



District Department of Transportation

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

1000 Block Pennsylvania Avenue SE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	107	6	6B	Proposed	1000 Block Pennsylvania Ave Southeast, Southeast-bound



The *proposed* speed camera will be located in Ward 6 at the 1000 Block of Pennsylvania Avenue Southeast for the southeast-bound traffic. Pennsylvania Avenue runs between Independence Avenue Southeast to the northwest and Barney Circle Southeast and points east of the Anacostia River to the southeast. The posted speed limit is 30 MPH.

W6 - 252





District Department of Transportation

1000 Block Pennsylvania Avenue SE

Field Assessment Summary

Pennsylvania Avenue is assumed to run in a northwest to southeast direction and is classified as a principal arterial. Pennsylvania Ave has four travel lanes in each direction. This site has the following characteristics:

- The site is located in a residential area with retail stores.
- The roadway pavement is in fair condition with curb and gutter and sidewalks on both sides and a curbed grass median in the middle.
- There are 6 schools in the area: Hine Jr. High School, Tyler Elementary School, Cesar Chavez Public Charter Schools for Public Policy, Watkins Elementary School, International Graduate University and Payne Elementary School.
- There are several bus stops and one Metrorail Station in the area that generate pedestrian activity.



Looking Northwest

W6 - 253



District Department of Transportation

1000 Block Pennsylvania Avenue SE



Looking Southeast

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	17
85th Percentile Speed (MPH)	27
10 MPH Pace Speed	5-14
ADT	7,239

The mean speed is lower than the posted speed limit by 13 MPH and the 85th percentile speed is 3 MPH lower than the posted speed limit 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 33 crashes at this location. A breakdown of number of crashes by collision type can be found in the table on the next page. The most common types of crashes were Side Swiped (8 crashes), Right Angle (7 crashes), Rear End (6 crashes) and Left Turn (4 crashes). There were two (2 crashes) crashes where vehicular speeding was the contributing factor. Furthermore, the site experienced a high frequency (14 crashes) of injury-related crashes.

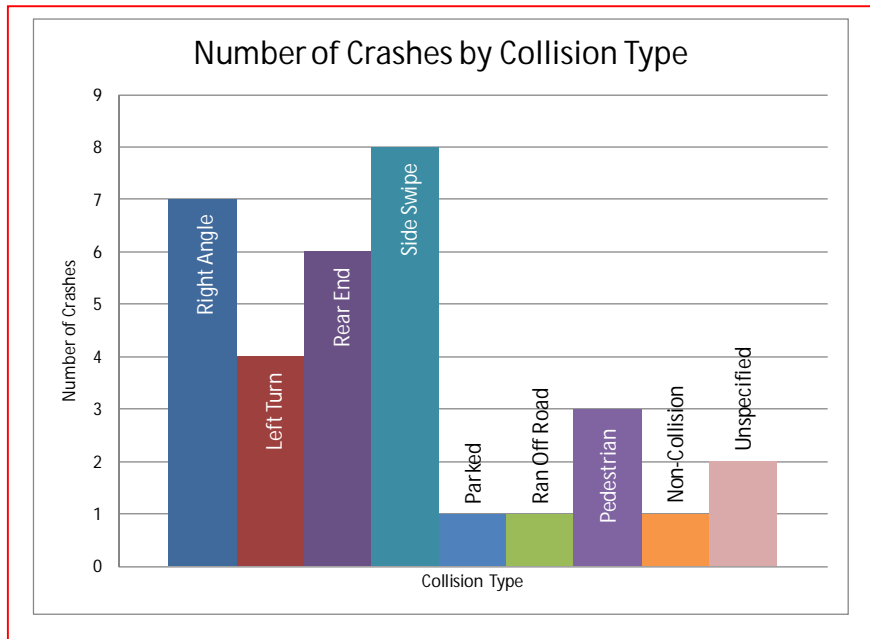
W6 - 254



District Department of Transportation

1000 Block Pennsylvania Avenue SE

Severity			Weather			Surface condition			Light Condition		
Total	33										
Fatal	0	0.0%	Clear	28	84.8%	Dry	29	87.9%	Day	25	75.8%
Injury	14	42.4%	Rain	4	12.1%	Wet	3	9.1%	Night	6	18.2%
Truck	7	21.2%	Snow	1	3.0%	Snow/Ice	1	3.0%			
Bus	5	15.2%									



The Pennsylvania 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)*¹.

