



District Department of Transportation

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

5600 Block MacArthur Boulevard NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	205	3	3D	Proposed	5600 Block MacArthur Boulevard Northwest Northbound



This *proposed* speed camera will be located in Ward 3 at the 5600 block of MacArthur Boulevard Northwest in the northbound direction. MacArthur Boulevard runs parallel to the Potomac River from Maryland in the north to Canal Road Northwest in the south. The posted speed limit is 25 MPH.

W3 - 522





District Department of Transportation

5600 Block MacArthur Boulevard NW

Field Assessment Summary

MacArthur Boulevard is assumed to run in the North-South direction, and is classified as a principal arterial. MacArthur Boulevard has two travel lanes in each direction. This site has the following characteristics:

- This is a residential area with houses and driveways on both sides of the street.
- There is on-street parking both sides of the street.
- There is sidewalk on both sides of the street.
- There is a center grass median in the roadway.
- There is a bus stop on west side of the street.
- The pavement is in fair condition and there is curb and gutter drainage.
- A bike trail runs parallel to MacArthur Boulevard 0.1 miles to the west.



Northbound

W3 - 523



District Department of Transportation

5600 Block MacArthur Boulevard NW



Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	28
85th Percentile Speed (MPH)	32
10 MPH Pace Speed (MPH)	24-33
ADT	7,776

The mean speed is 3 MPH higher than the posted speed limit and the 85th percentile speed is 7 MPH higher 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 seven 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 crashes were Right Angle, Side Swipe, and Parked each with two crashes. Furthermore, this site experienced three injury-related crashes.

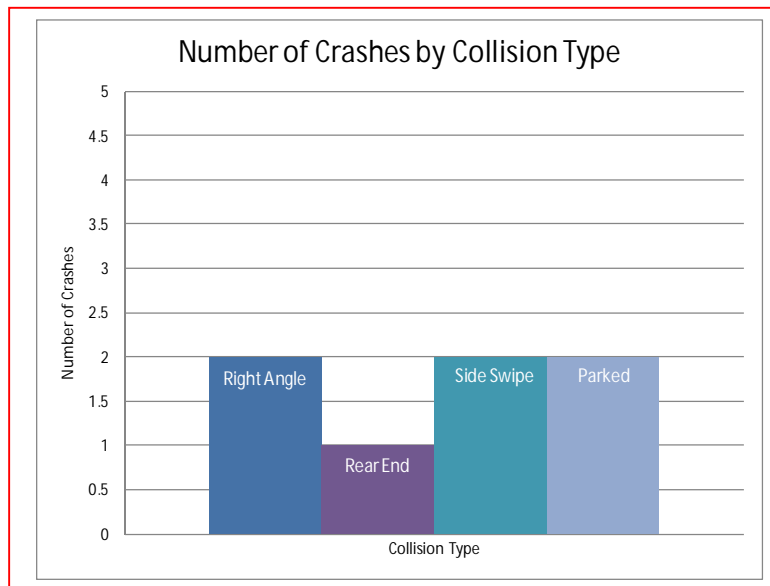
W3 - 524



District Department of Transportation

5600 Block MacArthur Boulevard NW

Severity			Weather			Surface condition			Light Condition		
Total	7										
Fatal	0	0.0%	Clear	6	85.7%	Dry	6	85.7%	Day	4	57.1%
Injury	3	42.9%	Rain	1	14.3%	Wet	1	14.3%	Night	3	42.9%
Taxi	0	0.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	0	0.0%									



Safety Nexus

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

1. Speed Data – The 85th percentile speed is much higher than the posted speed limit at this location.
2. Crash Data – This site experienced three injury-related crashes.
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.
 - b. There is on-street parking at this location.
 - c. There are multiple bus stops near this location which generate pedestrian activity.
 - d. There is a bike trail 0.1 miles west and runs parallel to MacArthur Boulevard from this location which generates pedestrian activity.

