



District Department of Transportation

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

### 1300 Block New York Avenue NE

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	505	5	5B	Proposed	1300 Block New York Avenue Northeast Southwest-bound



This *proposed* speed camera will be located in Ward 5 at the 1300 block of New York Avenue Northeast in the southwest-bound direction. New York Avenue runs between Baltimore-Washington Parkway to the east and 15<sup>th</sup> Street Northwest to the west. The posted speed limit is 35 MPH.

W5 - 482





District Department of Transportation

1300 Block New York Avenue NE

## Field Assessment Summary

New York Avenue is assumed to run in the east-west direction, and is classified as principal arterial. New York Avenue has three travel lanes in each direction. This site has the following characteristics:

- This is an industrial area.
- There is one school in the area: Crummell School.
- There is a brick median and sidewalk on both sides of the street.
- There is a bay for parking southwest-bound by Fenwick Street.
- There are traffic signals with pedestrian signals and crosswalks at Kendall Street and Fenwick Street.
- The pavement is in fair condition and there is curb and gutter with drainage inlets.



Looking Northeast-bound

W5 - 483





District Department of Transportation

1300 Block New York Avenue NE



Looking Southwest-bound

## Speed Data Analysis

Posted Speed Limit (MPH)	35
Mean Speed (MPH)	27
85th Percentile Speed (MPH)	42
10 MPH Pace Speed	33-42
ADT	17,801

The mean speed is lower than the posted speed limit by 8 MPH and the 85<sup>th</sup> percentile speed is higher than the posted speed by 7 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 137 crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common types of crashes at this location were rear End (74), Side Swiped (24), Left Turn (9), Right Angle (7) and Pedestrian Involved (6). This site experienced a high frequency (41 crashes) of injury-related crashes. Furthermore, there were nine (9) crashes where vehicular speeding was the contributing factor at this location.

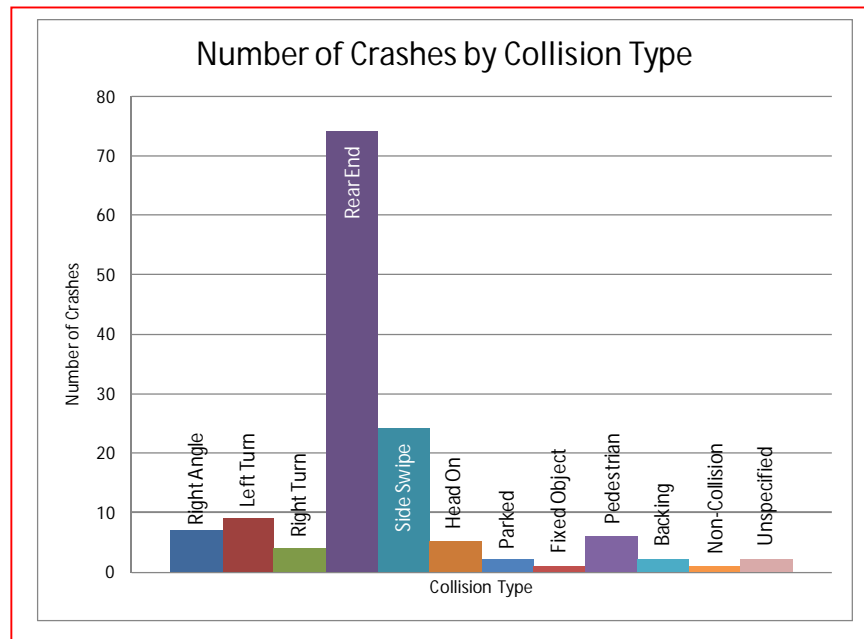
W5 - 484



District Department of Transportation

1300 Block New York Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	137										
Fatal	0	0.0%	Clear	124	90.5%	Dry	121	88.3%	Day	67	48.9%
Injury	41	29.9%	Rain	9	6.6%	Wet	11	8.0%	Night	62	45.3%
Truck	24	17.5%	Fog/Mist	1	0.7%	Repairing	2	1.5%			
Bus	11	8.0%									



