assessment- The following site characteristics suggest a need for a safer travel environment:
 - a. This is a residential area with houses on both sides of the street.
 - b. There are five schools in the area: Hayes School, J.O. Wilson Elementary School, Gallaudet College, Two Rivers Public Charter School, and Blair School.
 - c. There are multiple bus stops in the area which generate pedestrian activity.
 - d. There is a bicycle lane in the southbound direction.
 - e. There is on-street parking at this location.



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1100 Block 4th Street NE

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, due to the specific site characteristics, the proximity of schools to the site, the multimodal transportation options available 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

1100 block of 4th St NE 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
11/16/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	1	4	5	1	0	0	0	0	0	0	0	0	0	0	11
02:00	7	6	12	3	0	0	0	0	0	0	0	0	0	0	28
03:00	0	3	9	1	0	0	0	0	0	0	0	0	0	0	13
04:00	5	8	6	2	0	0	0	0	0	0	0	0	0	0	21
05:00	4	4	7	1	0	0	0	0	0	0	0	0	0	0	16
06:00	2	5	14	5	0	0	0	0	0	0	0	0	0	0	26
07:00	10	8	12	1	0	0	0	0	0	0	0	0	0	0	31
08:00	5	25	30	6	0	0	0	0	0	0	0	0	0	0	66
09:00	14	42	33	1	0	0	0	0	0	0	0	0	0	0	90
10:00	18	40	34	4	0	0	0	0	0	0	0	0	0	0	96
11:00	16	64	44	2	0	0	0	0	0	0	0	0	0	0	126
12 PM	17	58	48	5	0	0	0	0	0	0	0	0	0	0	128
13:00	31	61	46	2	0	0	0	0	0	0	0	0	0	0	140
14:00	16	65	74	7	0	0	0	0	0	0	0	0	0	0	162
15:00	12	67	71	6	0	0	0	0	0	0	0	0	0	0	156
16:00	23	53	43	6	0	0	0	0	0	0	0	0	0	0	125
17:00	28	51	76	6	0	0	0	0	0	0	0	0	0	0	161
18:00	36	50	30	0	0	0	0	0	0	0	0	0	0	0	116
19:00	14	29	29	2	0	0	0	0	0	0	0	0	0	0	74
20:00	17	27	31	2	0	0	0	0	0	0	0	0	0	0	77
21:00	3	27	24	7	0	0	0	0	0	0	0	0	0	0	61
22:00	5	16	27	3	0	0	0	0	0	0	0	0	0	0	51
23:00	11	18	25	3	0	0	0	0	0	0	0	0	0	0	57
Total	295	731	730	76	0	0	0	0	0	0	0	0	0	0	1832

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1100 block of 4th St NE 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
11/17/13	7	22	19	5	0	0	0	0	0	0	0	0	0	0	53
01:00	15	9	10	0	0	0	0	0	0	0	0	0	0	0	34
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	22	31	29	5	0	0	0	0	0	0	0	0	0	0	87
Grand Total	317	762	759	81	0	0	0	0	0	0	0	0	0	0	1919

15th Percentile : 9 MPH
 50th Percentile : 17 MPH
 85th Percentile : 23 MPH
 95th Percentile : 25 MPH

Stats
 Mean Speed(Average) : 17 MPH
 10 MPH Pace Speed : 15-24 MPH
 Number in Pace : 1083
 Percent in Pace : 56.4%
 Number of Vehicles > 25 MPH : 122
 Percent of Vehicles > 25 MPH : 6.4%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1100 block of 4th St NE SB Volume

