



District Department of Transportation

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

2800 Block Bladensburg Road NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	503	5	5A	Proposed	2800 Block Bladensburg Road Northeast Southwest bound



This *proposed* speed camera will be located in Ward 5 between on block 2800 of Bladensburg Road Northeast in the southwest bound direction. Bladensburg Road runs between Fort Lincoln Drive to the northeast and Benning Road Northeast to the southwest. The posted speed limit is 30 MPH.

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District Department of Transportation

2800 Block Bladensburg Road NE

Field Assessment Summary

Bladensburg Road is assumed to run in the northeast-southwest direction, and is classified as a minor arterial. Bladensburg Road has three travel lanes in each direction. This site has the following characteristics:

- This is a residential and commercial area with apartments and businesses.
- There are two schools in the area: Marshall Elementary School and Lincoln Elementary School. Fort Lincoln Park is also in the area.
- There is a grassy median with a break for turns at Yost Place and one other break.
- There is sidewalk and on-street parking on both sides of the street.
- There is a crosswalk at Central Avenue and a traffic signal with pedestrian signals and crosswalks at South Dakota Avenue.
- The pavement is in good condition and there is curb and gutter with drainage inlets.
- There are bus stops in both directions at South Dakota Avenue.



Looking Southwest-bound

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District Department of Transportation

2800 Block Bladensburg Road NE



Looking Southwest-bound

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	16
85th Percentile Speed (MPH)	23
10 MPH Pace Speed	13-22
ADT	8,275

The mean speed is lower than the posted speed limit by 14 MPH and the 85th percentile speed is lower 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 59 crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (25 crashes), Side Swiped (9 crashes) and Left Turn (11 crashes). The other collision types had five crashes or less. Furthermore, this site experienced a high frequency (24 crashes) of injury-related crashes.

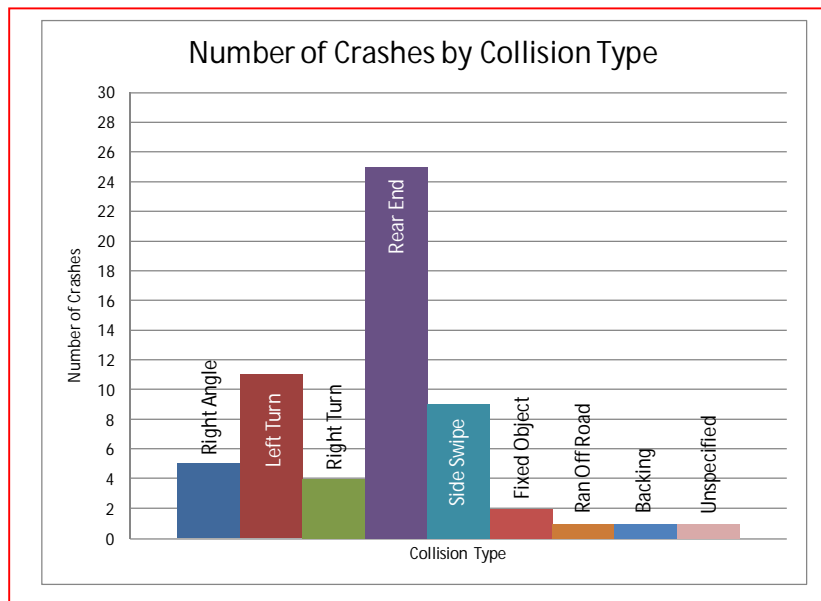
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District Department of Transportation

2800 Block Bladensburg Road NE

Severity			Weather			Surface condition			Light Condition		
Total	59										
Fatal	0	0.0%	Clear	49	83.1%	Dry	49	83.1%	Day	38	64.4%
Injury	24	40.7%	Rain	7	11.9%	Wet	10	16.9%	Night	20	33.9%
Truck	9	15.3%	Fog/Mist	2	3.4%	Snow/Ice	0	0.0%			
Bus	4	6.8%									



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”¹ as two errors leading to rear-end and sideswipe crashes. Both of these errors can be decreased with a decrease in travel speed.

The Bladensburg Road 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)*².

¹ AASHTO Highway Safety Manual, 1st Edition, 2010; Volume 1, page 2-13

² DDOT, TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011), pg. 80.