W3 - 525



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5600 Block MacArthur Boulevard NW

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

W3 - 526

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

5600 Block of MacArthur Blv NW NB Speed

NB

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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	0	1	1	3	0	0	0	0	0	0	0	0	0	0	5
04:00	0	1	3	13	5	1	1	1	0	0	0	0	0	0	25
05:00	1	1	14	62	41	12	4	2	0	0	0	0	0	0	137
06:00	8	1	38	148	110	41	5	2	0	0	0	0	0	0	353
07:00	16	5	103	330	172	33	1	1	0	0	0	0	0	0	661
08:00	24	8	147	387	154	22	1	0	0	0	0	0	0	0	743
09:00	21	10	95	310	162	24	2	0	0	0	0	0	0	0	624
10:00	8	2	64	206	93	10	1	0	0	0	1	0	0	0	385
11:00	5	4	55	173	79	12	1	0	0	0	0	0	0	0	329
12 PM	7	3	96	182	104	19	3	0	0	0	0	0	0	0	414
13:00	7	3	75	189	87	13	0	0	0	0	0	0	0	0	374
14:00	6	3	64	218	101	16	0	0	0	0	0	0	0	0	408
15:00	9	2	85	271	142	16	2	0	0	0	0	0	0	0	527
16:00	16	1	73	259	153	16	1	0	0	0	0	0	0	0	519
17:00	15	4	90	350	132	16	0	0	0	0	0	0	0	0	607
18:00	17	6	115	316	127	22	1	0	0	0	0	0	0	0	604
19:00	15	3	75	224	102	8	1	0	0	0	0	0	0	0	428
20:00	3	4	37	141	47	3	0	0	0	0	0	0	0	0	235
21:00	1	0	31	100	35	5	3	0	0	0	0	0	0	0	175
22:00	0	1	20	73	36	4	0	0	0	0	0	0	0	0	134
23:00	0	1	11	28	13	2	1	0	0	0	0	0	0	0	56
Total	179	64	1292	3983	1895	295	28	6	0	0	1	0	0	0	7743

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

5600 Block of MacArthur Blv NW NB Speed

NB

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
11/14/13	0	0	5	6	5	0	0	0	0	0	0	0	0	0	16
01:00	0	0	2	2	3	1	0	0	0	0	0	0	0	0	8
02:00	0	0	1	3	2	1	0	0	0	0	0	0	0	0	7
03:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	8	12	11	2	0	0	0	0	0	0	0	0	33
Grand Total	179	64	1300	3995	1906	297	28	6	0	0	1	0	0	0	7776

15th Percentile : 22 MPH
50th Percentile : 27 MPH
85th Percentile : 32 MPH
95th Percentile : 35 MPH

Stats
Mean Speed(Average) : 28 MPH
10 MPH Pace Speed : 24-33 MPH
Number in Pace : 5534
Percent in Pace : 71.2%
Number of Vehicles > 25 MPH : 5779
Percent of Vehicles > 25 MPH : 74.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

