



District Department of Transportation

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

1400 Block E Capitol Street

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	108	6	6A	Proposed	1400 Block East Capitol Street Eastbound and Westbound



The *proposed* speed camera will be located in Ward 6 at the 1400 block of East Capitol Street for the eastbound and westbound traffic. East Capitol Street runs from First Street Northeast in the west to Capitol Heights, MD in the east. The posted speed limit is 25 MPH.

W6 - 278





District Department of Transportation

1400 Block E Capitol Street

Field Assessment Summary

East Capitol Street is assumed to run in an east-west direction and is classified as a collector road. East Capitol Street has one travel lane in each direction. This site has the following characteristics:

- This site is located in a residential area with houses and apartments on both sides of the roadway.
- There are sidewalks on both sides of the street and in road bike paths in each direction.
- There are multiple bus stops in the area that generate pedestrian traffic.
- There are 3 schools in the area: Maury Elementary School, Eliot-Hine Middle School and Eastern Senior High School.
- There are crosswalks on all 4 legs of the East Capitol St/14th Street NE intersection.



Looking Eastbound

W6 - 279



District Department of Transportation

1400 Block E Capitol Street



Looking Westbound

Speed Data Analysis

	Westbound	Eastbound
Posted Speed Limit (MPH)	25	25
Mean Speed (MPH)	20	22
85th Percentile Speed (MPH)	28	29
10 MPH Pace Speed	20-29	21-30
Sample Size	1,886	3,241
ADT	5,127	

The mean speed is less than the posted speed in both directions and the 85th percentile speed is greater than the posted speed limit in both locations at this intersection.

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 nine 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 crashes at this location were Right Angle (2) and Rear End (2).

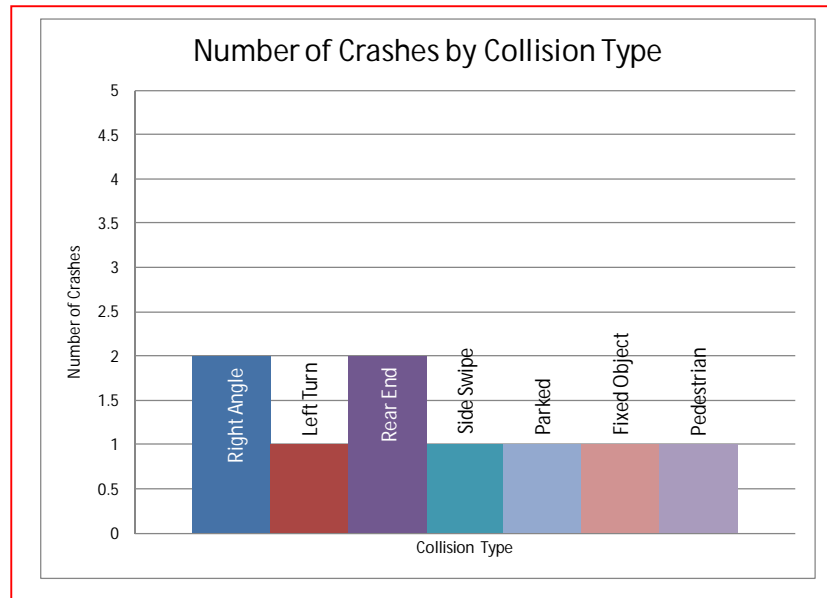
W6 - 280



District Department of Transportation

1400 Block E Capitol Street

Severity			Weather			Surface condition			Light Condition		
Total	9										
Fatal	0	0.0%	Clear	7	77.8%	Dry	7	77.8%	Day	6	66.7%
Injury	1	11.1%	Rain	1	11.1%	Wet	1	11.1%	Night	1	11.1%
Taxi	2	22.2%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	1	11.1%									



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 85th percentile speed is much higher than the posted speed limit on both eastbound and westbound direction at this location.
2. Crash Data – The crash data analysis shows a low number of crashes at this location.
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 many apartment buildings and houses on both sides of the street and in the surrounding area.
 - b. There are multiple bus stops in the area which generate pedestrian activity.
 - c. There are 3 schools in the area: Maury Elementary School, Eliot-Hine Middle School and Eastern Senior High School.