District Department of Transportation

2800 Block Bladensburg Road NE

Safety Nexus

This site presents the following safety considerations which may support the nexus between traffic safety and the speed camera:

1. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – There were an elevated number of speed-related crashes at this location, including rear end and side swipe crashes as well as a high frequency (24 crashes) of injury-related crashes. The Bladensburg Road 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 is a residential and commercial area with apartments and businesses.
 - b. There are two schools in the area: Marshall Elementary School and Lincoln Elementary School.
 - c. Fort Lincoln Park is also in the area which generates pedestrian and bicycle activity.
 - d. There are several bus stops in the area which generate pedestrian activity.
 - e. 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, due to the elevated number of speed-related crashes and 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.

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SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2800 block of Bladensburg Rd 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
11/15/13	3	10	7	2	0	0	0	0	0	0	0	0	0	0	22
01:00	3	12	15	2	0	0	0	0	0	0	0	0	0	0	32
02:00	2	13	9	2	0	1	0	0	0	0	0	0	0	0	27
03:00	3	14	8	3	0	0	0	0	0	0	0	0	0	0	28
04:00	7	24	26	11	7	1	0	0	0	0	0	0	0	0	76
05:00	24	62	85	33	9	2	0	0	0	0	0	0	0	0	215
06:00	92	106	160	80	16	5	0	0	0	0	0	0	0	0	459
07:00	177	211	268	108	19	3	2	0	0	0	0	0	0	0	788
08:00	156	209	246	58	12	1	0	0	0	0	0	0	0	0	682
09:00	120	197	154	40	5	0	0	0	0	0	0	0	0	0	516
10:00	74	179	141	25	3	0	0	0	0	0	0	0	0	0	422
11:00	109	192	120	19	1	0	0	0	0	0	0	0	0	0	441
12 PM	107	257	119	6	1	0	0	0	0	0	0	0	0	0	490
13:00	123	230	108	19	0	0	0	0	0	0	0	0	0	0	480
14:00	169	204	129	25	3	0	0	0	0	0	0	0	0	0	530
15:00	113	228	114	19	1	0	0	0	0	0	0	0	0	0	475
16:00	143	182	122	14	0	1	0	0	0	0	0	0	0	0	462
17:00	114	189	128	20	3	0	0	0	0	0	0	0	0	0	454
18:00	89	161	136	22	3	0	0	0	0	0	0	0	0	0	411
19:00	93	168	94	17	4	0	0	0	0	0	0	0	0	0	376
20:00	44	115	98	14	1	0	0	0	0	0	0	0	0	0	272
21:00	20	119	68	15	1	0	0	0	0	0	0	0	0	0	223
22:00	29	74	65	14	0	0	0	0	0	0	0	0	0	0	182
23:00	12	53	50	21	4	1	0	0	0	0	0	0	0	0	141
Total	1826	3209	2470	589	93	15	2	0	0	0	0	0	0	0	8204

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2800 block of Bladensburg Rd 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
11/16/13	4	26	34	5	2	0	0	0	0	0	0	0	0	0	71
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	26	34	5	2	0	0	0	0	0	0	0	0	0	71
Grand Total	1830	3235	2504	594	95	15	2	0	0	0	0	0	0	0	8275

15th Percentile : 8 MPH
 50th Percentile : 16 MPH
 85th Percentile : 23 MPH
 95th Percentile : 26 MPH

Stats
 Mean Speed(Average) : 16 MPH
 10 MPH Pace Speed : 13-22 MPH
 Number in Pace : 4194
 Percent in Pace : 50.7%
 Number of Vehicles > 30 MPH : 125
 Percent of Vehicles > 30 MPH : 1.5%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2800 block of Bladensburg Rd NE SWB Volume

