



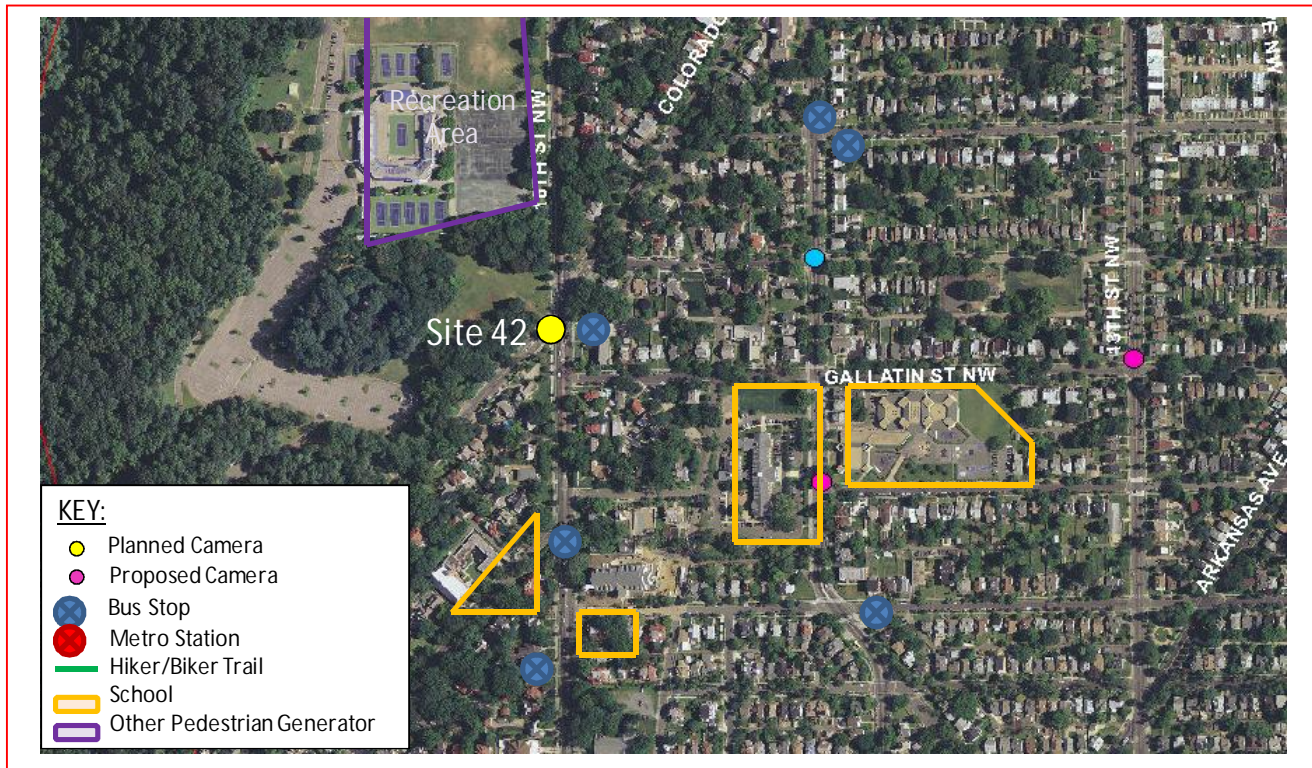
District Department of Transportation

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

16th Street S/B at Colorado Avenue NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
4	403/404	4	4A/4C	Planned	16 th St Southbound at Colorado Avenue Northwest



The *planned* speed camera will be located in Ward 4 at the intersection of 16th Street and Colorado Avenue Northwest in the southbound direction. 16th street runs from Eastern Avenue Northwest in the north to H Street Northwest in the south. The posted speed limit is 30 MPH.