Safety Nexus

This site presents the following safety considerations which may establish a 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.

¹ DDOT, *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*, pg. 80.



District Department of Transportation

1000 Block Pennsylvania Avenue SE

2. Crash Data – This location experienced a high frequency (14 crashes) of injury-related crashes. There were two (2) crashes where vehicular speeding was the contributing factor. The Pennsylvania 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. The site is located in a residential area with retail stores.
 - b. There are 6 schools in the area: Hine Jr. High School, Tyler Elementary School, Cesar Chavez Public Charter Schools for Public Policy, Watkins Elementary School, International Graduate University and Payne Elementary School.
 - c. There are several bus stops and one metro station in the area that generate pedestrian activity.

Although the speed data analysis revealed low travel speeds, due to the elevated number of 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.

W6 - 256

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1000 block of Pennsylvania Ave SE 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	
11/24/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	2	10	66	50	10	1	2	1	0	2	0	0	0	0	144
23:00	7	4	58	44	10	0	0	0	0	2	0	0	0	0	125
Total	9	14	124	94	20	1	2	1	0	4	0	0	0	0	269

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1000 block of Pennsylvania Ave SE SEB Speed

SEB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/25/13	1	3	44	24	4	1	1	0	0	0	0	0	0	0	78
01:00	2	1	22	11	3	1	0	0	0	0	0	0	0	0	40
02:00	1	0	6	10	3	0	0	0	0	0	0	0	0	0	20
03:00	2	3	15	10	1	0	0	1	0	0	0	0	0	0	32
04:00	2	3	22	10	2	0	0	0	0	0	0	0	0	0	39
05:00	1	1	42	23	14	4	4	1	2	2	0	0	0	0	94
06:00	47	10	50	53	24	13	2	1	3	3	1	0	1	1	209
07:00	97	45	94	88	22	3	0	0	0	0	0	0	0	0	349
08:00	135	47	121	88	16	3	0	0	0	0	0	0	0	0	410
09:00	156	54	116	91	23	1	0	0	0	0	0	0	0	0	441
10:00	132	33	100	93	17	3	0	0	0	0	0	0	0	0	378
11:00	136	23	121	113	28	5	1	0	0	0	0	0	1	0	428
12 PM	146	35	135	117	28	3	0	0	0	0	0	0	0	0	464
13:00	147	18	109	143	78	17	2	0	0	0	0	0	0	0	514
14:00	199	40	113	161	58	15	4	0	0	0	0	0	0	0	590
15:00	226	82	162	88	22	3	0	0	0	0	0	0	0	0	583
16:00	225	87	143	60	14	1	0	0	0	0	0	0	0	0	530
17:00	304	57	65	22	6	0	0	0	0	0	0	0	0	0	454
18:00	262	65	133	74	15	2	0	0	0	0	0	0	0	0	551
19:00	118	38	106	57	9	1	0	0	0	0	0	0	0	0	329
20:00	78	19	84	43	4	0	0	0	0	0	0	0	0	0	228
21:00	78	7	70	39	12	3	0	0	0	0	0	0	0	0	209
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	2495	671	1873	1418	403	79	14	3	5	5	1	0	2	1	6970
Grand Total	2504	685	1997	1512	423	80	16	4	5	9	1	0	2	1	7239

15th Percentile : 6 MPH
 50th Percentile : 15 MPH
 85th Percentile : 27 MPH
 95th Percentile : 31 MPH

Stats
 Mean Speed(Average) : 17 MPH
 10 MPH Pace Speed : 5-14 MPH
 Number in Pace : 2922
 Percent in Pace : 40.4%
 Number of Vehicles > 30 MPH : 506
 Percent of Vehicles > 30 MPH : 7.0%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

