



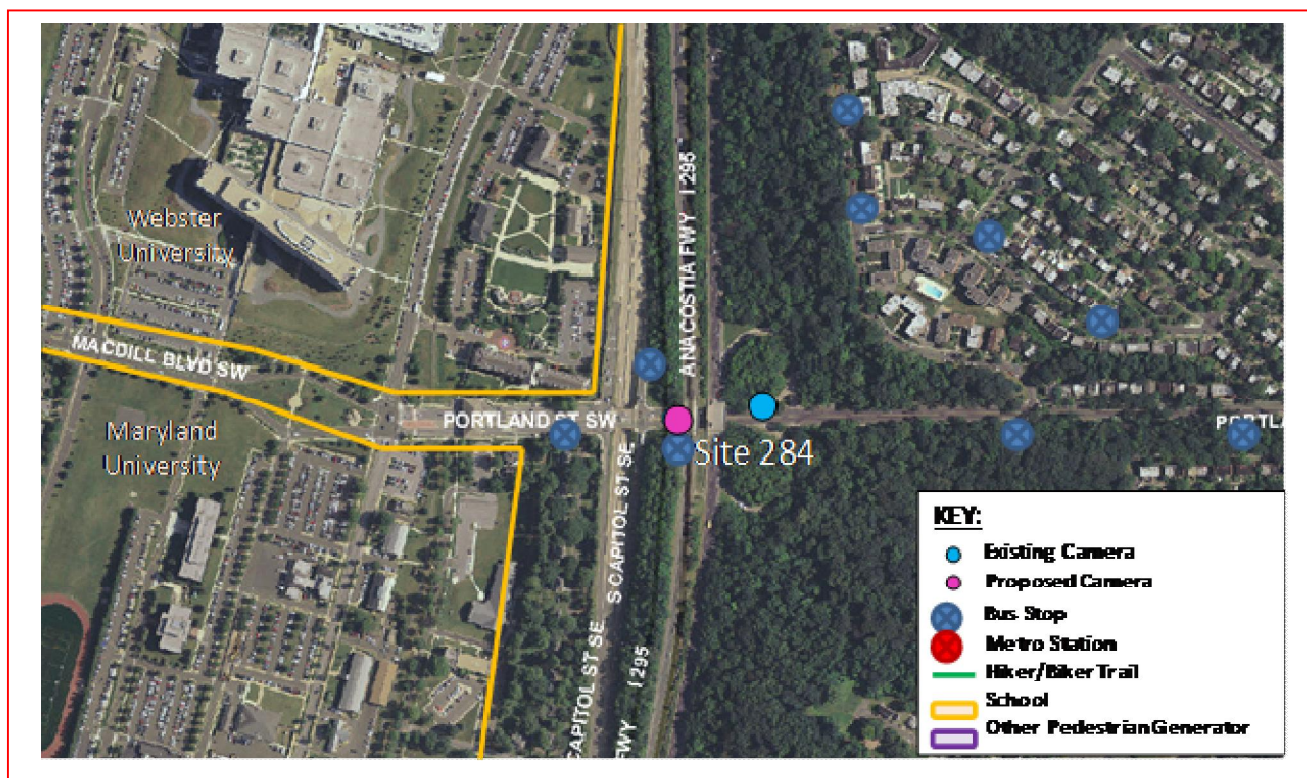
District Department of Transportation

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

### I-295 at Exit 2 SE N/B

### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
7	703	8	8C	Proposed	I-295 at Exit 2 Southeast, Northbound



The *proposed* speed camera will be located in Ward 8 on I-295 at Exit 2 Southeast in the northbound direction. I-295 runs between DC 295 to the north and DC/Maryland line to the south. The posted speed limit is 50 MPH.

W8 - 143





District Department of Transportation

I-295 at Exit 2 SE N/B

## Field Assessment Summary

I-295 is assumed to run in a north-south direction, and is classified as an interstate. I-295 has three travel lanes northbound and two travel lanes southbound. This site has the following characteristics:

- There is an entrance ramp and followed by an exit ramp at Exit 2 in the northbound direction.
- There are several bus stops in the area.
- The pavement is in good condition and there is open ditch drainage.
- There is a large grass median separating northbound and southbound traffic.



Looking Northbound



District Department of Transportation

I-295 at Exit 2 SE N/B



Looking Northbound

## Speed Data Analysis

Posted Speed Limit (MPH)	50
Mean Speed (MPH)	46
85th Percentile Speed (MPH)	62
10 MPH Pace Speed	52-61
ADT	30,564

The mean speed is lower than the posted speed limit, and the 85th percentile speed is higher than the posted speed limit at this location.