There were an elevated number of speed-related crashes at this location, including rear end and side swipe crashes. The AASHTO Highway Safety Manual lists “assuming the lead driver will go through a green or yellow light, but the lead driver stops” and “changing lanes to avoid a slowing or stopped vehicle”<sup>1</sup> as two errors leading to rear-end and sideswipe crashes. Both of these errors can be decreased with a decrease in travel speed. There were also a high number in pedestrian crashes at this location. “A pedestrian hit at 40 mph has an 85 percent chance of being killed; at 30 mph the risk is reduced to 45 percent; at 20 mph the risk is reduced to 5 percent.”<sup>2</sup>

The New York 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-*

<sup>1</sup> AASHTO Highway Safety Manual, 1<sup>st</sup> Edition, 2010; Volume 1, page 2-13

<sup>2</sup> AASHTO Highway Safety Manual, 1<sup>st</sup> Edition, 2010; Volume 1, page 2-14



District Department of Transportation

1300 Block New York Avenue NE

2011)<sup>3</sup>. This site is located between two of the top five percent high accident locations in the District from 2010 to 2012: New York Avenue NE and Montana Avenue NE; and Fairview Avenue and New York Avenue. <sup>4</sup>

## 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 at this location.
2. Crash Data – There was an elevated number of speed related crashes at this location, including rear end and side swipe collisions, as well as experienced a high frequency (41 crashes) of injury-related crashes. The New York 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. There is one school in the area: Crummell School.
  - b. There are multiple bus stops in the area which generate pedestrian activity.

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

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<sup>3</sup> DDOT, *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*, pg. 80.

<sup>4</sup> DDOT, *Top 5% High Accident Locations Map for 2010-2012*

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

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

## 1300 Block of New York Avenue NE SWB Speed

SWB

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
11/05/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	8	0	1	5	9	24	41	42	24	11	2	0	0	0	167
04:00	25	2	8	19	21	88	146	156	75	23	4	1	1	0	569
05:00	192	20	45	101	174	246	181	73	24	4	1	0	0	0	1061
06:00	198	17	56	115	227	318	220	95	21	3	3	0	0	0	1273
07:00	214	17	39	127	239	264	216	120	50	9	1	1	0	0	1297
08:00	189	26	68	134	271	308	249	100	22	7	2	0	0	0	1376
09:00	184	16	52	128	283	309	277	87	20	12	1	2	0	0	1371
10:00	241	67	108	114	119	107	62	22	8	0	1	0	0	0	849
11:00	206	54	100	143	167	151	91	46	6	1	0	0	0	0	965
12 PM	159	40	54	125	178	226	143	72	17	6	2	0	0	0	1022
13:00	151	46	87	128	124	192	125	60	15	11	6	0	0	0	945
14:00	248	55	114	89	108	110	62	44	17	4	2	0	0	0	853
15:00	249	80	101	73	83	60	35	9	3	2	1	1	0	0	697
16:00	265	71	97	70	81	95	34	14	7	0	0	1	0	0	735
17:00	286	59	74	99	97	70	34	11	4	1	0	1	0	0	736
18:00	254	57	75	98	84	62	37	10	3	0	1	0	0	0	681
19:00	167	42	70	90	75	88	53	41	13	4	1	1	0	0	645
20:00	135	43	58	59	64	70	64	25	15	8	4	0	0	0	545
21:00	109	34	54	42	77	89	62	28	18	7	3	0	0	0	523
22:00	110	43	52	62	62	71	49	29	20	9	1	3	0	0	511
23:00	55	24	41	45	55	46	54	25	15	6	1	1	1	0	369
Total	3645	813	1354	1866	2598	2994	2235	1109	397	128	37	12	2	0	17190

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MOUNT AIRY, MD 21771

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## 1300 Block of New York Avenue NE SWB Speed