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16th Street S/B at Colorado Avenue NW

Field Assessment Summary

16th Street is assumed to run in the North-South direction and is classified as a principal arterial. Colorado Avenue is assumed to run in the East-West direction and is classified as a collector. 16th street has two through lanes and one left turn lane in each direction. Colorado Avenue has one through lane and one left turn lane in each direction. This site has the following characteristics:

- This site is located in a residential area with houses, churches, driveways, and sidewalk on both sides of all legs.
- There is on-street parking on the north side of the east leg. There is an existing traffic signal and crosswalks with pedestrian signals.
- There are five schools in the area: The Kingsbury Center, West Education Center, Parkmont School, The British School of Washington, and Washington Latin Public Charter School.
- There is one other pedestrian generator in the area: Brightwood Recreation Center.
- There are bus stops on both sides on the north leg, on the south side of the east leg, and in the surrounding area.



Looking Northbound



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16th Street S/B at Colorado Avenue NW



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	17
85th Percentile Speed (MPH)	21
10 MPH Pace Speed	13-22 MPH
ADT	11,841

Both the Mean Speed and 85th Percentile Speed are lower than the posted speed limit at this site. The 85th 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 28 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page.

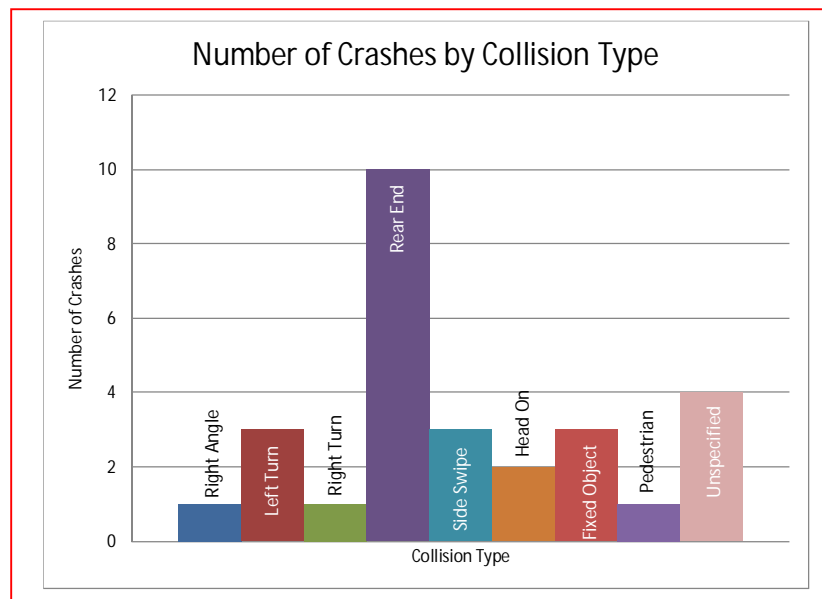
The most common type of crash at this location was Rear End with 10 crashes. The other collision types had less than four crashes or less each. The location experiences high frequency of injury-related crashes.

W4 - 179



16th Street S/B at Colorado Avenue NW

Severity			Weather			Surface condition			Light Condition		
Total	28										
Fatal	1	3.6%	Clear	21	75.0%	Dry	20	71.4%	Day	18	64.3%
Injury	11	39.3%	Rain	5	17.9%	Wet	6	21.4%	Night	6	21.4%
Bus	4	14.3%	Fog/Mist	0	0.0%	Snow/Ice	0	0.0%			
Truck	1	3.6%									



The 16th Street 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 much lower than the posted speed limit.
2. Crash Data – There were an elevated number of speed-related and injury-related crashes at this location. The 16th Street 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. This site is located in a residential area with houses and driveways on both sides of the street.

