



District Department of Transportation

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

Mt Olivet Road at West Virginia Avenue NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	505/506	5	5B	Planned	Mt Olivet Road Southeast-bound at West Virginia Avenue Northeast



This *planned* speed camera will be located in Ward 5 at the intersection of Mt. Olivet Road and West Virginia Avenue Northeast on the Southwest corner. Mt. Olivet Road runs between Bladensburg Road Northeast to the east and 9th Street Northeast to the west. The posted speed limit is 15 MPH.

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District Department of Transportation

Mt Olivet Road at West Virginia Avenue NE

Field Assessment Summary

Mt. Olivet Road is assumed to run in an East-West direction, and is classified as Minor Arterial. Mt. Olivet Road has two through lanes in each direction. West Virginia Avenue has two through lanes in each direction and a left turn bay southbound. This site has the following characteristics:

- There are three schools in the area: Gallaudet University, Model Secondary School for the Deaf, and Crummell School.
- There is a bus stop in the northeast corner of the intersection, and several others in the surrounding area.
- There is a concrete median on the South leg of the intersection and a concrete island on northeast corner.
- There are sidewalks and crosswalks on all four legs and the intersection has a traffic signal and pedestrian signals.
- There is on-street parking on both sides of the South leg of the intersection.

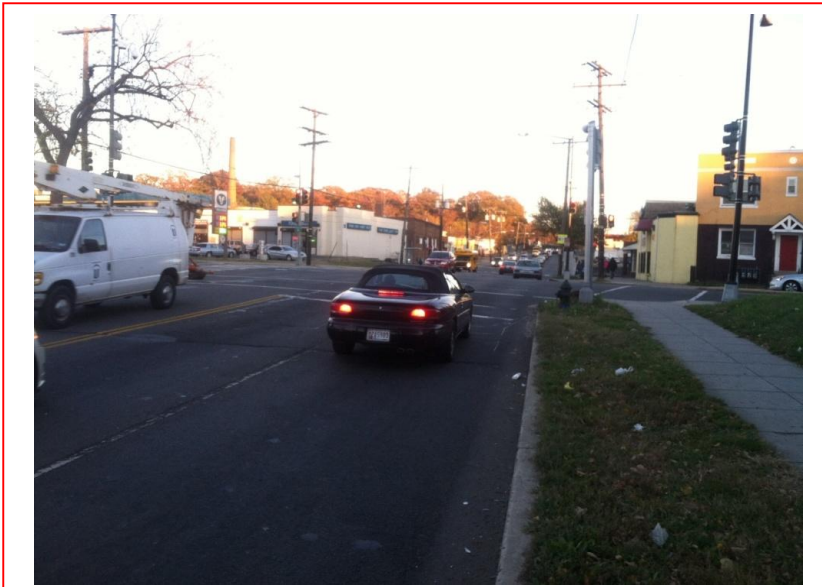


Looking Northbound



District Department of Transportation

Mt Olivet Road at West Virginia Avenue NE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	15
Mean Speed (MPH)	18
85th Percentile Speed (MPH)	26
10 MPH Pace Speed	19-28
ADT	7,363

The mean speed is 3 MPH higher than the posted speed limit and the 85th percentile speed is 11 MPH higher than the posted speed limit. This location may benefit from additional speed enforcement.

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 73 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 types of collision at this location were Left Turn (15 crashes), Rear End (15 crashes), and Side Swipe (15 crashes). The other collision types had five crashes or less each. Furthermore, this location experienced a high frequency (30 crashes) of injury-related crashes.

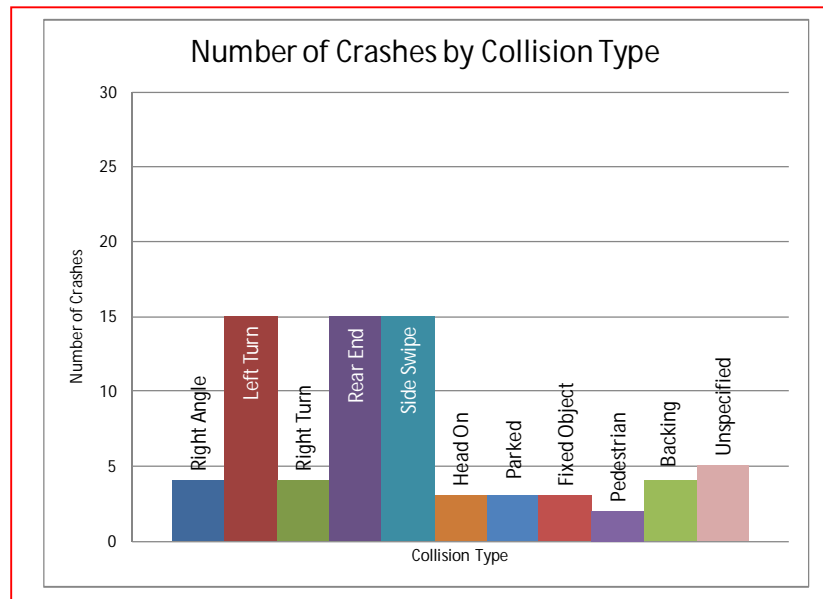
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District Department of Transportation