1000 block of Pennsylvania Ave SE SEB Volume

Start Time	Sun	24-Nov-13	Mon	25-Nov-13	Tue	26-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	*	19	121	*	*	19	121
12:15	*	*	28	114	*	*	28	114
12:30	*	*	16	113	*	*	16	113
12:45	*	*	15	116	*	*	15	116
01:00	*	*	14	133	*	*	14	133
01:15	*	*	11	108	*	*	11	108
01:30	*	*	5	141	*	*	5	141
01:45	*	*	10	132	*	*	10	132
02:00	*	*	5	137	*	*	5	137
02:15	*	*	6	154	*	*	6	154
02:30	*	*	6	148	*	*	6	148
02:45	*	*	3	151	*	*	3	151
03:00	*	*	6	127	*	*	6	127
03:15	*	*	6	166	*	*	6	166
03:30	*	*	8	146	*	*	8	146
03:45	*	*	12	144	*	*	12	144
04:00	*	*	8	139	*	*	8	139
04:15	*	*	9	143	*	*	9	143
04:30	*	*	10	126	*	*	10	126
04:45	*	*	12	122	*	*	12	122
05:00	*	*	20	159	*	*	20	159
05:15	*	*	17	120	*	*	17	120
05:30	*	*	24	72	*	*	24	72
05:45	*	*	33	103	*	*	33	103
06:00	*	*	44	116	*	*	44	116
06:15	*	*	44	146	*	*	44	146
06:30	*	*	57	142	*	*	57	142
06:45	*	*	64	147	*	*	64	147
07:00	*	*	92	94	*	*	92	94
07:15	*	*	79	97	*	*	79	97
07:30	*	*	82	77	*	*	82	77
07:45	*	*	96	61	*	*	96	61
08:00	*	*	97	60	*	*	97	60
08:15	*	*	98	52	*	*	98	52
08:30	*	*	102	58	*	*	102	58
08:45	*	*	113	58	*	*	113	58
09:00	*	*	114	45	*	*	114	45
09:15	*	*	121	61	*	*	121	61
09:30	*	*	93	45	*	*	93	45
09:45	*	*	113	58	*	*	113	58
10:00	*	36	91	*	*	*	91	36
10:15	*	34	94	*	*	*	94	34
10:30	*	40	94	*	*	*	94	40
10:45	*	34	99	*	*	*	99	34
11:00	*	41	99	*	*	*	99	41
11:15	*	25	102	*	*	*	102	25
11:30	*	28	108	*	*	*	108	28
11:45	*	31	119	*	*	*	119	31
Total	0	269	2518	4452	0	0	2518	4721
Combined Total	269		6970		0		7239	
Peak Vol.	10:15 149		08:30 450		03:15 595		08:30 450	
P.H.F.	0.909		0.930		0.896		0.930	
ADT	ADT 7,239		AADT 7,239					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: PENNSYLVANIA AVE,NW,SE From NINTH ST,SE TO E ST,SE

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:	33	Right Angle:	7	21.2%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	4	12.1%	Ran Off Road:	1	3.0%
Total Number of Injuries:	16	Right Turn:	0	0.0%	Ped. Involved:	3	9.1%
Total Number of Disabling Injuries:	0	Rear End:	6	18.2%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	1	Side Swiped:	8	24.2%	Non Collision:	1	3.0%
Total Number of Pedestrians Involved:	4	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	1	Parked:	1	3.0%	Unspecified:	2	6.1%
Total Number of Motorcycles Involved:	1						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	5	15.2%	Sunday:	0	0.0%
09:30 ~ 11:30:	5	15.2%	Monday:	3	9.1%
11:30 ~ 13:30:	4	12.1%	Tuesday:	3	9.1%
13:30 ~ 16:00:	2	6.1%	Wednesday:	4	12.1%
16:00 ~18:30:	10	30.3%	Thursday:	6	18.2%
18:30 ~ 07:30:	7	21.2%	Friday:	9	27.3%
Unspecified:	0	0.0%	Saturday:	8	24.2%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	28	84.8%	Dry:	29	87.9%
Rain:	4	12.1%	Wet:	3	9.1%
Snow:	1	3.0%	Snow/Ice:	1	3.0%
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:	0	0.0%	Unspecified:	0	0.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	38	64.4%	Fatal Collision:	0	0.0%
Bus:	5	8.5%	Injury Collision:	14	42.4%
Truck:	7	11.9%	PDO Collision:	19	57.6%
Taxi:	4	6.8%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	1	1.7%	Daylight:	25	75.8%
Motorcycle/Moped:	1	1.7%	Dawn/Dusk:	2	6.1%
Bicycle:	1	1.7%	Dark(Lighted):	5	15.2%
Fixed Object:	0	0.0%	Dark(Not Lighted):	1	3.0%
Unspecified:	2	3.4%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	2	3.4%	In Crosswalk with Signal:	1	25.0%
Driver: Alcohol/Drug:	0	0.0%	In Crosswalk against Signal:	1	25.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	1	25.0%
Driver: Others:	14	23.7%	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:	43	72.9%	Unspecified:	1	25.0%

18 Records are not approved as of 9/15/2013 10:58:12 AM