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



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16th Street S/B at Colorado Avenue NW

- b. There are five schools in this area: The Kingsbury Center, West Education Center, Parkmont School, The British School of Washington, and Washington Latin Public Charter School.
- c. There is one recreational facility in this area: Brightwood Recreation Center.
- d. There is on-street parking on one leg of this intersection.
- e. There are multiple bus stops in the area which generate pedestrian activity.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, due to the elevated number of speed-related and injury-related crashes, the specific site characteristics of a residential area, 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

www.sammateng.com

16th St SB at Colorado Ave NW Speed

SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/09/13	9	90	84	3	0	0	0	0	0	0	0	0	0	0	186
01:00	12	42	46	1	0	0	0	0	0	0	0	0	0	0	101
02:00	4	44	32	0	0	0	0	0	0	0	0	0	0	0	80
03:00	4	38	27	2	0	0	0	0	0	0	0	0	0	0	71
04:00	11	45	50	1	0	0	0	0	0	0	0	0	0	0	107
05:00	9	95	103	2	0	0	0	0	0	0	0	0	0	0	209
06:00	16	105	233	5	0	0	0	0	0	0	0	0	0	0	359
07:00	34	164	240	3	0	0	0	0	0	0	0	0	0	0	441
08:00	62	248	323	7	0	0	0	0	0	0	0	0	0	0	640
09:00	144	473	115	2	0	0	0	0	0	0	0	0	0	0	734
10:00	112	560	102	0	0	0	0	0	0	0	0	0	0	0	774
11:00	173	520	65	0	0	0	0	0	0	0	0	0	0	0	758
12 PM	164	559	73	3	0	0	0	0	0	0	0	0	0	0	799
13:00	113	535	76	2	0	0	0	0	0	0	0	0	0	0	726
14:00	77	399	252	9	1	0	0	0	0	0	0	0	0	0	738
15:00	34	249	328	17	0	0	0	0	0	0	0	0	0	0	628
16:00	30	339	300	11	0	0	0	0	0	0	0	0	0	0	680
17:00	37	395	257	6	0	0	0	0	0	0	0	0	0	0	695
18:00	47	376	256	6	0	0	0	0	0	0	0	0	0	0	685
19:00	19	387	177	5	0	0	0	0	0	0	0	0	0	0	588
20:00	25	328	137	1	0	0	0	0	0	0	0	0	0	0	491
21:00	21	276	181	3	0	0	0	0	0	0	0	0	0	0	481
22:00	30	271	147	2	0	0	0	0	0	0	0	0	0	0	450
23:00	26	254	138	4	0	0	0	0	0	0	0	0	0	0	422
Total	1213	6792	3742	95	1	0	0	0	0	0	0	0	0	0	11843
Grand Total	1213	6792	3742	95	1	0	0	0	0	0	0	0	0	0	11843

15th Percentile : 10 MPH
 50th Percentile : 16 MPH
 85th Percentile : 21 MPH
 95th Percentile : 24 MPH

Stats
 Mean Speed(Average) : 17 MPH
 10 MPH Pace Speed : 13-22 MPH
 Number in Pace : 7811
 Percent in Pace : 66.0%
 Number of Vehicles > 30 MPH : 9
 Percent of Vehicles > 30 MPH : 0.1%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