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District Department of Transportation

1400 Block E Capitol Street

Although the crash data analysis showed a low number of crashes at this location, due to the speed data analysis, 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.

W6 - 282

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1400 block of East Capitol St NE Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/19/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	3	2	0	1	3	0	0	0	0	0	0	0	0	0	9
02:00	1	1	0	4	3	1	0	0	0	0	0	0	0	0	10
03:00	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	4	0	1	0	0	0	0	0	0	0	0	0	5
06:00	6	0	5	2	1	0	0	0	0	0	0	0	0	0	14
07:00	18	1	11	12	3	0	0	0	0	0	0	0	0	0	45
08:00	20	11	24	37	4	0	0	0	0	0	0	0	0	0	96
09:00	22	7	26	26	11	0	0	0	0	0	0	0	0	0	92
10:00	19	5	31	26	7	1	0	0	0	0	0	0	0	0	89
11:00	9	4	36	8	12	2	0	0	0	0	0	0	0	0	71
12 PM	11	6	16	21	4	0	0	0	0	0	0	0	0	0	58
13:00	8	6	27	22	3	4	0	0	0	0	0	0	0	0	70
14:00	14	10	26	20	4	0	0	0	0	0	0	0	0	0	74
15:00	12	18	42	23	7	2	1	0	0	0	0	0	0	0	105
16:00	30	14	56	27	3	3	0	0	0	0	0	0	0	0	133
17:00	30	34	90	31	9	1	0	0	0	0	0	0	0	0	195
18:00	21	49	96	45	9	3	0	0	0	0	0	0	0	0	223
19:00	24	48	77	25	4	2	0	0	0	0	0	0	0	0	180
20:00	12	20	43	37	17	2	0	0	0	0	0	0	0	0	131
21:00	9	12	41	32	9	2	0	0	0	0	0	0	0	0	105
22:00	9	12	22	16	9	0	0	0	0	0	0	0	0	0	68
23:00	4	1	18	25	6	2	1	0	0	0	0	0	0	0	57
Total	283	261	691	444	129	25	2	0	0	0	0	0	0	0	1835

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WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/20/13	4	2	12	10	8	5	1	0	0	0	0	0	0	0	42
01:00	1	0	3	2	1	2	0	0	0	0	0	0	0	0	9
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	5	2	15	12	9	7	1	0	0	0	0	0	0	0	51
Grand Total	288	263	706	456	138	32	3	0	0	0	0	0	0	0	1886

15th Percentile : 9 MPH
 50th Percentile : 21 MPH
 85th Percentile : 28 MPH
 95th Percentile : 32 MPH

Stats
 Mean Speed(Average) : 20 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 917
 Percent in Pace : 48.6%
 Number of Vehicles > 25 MPH : 553
 Percent of Vehicles > 25 MPH : 29.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
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1400 block of East Capitol St NE Speed