Start Time	Sat	16-Nov-13	Sun	17-Nov-13	Mon	18-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	38	14	*	*	*	14	38
12:15	*	35	10	*	*	*	10	35
12:30	*	30	16	*	*	*	16	30
12:45	*	25	13	*	*	*	13	25
01:00	*	38	13	*	*	*	13	38
01:15	*	29	6	*	*	*	6	29
01:30	*	37	15	*	*	*	15	37
01:45	11	36	*	*	*	*	11	36
02:00	4	38	*	*	*	*	4	38
02:15	11	40	*	*	*	*	11	40
02:30	3	33	*	*	*	*	3	33
02:45	10	51	*	*	*	*	10	51
03:00	3	53	*	*	*	*	3	53
03:15	2	46	*	*	*	*	2	46
03:30	4	31	*	*	*	*	4	31
03:45	4	26	*	*	*	*	4	26
04:00	6	32	*	*	*	*	6	32
04:15	7	32	*	*	*	*	7	32
04:30	5	36	*	*	*	*	5	36
04:45	3	25	*	*	*	*	3	25
05:00	3	38	*	*	*	*	3	38
05:15	4	44	*	*	*	*	4	44
05:30	2	33	*	*	*	*	2	33
05:45	7	46	*	*	*	*	7	46
06:00	2	24	*	*	*	*	2	24
06:15	7	31	*	*	*	*	7	31
06:30	7	32	*	*	*	*	7	32
06:45	10	29	*	*	*	*	10	29
07:00	10	22	*	*	*	*	10	22
07:15	7	21	*	*	*	*	7	21
07:30	6	18	*	*	*	*	6	18
07:45	8	13	*	*	*	*	8	13
08:00	19	12	*	*	*	*	19	12
08:15	13	21	*	*	*	*	13	21
08:30	19	15	*	*	*	*	19	15
08:45	15	29	*	*	*	*	15	29
09:00	20	20	*	*	*	*	20	20
09:15	17	13	*	*	*	*	17	13
09:30	24	13	*	*	*	*	24	13
09:45	29	15	*	*	*	*	29	15
10:00	20	15	*	*	*	*	20	15
10:15	21	11	*	*	*	*	21	11
10:30	31	14	*	*	*	*	31	14
10:45	24	11	*	*	*	*	24	11
11:00	22	10	*	*	*	*	22	10
11:15	37	9	*	*	*	*	37	9
11:30	29	23	*	*	*	*	29	23
11:45	38	15	*	*	*	*	38	15
Total	524	1308	87	0	0	0	611	1308
Combined Total	1832		87		0		1919	
Peak	11:00	02:30	12:00				11:00	02:30
Vol.	126	183	53				126	183
P.H.F.	0.829	0.863	0.828				0.829	0.863
ADT	ADT 1,919		AADT 1,919					

Accident Summary Report (R-8)

Corridor: 4TH ST,NE,SE From M ST,NE TO L ST,NE

Time Period Covered: From 1/1/2010 To 12/31/2012

Prepared By: Rahul Jain

Prepared Date: 9/15/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	8	Right Angle:	0	0.0%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Injuries:	2	Right Turn:	0	0.0%	Ped. Involved:	1	12.5%
Total Number of Disabling Injuries:	1	Rear End:	1	12.5%	Backing:	1	12.5%
Total Number of NonDisabling Injuries:	0	Side Swiped:	3	37.5%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	1	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	1	12.5%	Unspecified:	1	12.5%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%	Day of week	#ACC	%
07:30 ~ 09:30:	1	12.5%	Sunday:	1	12.5%
09:30 ~ 11:30:	2	25.0%	Monday:	1	12.5%
11:30 ~ 13:30:	1	12.5%	Tuesday:	2	25.0%
13:30 ~ 16:00:	1	12.5%	Wednesday:	1	12.5%
16:00 ~ 18:30:	0	0.0%	Thursday:	2	25.0%
18:30 ~ 07:30:	3	37.5%	Friday:	0	0.0%
Unspecified:	0	0.0%	Saturday:	1	12.5%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	5	62.5%	Dry:	5	62.5%
Rain:	1	12.5%	Wet:	1	12.5%
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:	2	25.0%	Unspecified:	2	25.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	7	43.8%	Fatal Collision:	0	0.0%
Bus:	0	0.0%	Injury Collision:	2	25.0%
Truck:	2	12.5%	PDO Collision:	6	75.0%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	5	62.5%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	0	0.0%	Dark(Lighted):	2	25.0%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	7	43.8%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	1	12.5%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	6.3%	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:	4	25.0%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	0	0.0%	From Between Parked Cars:	1	100.0%
Unspecified:	11	68.8%	Unspecified:	0	0.0%

5 Records are not approved as of 9/15/2013 8:22:15 PM