



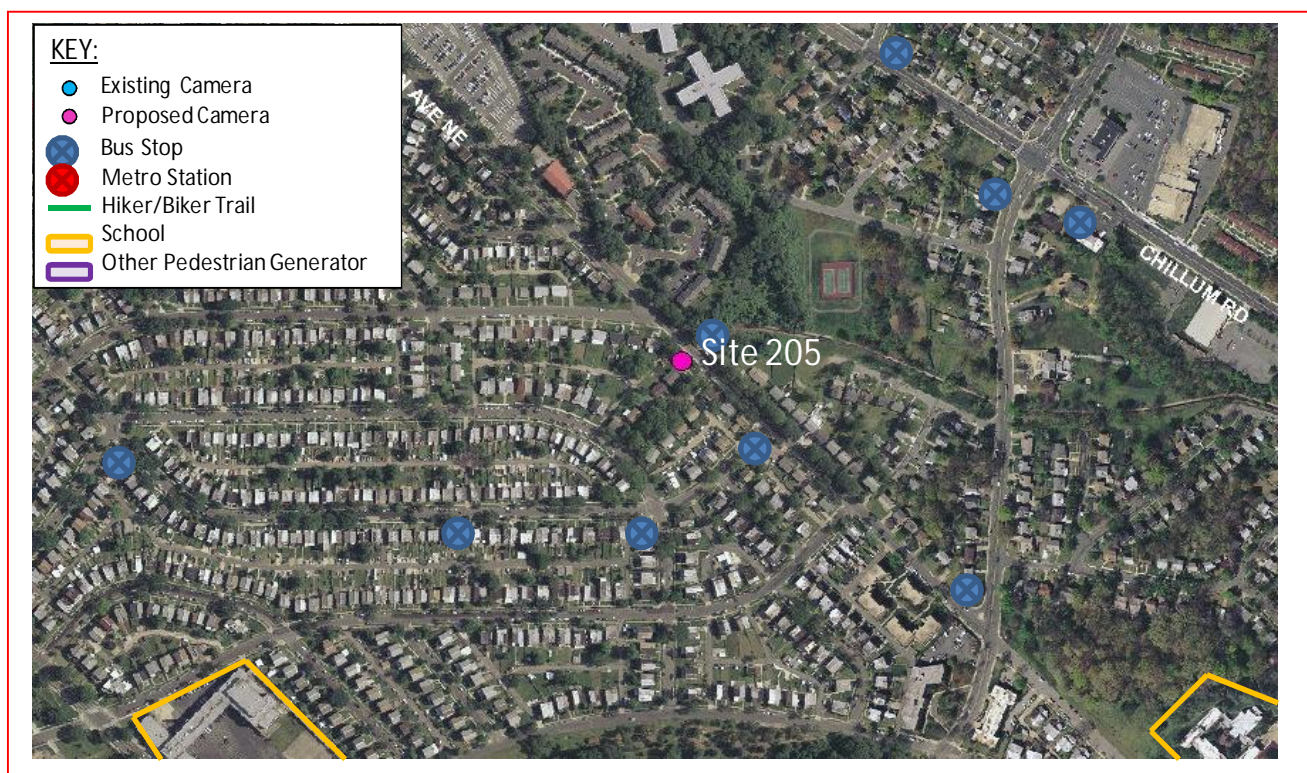
District Department of Transportation

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

### 5500 Block Eastern Avenue NE

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
4	407	5	5A	Proposed	5500 Block Eastern Avenue Northeast Southeast-bound



This *proposed* speed camera will be located in Ward 5 between at the 5500 block of Eastern Avenue Northeast in the southeast-bound direction. Eastern Avenue runs between 16<sup>th</sup> Street Northwest to the northwest and Galloway Street Northeast to the southeast. The posted speed limit is 25 MPH.