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/19/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	2	0	1	2	1	0	0	0	0	0	0	0	0	0	6
02:00	1	2	3	2	0	0	0	0	0	0	0	0	0	0	8
03:00	0	1	1	0	1	0	0	0	0	0	0	0	0	0	3
04:00	0	1	2	4	2	0	0	0	0	0	0	0	0	0	9
05:00	1	1	5	8	3	2	0	0	0	0	0	0	0	0	20
06:00	1	0	11	36	32	8	0	0	0	0	0	0	0	0	88
07:00	8	15	64	105	75	19	1	0	0	0	0	0	0	0	287
08:00	23	54	164	208	43	5	0	0	0	0	0	0	0	0	497
09:00	119	72	160	153	21	3	0	0	0	0	0	0	0	0	528
10:00	10	5	70	139	64	10	0	0	0	0	0	0	0	0	298
11:00	21	16	32	45	17	1	0	0	0	0	0	0	0	0	132
12 PM	16	7	28	36	9	2	0	0	0	0	0	0	0	0	98
13:00	12	13	26	30	31	3	0	0	0	0	0	0	0	0	115
14:00	13	11	36	52	17	1	0	0	0	0	0	0	0	0	130
15:00	17	23	45	46	11	0	0	0	0	0	0	0	0	0	142
16:00	33	23	30	30	2	0	0	0	0	0	0	0	0	0	118
17:00	42	47	39	21	6	0	0	0	0	0	0	0	0	0	155
18:00	28	22	64	31	4	0	0	0	0	0	0	0	0	0	149
19:00	46	41	50	20	1	0	0	0	0	0	0	0	0	0	158
20:00	10	19	46	33	0	0	0	0	0	0	0	0	0	0	108
21:00	4	11	16	17	5	0	0	0	0	0	0	0	0	0	53
22:00	3	13	26	22	1	0	0	0	0	0	0	0	0	0	65
23:00	1	3	15	20	4	0	0	0	0	0	0	0	0	0	43
Total	411	400	934	1060	350	54	1	0	0	0	0	0	0	0	3210

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EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/20/13	0	3	10	5	1	0	0	0	0	0	0	0	0	0	19
01:00	3	0	7	2	0	0	0	0	0	0	0	0	0	0	12
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	3	3	17	7	1	0	0	0	0	0	0	0	0	0	31
Grand Total	414	403	951	1067	351	54	1	0	0	0	0	0	0	0	3241

15th Percentile : 10 MPH
 50th Percentile : 22 MPH
 85th Percentile : 29 MPH
 95th Percentile : 33 MPH

Stats
 Mean Speed(Average) : 22 MPH
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 1603
 Percent in Pace : 49.5%
 Number of Vehicles > 25 MPH : 1253
 Percent of Vehicles > 25 MPH : 38.7%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1400 block of East Capitol St NE Volume

Start Time	19-Nov-13 Tue		WB		EB		Combined		20-Nov-Wed	WB		EB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	11	*	21	*	32	*	32							
12:15	*	13	*	25	*	38	*	38							
12:30	*	15	*	32	*	47	*	47							
12:45	*	19	*	20	*	39	*	39							
01:00	*	23	*	23	*	46	*	46							
01:15	*	15	*	34	*	49	*	49							
01:30	7	18	4	22	11	40		40							
01:45	2	14	2	36	4	50		50							
02:00	2	15	1	36	3	51		51							
02:15	4	22	3	40	7	62		62							
02:30	2	17	0	34	2	51		51							
02:45	2	20	4	20	6	40		40							
03:00	3	25	1	33	4	58		58							
03:15	0	24	1	39	1	63		63							
03:30	0	22	0	35	0	57		57							
03:45	1	34	1	35	2	69		69							
04:00	0	28	0	28	0	56		56							
04:15	1	24	3	40	4	64		64							
04:30	0	41	3	26	3	67		67							
04:45	0	40	3	24	3	64		64							
05:00	1	45	6	33	7	78		78							
05:15	0	56	1	44	1	100		100							
05:30	1	45	5	35	6	80		80							
05:45	3	49	8	43	11	92		92							
06:00	2	52	7	27	9	79		79							
06:15	2	52	25	35	27	87		87							
06:30	4	64	21	47	25	111		111							
06:45	6	55	35	40	41	95		95							
07:00	4	46	50	27	54	73		73							
07:15	9	58	74	34	83	92		92							
07:30	6	37	80	57	86	94		94							
07:45	26	39	83	40	109	79		79							
08:00	19	47	111	32	130	79		79							
08:15		24	26	123	25	147	51	51							
08:30		23	28	145	24	168	52	52							
08:45		30	30	118	27	148	57	57							
09:00		28	22	135	16	163	38	38							
09:15		22	31	144	12	166	43	43							
09:30		21	29	140	13	161	42	42							
09:45		21	23	109	12	130	35	35							
10:00		29	18	94	21	123	39	39							
10:15		20	19	88	13	108	32	32							
10:30		21	16	70	17	91	33	33							
10:45		19	15	46	14	65	29	29							
11:00		14	14	37	17	51	31	31							
11:15		19	15	31	8	50	23	23							
11:30		16	12	27	11	43	23	23							
11:45		22	16	37	7	59	23	23							