16th St SB at Colorado Ave NW Volume

Start Time	09-Nov-13		10-Nov-13		11-Nov-13		Daily Average	
	Sat A.M.	P.M.	Sun A.M.	P.M.	Mon A.M.	P.M.	A.M.	P.M.
12:00	44	193	*	*	*	*	44	193
12:15	48	222	*	*	*	*	48	222
12:30	49	190	*	*	*	*	49	190
12:45	45	194	*	*	*	*	45	194
01:00	33	186	*	*	*	*	33	186
01:15	19	187	*	*	*	*	19	187
01:30	23	163	*	*	*	*	23	163
01:45	26	190	*	*	*	*	26	190
02:00	26	191	*	*	*	*	26	191
02:15	16	197	*	*	*	*	16	197
02:30	20	194	*	*	*	*	20	194
02:45	18	156	*	*	*	*	18	156
03:00	20	169	*	*	*	*	20	169
03:15	21	171	*	*	*	*	21	171
03:30	14	138	*	*	*	*	14	138
03:45	16	150	*	*	*	*	16	150
04:00	17	166	*	*	*	*	17	166
04:15	28	160	*	*	*	*	28	160
04:30	40	169	*	*	*	*	40	169
04:45	22	185	*	*	*	*	22	185
05:00	28	180	*	*	*	*	28	180
05:15	44	164	*	*	*	*	44	164
05:30	77	197	*	*	*	*	77	197
05:45	60	154	*	*	*	*	60	154
06:00	68	204	*	*	*	*	68	204
06:15	81	167	*	*	*	*	81	167
06:30	102	138	*	*	*	*	102	138
06:45	108	176	*	*	*	*	108	176
07:00	76	170	*	*	*	*	76	170
07:15	100	161	*	*	*	*	100	161
07:30	122	139	*	*	*	*	122	139
07:45	143	118	*	*	*	*	143	118
08:00	142	129	*	*	*	*	142	129
08:15	157	110	*	*	*	*	157	110
08:30	170	112	*	*	*	*	170	112
08:45	171	140	*	*	*	*	171	140
09:00	185	117	*	*	*	*	185	117
09:15	176	124	*	*	*	*	176	124
09:30	188	112	*	*	*	*	188	112
09:45	185	128	*	*	*	*	185	128
10:00	188	110	*	*	*	*	188	110
10:15	200	128	*	*	*	*	200	128
10:30	209	100	*	*	*	*	209	100
10:45	177	112	*	*	*	*	177	112
11:00	201	112	*	*	*	*	201	112
11:15	195	100	*	*	*	*	195	100
11:30	181	113	*	*	*	*	181	113
11:45	181	97	*	*	*	*	181	97
Total	4460	7383	0	0	0	0	4460	7383
Combined Total	11843		0		0		11843	
Peak	10:15	12:00					10:15	12:00
Vol.	787	799					787	799
P.H.F.	0.941	0.900					0.941	0.900
ADT	ADT 11,843		AADT 11,843					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: 16TH ST,NW From KENNEDY ST,NW TO GALLATIN ST,NW

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

Prepared Date: 10/6/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	28	Right Angle:	1	3.6%	Fixed Object:	3	10.7%
Total Number of Fatalities:	1	Left Turn:	3	10.7%	Ran Off Road:	0	0.0%
Total Number of Injuries:	11	Right Turn:	1	3.6%	Ped. Involved:	1	3.6%
Total Number of Disabling Injuries:	0	Rear End:	10	35.7%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	2	Side Swiped:	3	10.7%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	2	7.1%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	1	Parked:	0	0.0%	Unspecified:	4	14.3%
Total Number of Motorcycles Involved:	1						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	2	7.1%	Sunday:	7	25.0%
09:30 ~ 11:30:	1	3.6%	Monday:	2	7.1%
11:30 ~ 13:30:	3	10.7%	Tuesday:	0	0.0%
13:30 ~ 16:00:	9	32.1%	Wednesday:	4	14.3%
16:00 ~18:30:	4	14.3%	Thursday:	3	10.7%
18:30 ~ 07:30:	9	32.1%	Friday:	4	14.3%
Unspecified:	0	0.0%	Saturday:	8	28.6%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	21	75.0%	Dry:	20	71.4%
Rain:	5	17.9%	Wet:	6	21.4%
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	7.1%	Unspecified:	2	7.1%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	44	81.5%	Fatal Collision:	1	3.6%
Bus:	4	7.4%	Injury Collision:	11	39.3%
Truck:	1	1.9%	PDO Collision:	16	57.1%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	0	0.0%	Daylight:	18	64.3%
Motorcycle/Moped:	1	1.9%	Dawn/Dusk:	1	3.6%
Bicycle:	1	1.9%	Dark(Lighted):	6	21.4%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	3	5.6%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	3	10.7%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	2	3.7%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	1	1.9%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	16	29.6%	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:	35	64.8%	Unspecified:	0	0.0%

19 Records are not approved as of 10/6/2013 3:12:32 PM