Mt Olivet Road at West Virginia Avenue NE

Severity			Weather			Surface condition			Light Condition		
Total	73										
Fatal	0	0.0%	Clear	48	65.8%	Dry	49	67.1%	Day	40	54.8%
Injury	30	41.1%	Rain	14	19.2%	Wet	16	21.9%	Night	26	35.6%
Truck	9	12.3%	Snow	4	5.5%	Snow/Ice	3	4.1%			
Police/EMS	4	5.5%									



There was an elevated number of speed related crashes at this location, including rear end and side swipe crashes. The 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.

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 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 crashes, as well as a high frequency (30 crashes) of injury-related crashes.

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



District Department of Transportation

Mt Olivet Road at West Virginia Avenue NE

3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. There are three schools in the area: Gallaudet University, Model Secondary School for the Deaf, and Crummell School.
 - b. There are several bus stops in the area which generate pedestrian activity.
 - c. There is on-street parking on both sides of the South leg.

Due to the speed data analysis, 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

Mt Olivet SEB @ West Virginia Ave NE Speed

SEB															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/12/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	7	17	17	4	0	0	1	0	0	0	0	0	0	46
02:00	0	5	16	10	4	0	0	0	0	0	0	0	0	0	35
03:00	1	5	11	7	1	1	0	0	0	0	0	0	0	0	26
04:00	0	12	13	9	2	2	0	0	0	0	0	0	0	0	38
05:00	7	13	22	28	8	1	0	0	0	0	0	0	0	0	79
06:00	31	41	81	88	28	3	1	0	0	0	0	0	0	0	273
07:00	121	59	67	67	19	2	0	0	0	0	0	0	0	0	335
08:00	97	46	89	70	25	1	0	0	0	0	0	0	0	0	328
09:00	67	87	154	93	24	3	2	0	0	0	0	0	0	0	430
10:00	95	163	107	30	6	0	0	0	0	0	0	0	0	0	401
11:00	87	154	138	34	3	0	0	0	0	0	0	0	0	0	416
12 PM	127	124	103	26	4	0	0	0	0	0	0	0	0	0	384
13:00	164	121	94	17	3	0	0	0	0	0	0	0	0	0	399
14:00	269	150	55	13	0	0	0	0	0	0	0	0	0	0	487
15:00	282	129	70	14	0	0	0	0	0	0	0	0	0	0	495
16:00	272	83	98	31	6	0	0	0	0	0	0	0	0	0	490
17:00	129	101	192	252	40	0	0	0	0	0	0	0	0	0	714
18:00	75	75	194	239	28	0	0	0	0	0	0	0	0	0	611
19:00	21	45	141	115	40	5	0	0	0	0	0	0	0	0	367
20:00	14	28	116	118	20	0	0	0	0	0	0	0	0	0	296
21:00	17	36	109	101	12	0	1	0	0	0	0	0	0	0	276
22:00	5	20	70	78	21	3	0	0	0	0	0	0	0	0	197
23:00	8	18	52	72	25	2	0	0	0	0	0	0	0	0	177
Total	1889	1522	2009	1529	323	23	4	1	0	0	0	0	0	0	7300

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Mt Olivet SEB @ West Virginia Ave NE 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
11/13/13	1	12	17	28	5	0	0	0	0	0	0	0	0	0	63
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	1	12	17	28	5	0	0	0	0	0	0	0	0	0	63
Grand Total	1890	1534	2026	1557	328	23	4	1	0	0	0	0	0	0	7363

15th Percentile : 7 MPH
 50th Percentile : 17 MPH
 85th Percentile : 26 MPH
 95th Percentile : 30 MPH

Stats
 Mean Speed(Average) : 18 MPH
 10 MPH Pace Speed : 19-28 MPH
 Number in Pace : 2729
 Percent in Pace : 37.1%
 Number of Vehicles > 15 MPH : 5473
 Percent of Vehicles > 15 MPH : 74.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Mt Olivet SEB @ West Virginia Ave NE Volume