5600 Block of MacArthur Blv NW NB Volume

Start Time	Wed A.M.	13-Nov-13 P.M.	Thu A.M.	14-Nov-13 P.M.	Fri A.M.	15-Nov-13 P.M.	Daily Average	
							A.M.	P.M.
12:00	*	122	5	*	*	*	5	122
12:15	*	98	3	*	*	*	3	98
12:30	*	98	6	*	*	*	6	98
12:45	*	96	2	*	*	*	2	96
01:00	*	99	3	*	*	*	3	99
01:15	*	99	0	*	*	*	0	99
01:30	*	96	4	*	*	*	4	96
01:45	*	80	1	*	*	*	1	80
02:00	*	96	2	*	*	*	2	96
02:15	*	92	2	*	*	*	2	92
02:30	*	112	1	*	*	*	1	112
02:45	*	108	2	*	*	*	2	108
03:00	*	134	2	*	*	*	2	134
03:15	1	133	*	*	*	*	1	133
03:30	2	135	*	*	*	*	2	135
03:45	2	125	*	*	*	*	2	125
04:00	4	132	*	*	*	*	4	132
04:15	5	121	*	*	*	*	5	121
04:30	7	132	*	*	*	*	7	132
04:45	9	134	*	*	*	*	9	134
05:00	20	137	*	*	*	*	20	137
05:15	27	156	*	*	*	*	27	156
05:30	35	158	*	*	*	*	35	158
05:45	55	156	*	*	*	*	55	156
06:00	67	160	*	*	*	*	67	160
06:15	80	182	*	*	*	*	80	182
06:30	90	130	*	*	*	*	90	130
06:45	116	132	*	*	*	*	116	132
07:00	139	124	*	*	*	*	139	124
07:15	158	127	*	*	*	*	158	127
07:30	182	101	*	*	*	*	182	101
07:45	182	76	*	*	*	*	182	76
08:00	172	62	*	*	*	*	172	62
08:15	196	68	*	*	*	*	196	68
08:30	202	56	*	*	*	*	202	56
08:45	173	49	*	*	*	*	173	49
09:00	182	47	*	*	*	*	182	47
09:15	161	40	*	*	*	*	161	40
09:30	145	47	*	*	*	*	145	47
09:45	136	41	*	*	*	*	136	41
10:00	101	46	*	*	*	*	101	46
10:15	102	36	*	*	*	*	102	36
10:30	96	30	*	*	*	*	96	30
10:45	86	22	*	*	*	*	86	22
11:00	75	16	*	*	*	*	75	16
11:15	84	10	*	*	*	*	84	10
11:30	69	21	*	*	*	*	69	21
11:45	101	9	*	*	*	*	101	9
Total	3262	4481	33	0	0	0	3295	4481
Combined Total	7743		33		0		7776	
Peak	08:15	05:30	12:00				08:15	05:30
Vol.	753	656	16				753	656
P.H.F.	0.932	0.901	0.667				0.932	0.901
ADT	ADT 7,776		AADT 7,776					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: MACARTHUR BLVD,NW From CATHEDRAL AVE (NORTH),NW TO MANNING PL,NW

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

Prepared By: Rahul Jain

Prepared Date: 9/15/2013

Total Number of Accident:	7	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	2	28.6%	Fixed Object:	0	0.0%
Total Number of Injuries:	5	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	2	Rear End:	1	14.3%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	2	28.6%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	1	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	2	28.6%	Unspecified:	0	0.0%

Time of Day	#ACC	%	Day o fweek	#ACC	%
07:30 ~ 09:30:	1	14.3%	Sunday:	1	14.3%
09:30 ~ 11:30:	0	0.0%	Monday:	1	14.3%
11:30 ~ 13:30:	1	14.3%	Tuesday:	1	14.3%
13:30 ~ 16:00:	2	28.6%	Wednesday:	2	28.6%
16:00 ~18:30:	0	0.0%	Thursday:	0	0.0%
18:30 ~ 07:30:	3	42.9%	Friday:	0	0.0%
Unspecified:	0	0.0%	Saturday:	2	28.6%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	6	85.7%	Dry:	6	85.7%
Rain:	1	14.3%	Wet:	1	14.3%
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:	0	0.0%	Unspecified:	0	0.0%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	14	77.8%	Fatal Collision:	0	0.0%
Bus:	0	0.0%	Injury Collision:	3	42.9%
Truck:	1	5.6%	PDO Collision:	4	57.1%
Taxi:	0	0.0%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	1	5.6%	Daylight:	4	57.1%
Motorcycle/Moped:	0	0.0%	Dawn/Dusk:	0	0.0%
Bicycle:	1	5.6%	Dark(Lighted):	3	42.9%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	1	5.6%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	0	0.0%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	0	0.0%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	3	16.7%	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:	15	83.3%	Unspecified:	0	0.0%

4 Records are not approved as of 9/15/2013 9:57:36 PM