Total	436	1399	1876	1334	2312	2733	51	0	31	0	82	0
Day Total	1835		3210		5045		51		31		82	
% Total	8.6%	27.7%	37.2%	26.4%			62.2%	0.0%	37.8%	0.0%		
Peak Vol.	08:15 105	06:00 223	08:30 542	07:15 163	08:30 645	06:00 372	12:00 42		12:00 19		12:00 61	
P.H.F.	0.875	0.871	0.934	0.715	0.960	0.838	0.700		0.792		0.726	

ADT ADT 5,127 AADT 5,127

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: EAST CAPITOL ST,BN From THIRTEENTH ST,BN TO FIFTEENTH ST,BN

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

Prepared By: Rahul Jain

Prepared Date: 9/15/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	9	Right Angle:	2	22.2%	Fixed Object:	1	11.1%
Total Number of Fatalities:	0	Left Turn:	1	11.1%	Ran Off Road:	0	0.0%
Total Number of Injuries:	1	Right Turn:	0	0.0%	Ped. Involved:	1	11.1%
Total Number of Disabling Injuries:	0	Rear End:	2	22.2%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	0	Side Swiped:	1	11.1%	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	11.1%	Unspecified:	0	0.0%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%
07:30 ~ 09:30:	1	11.1%
09:30 ~ 11:30:	0	0.0%
11:30 ~ 13:30:	1	11.1%
13:30 ~ 16:00:	3	33.3%
16:00 ~18:30:	1	11.1%
18:30 ~ 07:30:	3	33.3%
Unspecified:	0	0.0%

Day o fweek	#ACC	%
Sunday:	1	11.1%
Monday:	2	22.2%
Tuesday:	1	11.1%
Wednesday:	1	11.1%
Thursday:	2	22.2%
Friday:	1	11.1%
Saturday:	1	11.1%

Weather Condition	#ACC	%
Clear:	7	77.8%
Rain:	1	11.1%
Snow:	0	0.0%
Sleet/Hail:	0	0.0%
Fog/Mist:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%
Unspecified:	1	11.1%

Surface Condition	#ACC	%
Dry:	7	77.8%
Wet:	1	11.1%
Snow/Ice:	0	0.0%
Slush:	0	0.0%
Water/Sand:	0	0.0%
Repairing:	0	0.0%
Unspecified:	1	11.1%

Type of Vehicle	#VEH	%
Passenger Car:	13	65.0%
Bus:	1	5.0%
Truck:	1	5.0%
Taxi:	2	10.0%
Minivan:	0	0.0%
Police/Emergency Vehicle:	0	0.0%
Motorcycle/Moped:	0	0.0%
Bicycle:	0	0.0%
Fixed Object:	0	0.0%
Unspecified:	3	15.0%

Accident Severity Type	#ACC	%
Fatal Collision:	0	0.0%
Injury Collision:	1	11.1%
PDO Collision:	8	88.9%

Light Condition	#ACC	%
Daylight:	6	66.7%
Dawn/Dusk:	1	11.1%
Dark(Lighted):	1	11.1%
Dark(Not Lighted):	0	0.0%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	1	11.1%

Contributing Factor	#VEH	%
Driver: Speed:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%
Driver: Electronic Device:	0	0.0%
Driver: Others:	2	10.0%
Vehicle:	0	0.0%
Roadway:	0	0.0%
Unspecified:	18	90.0%

Pedestrian Actions	#ACC	%
In Crosswalk with Signal:	1	100.0%
In Crosswalk against Signal:	0	0.0%
In Crosswalk no Signal:	0	0.0%
In Unmarked Crosswalk:	0	0.0%
Not in Crosswalk:	0	0.0%
From Between Parked Cars:	0	0.0%
Unspecified:	0	0.0%

8 Records are not approved as of 9/15/2013 8:41:36 PM