Start Time	15-Nov-13		16-Nov-13		17-Nov-13		Daily Average	
	Fri A.M.	P.M.	Sat A.M.	P.M.	Sun A.M.	P.M.	A.M.	P.M.
12:00	*	103	42	*	*	*	42	103
12:15	*	123	29	*	*	*	29	123
12:30	11	131	*	*	*	*	11	131
12:45	11	133	*	*	*	*	11	133
01:00	8	109	*	*	*	*	8	109
01:15	9	105	*	*	*	*	9	105
01:30	11	133	*	*	*	*	11	133
01:45	4	133	*	*	*	*	4	133
02:00	5	128	*	*	*	*	5	128
02:15	4	137	*	*	*	*	4	137
02:30	11	140	*	*	*	*	11	140
02:45	7	125	*	*	*	*	7	125
03:00	6	126	*	*	*	*	6	126
03:15	9	110	*	*	*	*	9	110
03:30	2	131	*	*	*	*	2	131
03:45	11	108	*	*	*	*	11	108
04:00	7	126	*	*	*	*	7	126
04:15	22	115	*	*	*	*	22	115
04:30	20	126	*	*	*	*	20	126
04:45	27	95	*	*	*	*	27	95
05:00	35	129	*	*	*	*	35	129
05:15	49	120	*	*	*	*	49	120
05:30	61	107	*	*	*	*	61	107
05:45	70	98	*	*	*	*	70	98
06:00	80	99	*	*	*	*	80	99
06:15	126	98	*	*	*	*	126	98
06:30	114	104	*	*	*	*	114	104
06:45	139	110	*	*	*	*	139	110
07:00	196	102	*	*	*	*	196	102
07:15	184	103	*	*	*	*	184	103
07:30	208	88	*	*	*	*	208	88
07:45	200	83	*	*	*	*	200	83
08:00	186	63	*	*	*	*	186	63
08:15	171	92	*	*	*	*	171	92
08:30	179	59	*	*	*	*	179	59
08:45	146	58	*	*	*	*	146	58
09:00	146	67	*	*	*	*	146	67
09:15	136	48	*	*	*	*	136	48
09:30	113	51	*	*	*	*	113	51
09:45	121	57	*	*	*	*	121	57
10:00	96	56	*	*	*	*	96	56
10:15	102	50	*	*	*	*	102	50
10:30	106	43	*	*	*	*	106	43
10:45	118	33	*	*	*	*	118	33
11:00	113	39	*	*	*	*	113	39
11:15	108	38	*	*	*	*	108	38
11:30	107	29	*	*	*	*	107	29
11:45	113	35	*	*	*	*	113	35
Total	3708	4496	71	0	0	0	3779	4496
Combined Total	8204		71		0		8275	
Peak	07:00	01:45					07:00	01:45
Vol.	788	538					788	538
P.H.F.	0.947	0.961					0.947	0.961
ADT	ADT 8,275		AADT 8,275					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: BLADENSBURG RD,NE From YOST PL,NE TO SOUTH DAKOTA AVE,NE

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

Prepared By: Rahul Jain

Prepared Date: 9/16/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	59	Right Angle:	5	8.5%	Fixed Object:	2	3.4%
Total Number of Fatalities:	0	Left Turn:	11	18.6%	Ran Off Road:	1	1.7%
Total Number of Injuries:	33	Right Turn:	4	6.8%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	25	42.4%	Backing:	1	1.7%
Total Number of NonDisabling Injuries:	2	Side Swiped:	9	15.3%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	0	0.0%	Unspecified:	1	1.7%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%
07:30 ~ 09:30:	4	6.8%
09:30 ~ 11:30:	8	13.6%
11:30 ~ 13:30:	6	10.2%
13:30 ~ 16:00:	9	15.3%
16:00 ~18:30:	5	8.5%
18:30 ~ 07:30:	27	45.8%
Unspecified:	0	0.0%

Day o fweek	#ACC	%
Sunday:	9	15.3%
Monday:	6	10.2%
Tuesday:	14	23.7%
Wednesday:	6	10.2%
Thursday:	7	11.9%
Friday:	10	16.9%
Saturday:	7	11.9%

Weather Condition	#ACC	%
Clear:	49	83.1%
Rain:	7	11.9%
Snow:	0	0.0%
Sleet/Hail:	0	0.0%
Fog/Mist:	2	3.4%
Crosswind/Blowing Sand:	0	0.0%
Unspecified:	1	1.7%

Surface Condition	#ACC	%
Dry:	49	83.1%
Wet:	10	16.9%
Snow/Ice:	0	0.0%
Slush:	0	0.0%
Water/Sand:	0	0.0%
Repairing:	0	0.0%
Unspecified:	0	0.0%

Type of Vehicle	#VEH	%
Passenger Car:	86	72.9%
Bus:	4	3.4%
Truck:	9	7.6%
Taxi:	3	2.5%
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:	16	13.6%

Accident Severity Type	#ACC	%
Fatal Collision:	0	0.0%
Injury Collision:	24	40.7%
PDO Collision:	35	59.3%

Light Condition	#ACC	%
Daylight:	38	64.4%
Dawn/Dusk:	1	1.7%
Dark(Lighted):	19	32.2%
Dark(Not Lighted):	1	1.7%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	0	0.0%

Contributing Factor	#VEH	%
Driver: Speed:	0	0.0%
Driver: Alcohol/Drug:	3	2.5%
Driver: Electronic Device:	0	0.0%
Driver: Others:	12	10.2%
Vehicle:	0	0.0%
Roadway:	1	0.8%
Unspecified:	102	86.4%

Pedestrian Actions	#ACC	%
In Crosswalk with Signal:	0	0.0%
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%

41 Records are not approved as of 9/16/2013 9:03:00 AM