Start Time	Tue A.M.	12-Nov- P.M.	Wed A.M.	13-Nov- P.M.	Thu A.M.	14-Nov- P.M.	Daily Average A.M.	P.M.	
12:00	*	122	24	*	*	*	24	122	
12:15	*	96	19	*	*	*	19	96	
12:30	*	96	15	*	*	*	15	96	
12:45	*	70	5	*	*	*	5	70	
01:00	14	90	*	*	*	*	14	90	
01:15	8	95	*	*	*	*	8	95	
01:30	16	111	*	*	*	*	16	111	
01:45	8	103	*	*	*	*	8	103	
02:00	14	114	*	*	*	*	14	114	
02:15	7	121	*	*	*	*	7	121	
02:30	5	120	*	*	*	*	5	120	
02:45	9	132	*	*	*	*	9	132	
03:00	5	116	*	*	*	*	5	116	
03:15	8	122	*	*	*	*	8	122	
03:30	11	133	*	*	*	*	11	133	
03:45	2	124	*	*	*	*	2	124	
04:00	7	140	*	*	*	*	7	140	
04:15	7	73	*	*	*	*	7	73	
04:30	11	123	*	*	*	*	11	123	
04:45	13	154	*	*	*	*	13	154	
05:00	18	171	*	*	*	*	18	171	
05:15	13	173	*	*	*	*	13	173	
05:30	24	190	*	*	*	*	24	190	
05:45	24	180	*	*	*	*	24	180	
06:00	46	177	*	*	*	*	46	177	
06:15	54	152	*	*	*	*	54	152	
06:30	86	149	*	*	*	*	86	149	
06:45	87	133	*	*	*	*	87	133	
07:00	101	103	*	*	*	*	101	103	
07:15	71	87	*	*	*	*	71	87	
07:30	80	86	*	*	*	*	80	86	
07:45	83	91	*	*	*	*	83	91	
08:00	69	77	*	*	*	*	69	77	
08:15	75	66	*	*	*	*	75	66	
08:30	82	70	*	*	*	*	82	70	
08:45	102	83	*	*	*	*	102	83	
09:00	120	72	*	*	*	*	120	72	
09:15	102	76	*	*	*	*	102	76	
09:30	106	70	*	*	*	*	106	70	
09:45	102	58	*	*	*	*	102	58	
10:00	104	51	*	*	*	*	104	51	
10:15	105	46	*	*	*	*	105	46	
10:30	89	49	*	*	*	*	89	49	
10:45	103	51	*	*	*	*	103	51	
11:00	113	62	*	*	*	*	113	62	
11:15	98	45	*	*	*	*	98	45	
11:30	113	39	*	*	*	*	113	39	
11:45	92	31	*	*	*	*	92	31	
Total	2407	4893	63	0	0	0	2470	4893	
Combined Total	7300		63		0		7363		
Peak	08:45	05:15	-	12:00	-	-	-	08:45	05:15
Vol.	430	720	-	63	-	-	-	430	720
P.H.F.	0.896	0.947		0.656				0.896	0.947
ADT		ADT 7,363		AADT 7,363					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: MOUNT OLIVET RD,NE From MONTELLO AVE,NE TO CAPITOL AVE,NE

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:	73	Right Angle:	4	5.5%	Fixed Object:	3	4.1%
Total Number of Fatalities:	0	Left Turn:	15	20.5%	Ran Off Road:	0	0.0%
Total Number of Injuries:	52	Right Turn:	4	5.5%	Ped. Involved:	2	2.7%
Total Number of Disabling Injuries:	1	Rear End:	15	20.5%	Backing:	4	5.5%
Total Number of NonDisabling Injuries:	14	Side Swiped:	15	20.5%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	3	Head On:	3	4.1%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	1	Parked:	3	4.1%	Unspecified:	5	6.8%
Total Number of Motorcycles Involved:	1						

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	7	9.6%	Sunday:	14	19.2%
09:30 ~ 11:30:	4	5.5%	Monday:	5	6.8%
11:30 ~ 13:30:	3	4.1%	Tuesday:	15	20.5%
13:30 ~ 16:00:	14	19.2%	Wednesday:	7	9.6%
16:00 ~18:30:	10	13.7%	Thursday:	14	19.2%
18:30 ~ 07:30:	35	47.9%	Friday:	9	12.3%
Unspecified:	0	0.0%	Saturday:	9	12.3%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	48	65.8%	Dry:	49	67.1%
Rain:	14	19.2%	Wet:	16	21.9%
Snow:	4	5.5%	Snow/Ice:	3	4.1%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	0	0.0%	Water/Sand:	1	1.4%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	7	9.6%	Unspecified:	4	5.5%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	112	80.0%	Fatal Collision:	0	0.0%
Bus:	3	2.1%	Injury Collision:	30	41.1%
Truck:	9	6.4%	PDO Collision:	43	58.9%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	4	2.9%	Daylight:	40	54.8%
Motorcycle/Moped:	1	0.7%	Dawn/Dusk:	4	5.5%
Bicycle:	1	0.7%	Dark(Lighted):	26	35.6%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	10	7.1%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	3	4.1%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	2	1.4%	In Crosswalk with Signal:	1	100.0%
Driver: Alcohol/Drug:	2	1.4%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	33	23.6%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	2	1.4%	Not in Crosswalk:	0	0.0%
Roadway:	0	0.0%	From Between Parked Cars:	0	0.0%
Unspecified:	101	72.1%	Unspecified:	0	0.0%

41 Records are not approved as of 10/6/2013 5:23:19 PM