W5 - 260





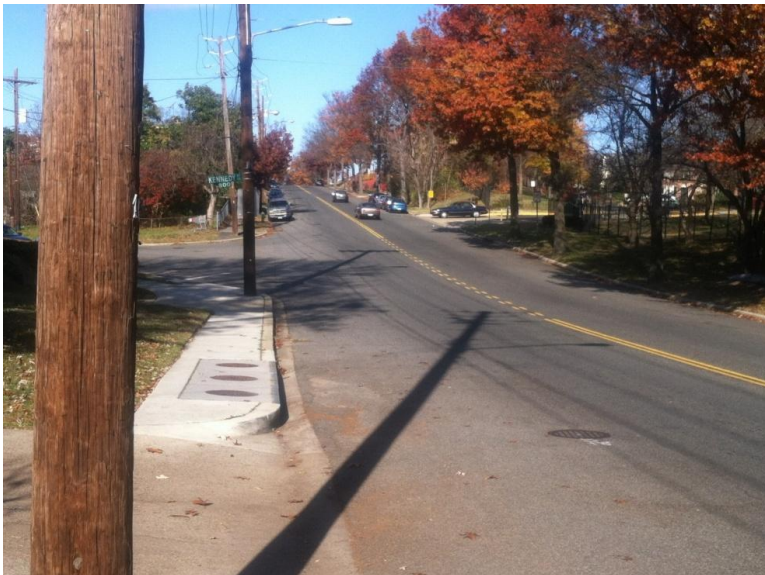
District Department of Transportation

5500 Block Eastern Avenue NE

## Field Assessment Summary

Eastern Avenue is assumed to run in the northwest-southeast direction, and is classified as a minor arterial. Eastern Avenue has one travel lane in each direction. This site has the following characteristics:

- This site is located in a residential area with houses and driveways on the west side of the street.
- There is sidewalk with curb, gutter and drainage inlets on the west side of the street.
- There is on-street parking on both sides of the street. The existing pavement is in good condition.
- There are two schools in the area: Backus Middle School and Catholic School Office.



Looking Northwest-bound

W5 - 261



District Department of Transportation

5500 Block Eastern Avenue NE



Looking Southeast-bound

## Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	11
85th Percentile Speed (MPH)	16
10 MPH Pace Speed	5-14
ADT	4,334

The mean speed and the 85<sup>th</sup> percentile speed are both lower than the posted speed limit at this location. The 85<sup>th</sup> percentile speed is 9 MPH lower 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 two crashes at this location. The two collision types were a Rear End and a Side Swipe.

W5 - 262



District Department of Transportation

5500 Block Eastern Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	2										
Fatal	0	0.0%	Clear	1	50.0%	Dry	1	50.0%	Day	0	0.0%
Injury	1	50.0%	Rain	1	50.0%	Wet	1	50.0%	Night	2	100.0%
Bus	0	0.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Truck	0	0.0%									

## Safety Nexus

This site presents the following safety considerations which may support the 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 – 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 is a residential area with houses and driveways on the west side of the street.
  - b. There are two schools in the area: Backus Campus and Catholic School Office.
  - 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.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, and the crash data analysis showed a low number of crashes, there is still a safety concern at this location. The residential area coupled with the proximity of the site to several schools and colleges provides a location with multiple pedestrian generators and multiple opportunities for vehicle-pedestrian conflicts. Due to the specific site characteristics, the proximity to schools, and the 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

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## 5500 block of Eastern Ave NE SEB Speed

SEB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Start	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/15/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
02:00	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
03:00	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
04:00	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
05:00	54	1	0	0	0	0	0	0	0	0	0	0	0	0	55
06:00	116	1	0	0	0	0	0	0	0	0	0	0	0	0	117
07:00	251	0	0	0	0	0	0	0	0	0	0	0	0	0	251
08:00	266	1	1	0	0	0	0	0	0	0	0	0	0	0	268
09:00	193	0	0	0	0	0	0	0	0	0	0	0	0	0	193
10:00	187	0	0	0	0	0	0	0	0	0	0	0	0	0	187
11:00	204	0	0	0	0	0	0	0	0	0	0	0	0	0	204
12 PM	223	1	0	0	0	0	0	0	0	0	0	0	0	0	224
13:00	227	0	0	0	0	0	0	0	0	0	0	0	0	0	227
14:00	256	0	0	0	0	0	0	0	0	0	0	0	0	0	256
15:00	262	0	1	0	0	0	0	0	0	0	0	0	0	0	263
16:00	246	15	1	0	0	0	0	0	0	0	0	0	0	0	262
17:00	137	89	5	2	0	0	0	0	0	0	0	0	0	0	233
18:00	84	115	48	8	1	0	0	0	0	0	0	0	0	0	256
19:00	91	86	69	20	1	0	0	0	0	0	0	0	0	0	267
20:00	106	89	57	27	4	0	1	0	0	0	0	0	0	0	284
21:00	148	102	55	14	1	0	0	0	0	0	0	0	0	0	320
22:00	74	36	24	22	24	6	1	0	0	0	0	0	0	0	187
23:00	1	2	4	18	23	12	1	2	0	0	0	0	0	0	63
Total	3183	538	265	111	54	18	3	2	0	0	0	0	0	0	4174

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## 5500 block of Eastern Ave NE SEB Speed

SEB															
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	4	2	10	25	75	35	9	0	0	0	0	0	0	0	160
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	4	2	10	25	75	35	9	0	0	0	0	0	0	0	160
Grand Total	3187	540	275	136	129	53	12	2	0	0	0	0	0	0	4334