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
11/06/13	7	1	7	20	22	39	66	60	28	5	1	0	0	0	256
01:00	5	1	2	5	16	31	36	25	11	5	2	1	0	0	140
02:00	3	0	1	4	12	26	34	27	9	4	0	0	0	0	120
03:00	4	0	4	2	9	15	14	29	11	6	1	0	0	0	95
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Total</b>	<b>19</b>	<b>2</b>	<b>14</b>	<b>31</b>	<b>59</b>	<b>111</b>	<b>150</b>	<b>141</b>	<b>59</b>	<b>20</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>611</b>
<b>Grand Total</b>	<b>3664</b>	<b>815</b>	<b>1368</b>	<b>1897</b>	<b>2657</b>	<b>3105</b>	<b>2385</b>	<b>1250</b>	<b>456</b>	<b>148</b>	<b>41</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>17801</b>

15th Percentile : 7 MPH  
 50th Percentile : 28 MPH  
 85th Percentile : 42 MPH  
 95th Percentile : 48 MPH

Stats  
 Mean Speed(Average) : 27 MPH  
 10 MPH Pace Speed : 33-42 MPH  
 Number in Pace : 4761  
 Percent in Pace : 26.7%  
 Number of Vehicles > 35 MPH : 6186  
 Percent of Vehicles > 35 MPH : 34.7%

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## 1300 Block of New York Avenue NE SWB Speed

Start Time	Tue 05-Nov-13		Wed 06-Nov-13		Thu 07-Nov-13		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	269	70	*	*	*	70	269
12:15	*	248	78	*	*	*	78	248
12:30	*	266	58	*	*	*	58	266
12:45	*	239	50	*	*	*	50	239
01:00	*	233	38	*	*	*	38	233
01:15	*	269	29	*	*	*	29	269
01:30	*	207	35	*	*	*	35	207
01:45	*	236	38	*	*	*	38	236
02:00	*	257	26	*	*	*	26	257
02:15	*	234	27	*	*	*	27	234
02:30	*	183	37	*	*	*	37	183
02:45	*	179	30	*	*	*	30	179
03:00	*	147	38	*	*	*	38	147
03:15	*	185	57	*	*	*	57	185
03:30	64	195	*	*	*	*	64	195
03:45	103	170	*	*	*	*	103	170
04:00	96	182	*	*	*	*	96	182
04:15	121	193	*	*	*	*	121	193
04:30	157	184	*	*	*	*	157	184
04:45	195	176	*	*	*	*	195	176
05:00	228	198	*	*	*	*	228	198
05:15	222	182	*	*	*	*	222	182
05:30	292	178	*	*	*	*	292	178
05:45	319	178	*	*	*	*	319	178
06:00	328	153	*	*	*	*	328	153
06:15	321	163	*	*	*	*	321	163
06:30	353	184	*	*	*	*	353	184
06:45	271	181	*	*	*	*	271	181
07:00	241	187	*	*	*	*	241	187
07:15	351	151	*	*	*	*	351	151
07:30	352	148	*	*	*	*	352	148
07:45	353	159	*	*	*	*	353	159
08:00	366	126	*	*	*	*	366	126
08:15	358	164	*	*	*	*	358	164
08:30	388	125	*	*	*	*	388	125
08:45	264	130	*	*	*	*	264	130
09:00	316	117	*	*	*	*	316	117
09:15	380	145	*	*	*	*	380	145
09:30	342	123	*	*	*	*	342	123
09:45	333	138	*	*	*	*	333	138
10:00	213	117	*	*	*	*	213	117
10:15	193	140	*	*	*	*	193	140
10:30	208	119	*	*	*	*	208	119
10:45	235	135	*	*	*	*	235	135
11:00	247	107	*	*	*	*	247	107
11:15	260	92	*	*	*	*	260	92
11:30	233	77	*	*	*	*	233	77
11:45	225	93	*	*	*	*	225	93
Total	8928	8262	611	0	0	0	9539	8262
Combined Total	17190		611		0		17801	
Peak	07:45	12:00	12:00				07:45	12:00
Vol.	1465	1022	256				1465	1022
P.H.F.	0.944	0.950	0.821				0.944	0.950
ADT	ADT 17,801		AADT 17,801					



DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** NEW YORK AVE,NW,NE From SIXTEENTH ST,NE TO KENDALL 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:	137	<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:	7	5.1%	Fixed Object:	1	0.7%	
Total Number of Injuries:	64	Left Turn:	9	6.6%	Ran Off Road:	0	0.0%	
Total Number of Disabling Injuries:	3	Right Turn:	4	2.9%	Ped. Involved:	6	4.4%	
Total Number of NonDisabling Injuries:	4	Rear End:	74	54.0%	Backing:	2	1.5%	
Total Number of Pedestrians Involved:	6	Side Swiped:	24	17.5%	Non Collision:	1	0.7%	
Total Number of Bicycles Involved:	2	Head On:	5	3.6%	Under/Over Ride:	0	0.0%	
Total Number of Motorcycles Involved:	5	Parked:	2	1.5%	Unspecified:	2	1.5%	
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>		
07:30 ~ 09:30:				8	5.8%	Sunday:		
09:30 ~ 11:30:				14	10.2%	Monday:		
11:30 ~ 13:30:				6	4.4%	Tuesday:		
13:30 ~ 16:00:				20	14.6%	Wednesday:		
16:00 ~ 18:30:				16	11.7%	Thursday:		
18:30 ~ 07:30:				73	53.3%	Friday:		
Unspecified:				0	0.0%	Saturday:		
28				20.4%	17		12.4%	
12				8.8%	15		10.9%	
15				10.9%	22		16.1%	
28				20.4%				
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>		
Clear:				124	90.5%	Dry:		
Rain:				9	6.6%	Wet:		
Snow:				0	0.0%	Snow/Ice:		
Sleet/Hail:				0	0.0%	Slush:		
Fog/Mist:				1	0.7%	Water/Sand:		
Crosswind/Blowing Sand:				0	0.0%	Repairing:		
Unspecified:				3	2.2%	Unspecified:		
121				88.3%	11		8.0%	
0				0.0%	0		0.0%	
0				0.0%	0		0.0%	
0				0.0%	0		0.0%	
2				1.5%	3		2.2%	
0				0.0%				
3				2.2%				
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>		
Passenger Car:				206	74.6%	Fatal Collision:		
Bus:				11	4.0%	Injury Collision:		
Truck:				24	8.7%	PDO Collision:		
Taxi:				9	3.3%	96		70.1%
Minivan:				0	0.0%	<b>Light Condition</b>		
Police/Emergency Vehicle:				2	0.7%	Daylight:		
Motorcycle/Moped:				5	1.8%	Dawn/Dusk:		
Bicycle:				2	0.7%	Dark(Lighted):		
Fixed Object:				0	0.0%	Dark(Not Lighted):		
Unspecified:				17	6.2%	Dark(Unknown Lighting):		
67				48.9%	2		1.5%	
6				4.4%	0		0.0%	
61				44.5%	0		0.0%	
1				0.7%	0		0.0%	
0				0.0%	1		16.7%	
0				0.0%	0		0.0%	
4				66.7%	0		0.0%	
0				0.0%	1		16.7%	
0				0.0%				
209				75.7%				
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>		
Driver: Speed:				9	3.3%	In Crosswalk with Signal:		
Driver: Alcohol/Drug:				3	1.1%	In Crosswalk against Signal:		
Driver: Electronic Device:				1	0.4%	In Crosswalk no Signal:		
Driver: Others:				51	18.5%	In Unmarked Crosswalk:		
Vehicle:				2	0.7%	Not in Crosswalk:		
Roadway:				1	0.4%	From Between Parked Cars:		
Unspecified:				209	75.7%	Unspecified:		
0				0.0%	0		0.0%	
1				16.7%	0		0.0%	
0				0.0%	0		0.0%	
0				0.0%	4		66.7%	
0				0.0%	0		0.0%	
1				16.7%				

91 Records are not approved as of 9/16/2013 9:56:55 AM