15th Percentile : 4 MPH  
 50th Percentile : 9 MPH  
 85th Percentile : 16 MPH  
 95th Percentile : 24 MPH

Stats  
 Mean Speed(Average) : 11 MPH  
 10 MPH Pace Speed : 5-14 MPH  
 Number in Pace : 2899  
 Percent in Pace : 66.9%  
 Number of Vehicles > 25 MPH : 211  
 Percent of Vehicles > 25 MPH : 4.9%

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## 5500 block of Eastern Ave NE SEB 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	*	60	28	*	*	*	28	60
12:15	*	60	35	*	*	*	35	60
12:30	*	53	36	*	*	*	36	53
12:45	*	51	61	*	*	*	61	51
01:00	5	54	*	*	*	*	5	54
01:15	3	56	*	*	*	*	3	56
01:30	4	50	*	*	*	*	4	50
01:45	3	67	*	*	*	*	3	67
02:00	2	72	*	*	*	*	2	72
02:15	2	61	*	*	*	*	2	61
02:30	3	62	*	*	*	*	3	62
02:45	1	61	*	*	*	*	1	61
03:00	5	61	*	*	*	*	5	61
03:15	3	64	*	*	*	*	3	64
03:30	3	61	*	*	*	*	3	61
03:45	4	77	*	*	*	*	4	77
04:00	4	68	*	*	*	*	4	68
04:15	3	76	*	*	*	*	3	76
04:30	5	69	*	*	*	*	5	69
04:45	7	49	*	*	*	*	7	49
05:00	10	53	*	*	*	*	10	53
05:15	11	60	*	*	*	*	11	60
05:30	13	53	*	*	*	*	13	53
05:45	21	67	*	*	*	*	21	67
06:00	22	49	*	*	*	*	22	49
06:15	27	66	*	*	*	*	27	66
06:30	28	72	*	*	*	*	28	72
06:45	40	69	*	*	*	*	40	69
07:00	45	58	*	*	*	*	45	58
07:15	57	59	*	*	*	*	57	59
07:30	69	78	*	*	*	*	69	78
07:45	80	72	*	*	*	*	80	72
08:00	64	88	*	*	*	*	64	88
08:15	62	65	*	*	*	*	62	65
08:30	81	59	*	*	*	*	81	59
08:45	61	72	*	*	*	*	61	72
09:00	56	76	*	*	*	*	56	76
09:15	44	77	*	*	*	*	44	77
09:30	45	94	*	*	*	*	45	94
09:45	48	73	*	*	*	*	48	73
10:00	46	74	*	*	*	*	46	74
10:15	50	71	*	*	*	*	50	71
10:30	40	34	*	*	*	*	40	34
10:45	51	8	*	*	*	*	51	8
11:00	56	13	*	*	*	*	56	13
11:15	42	15	*	*	*	*	42	15
11:30	42	14	*	*	*	*	42	14
11:45	64	21	*	*	*	*	64	21
Total	1332	2842	160	0	0	0	1492	2842
Combined Total	4174		160		0		4334	
Peak	07:45	09:00	12:00				07:45	09:00
Vol.	287	320	160				287	320
P.H.F.	0.886	0.851	0.656				0.886	0.851
ADT		ADT 4,334	AADT 4,334					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** EASTERN AVE,NW,NE From KENNEDY ST,NE TO JAMAICA ST,NE

**Time Period Covered:** From 01/01/2010 To 12/31/2012 **Prepared By:** Rahul Jain

**Prepared Date:** 9/16/2013

Total Number of Accident:	2	<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:	0	0.0%	Fixed Object:	0	0.0%
Total Number of Injuries:	1	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	0	Rear End:	1	50.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	1	50.0%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	0	0.0%	Unspecified:	0	0.0%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	
07:30 ~ 09:30:				0	0.0%	Sunday:	
09:30 ~ 11:30:				0	0.0%	Monday:	
11:30 ~ 13:30:				0	0.0%	Tuesday:	
13:30 ~ 16:00:				0	0.0%	Wednesday:	
16:00 ~ 18:30:				0	0.0%	Thursday:	
18:30 ~ 07:30:				2	100.0%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				1	50.0%	Dry:	
Rain:				1	50.0%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				0	0.0%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				0	0.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				4	80.0%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				0	0.0%	PDO Collision:	
Taxi:				0	0.0%		
Minivan:				0	0.0%	<b>Light Condition</b>	
Police/Emergency Vehicle:				0	0.0%	Daylight:	
Motorcycle/Moped:				0	0.0%	Dawn/Dusk:	
Bicycle:				0	0.0%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				1	20.0%	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:				0	0.0%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				2	40.0%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				3	60.0%	Unspecified:	

1 Records are not approved as of 9/16/2013 7:53:46 AM