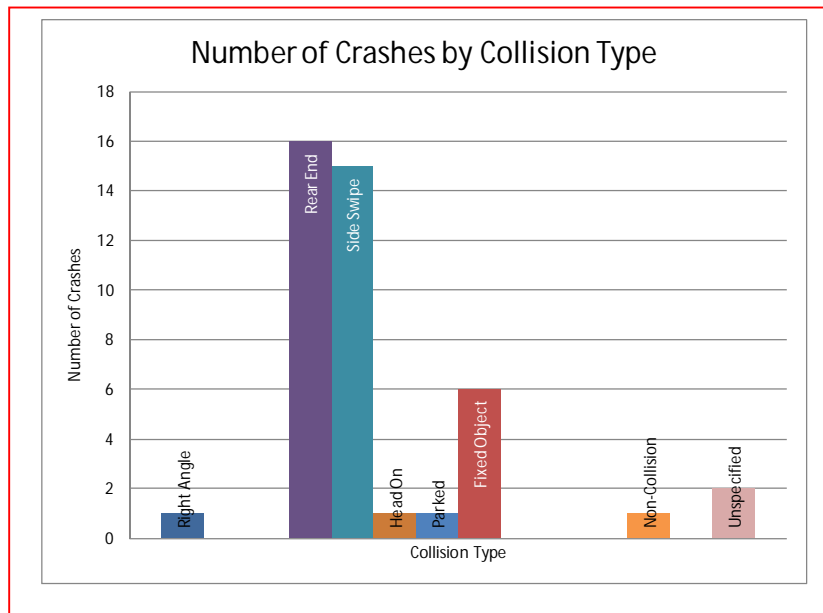
## Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 43 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 Rear (16 crashes), Side Swiped (15 crashes) and Fixed Object (6 crashes). The other collision types had 2 crashes or less each. Furthermore, the site experienced a high frequency (17 crashes) of injury-related crashes.

W8 - 145



Severity			Weather			Surface Condition			Light Condition		
Total	43										
Fatal	0	0.0%	Clear	32	74.4%	Dry	30	69.8%	Day	26	60.5%
Injury	17	39.5%	Rain	8	18.6%	Wet	8	18.6%	Night	12	27.9%
Truck	10	23.3%	Fog/Mist	2	4.7%	Snow/Ice	0	0.0%			
Police/EMS	2	4.7%									



## Safety Nexus

This site presents the following safety considerations which may establish a safety nexus between the speed camera installation and traffic safety.

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 and injury-related crashes at this location.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. There are several bus stops in the area which generate pedestrian activity off of the freeway.

Due to elevated 85<sup>th</sup> percentile speeds through the corridor, and the elevated number of speed-related and injury-related crashes, 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

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## I-295 At Exit 2 SE 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
12/03/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	1	0	0	0	0	0	1	12	21	24	8	9	2	5	83
04:00	8	0	0	0	0	0	2	23	67	65	63	32	23	9	292
05:00	34	0	0	0	0	0	6	45	182	242	218	124	49	24	924
06:00	48	0	0	0	0	3	10	89	271	324	294	146	49	27	1261
07:00	72	0	0	0	0	2	15	124	231	315	314	172	63	29	1337
08:00	64	1	0	0	0	2	23	74	236	316	300	131	57	22	1226
09:00	79	1	0	0	0	4	22	142	281	321	257	130	50	12	1299
10:00	68	0	0	0	0	0	22	138	353	315	247	126	28	12	1309
11:00	129	0	0	0	0	3	41	202	372	489	308	132	26	9	1711
12 PM	118	0	0	0	0	10	26	174	380	444	365	157	43	12	1729
13:00	114	0	1	0	0	1	31	191	416	550	397	166	24	15	1906
14:00	143	0	0	0	0	14	45	257	561	747	504	138	30	9	2448
15:00	243	148	386	428	154	56	66	131	207	172	76	25	2	0	2094
16:00	312	309	530	384	95	9	0	0	0	0	0	0	0	0	1639
17:00	412	316	358	248	28	0	0	0	0	0	0	0	0	0	1362
18:00	164	99	254	279	223	99	111	351	376	193	26	3	0	1	2179
19:00	78	0	0	0	0	1	57	389	710	565	187	51	3	1	2042
20:00	37	0	0	0	0	1	39	199	401	457	242	72	14	5	1467
21:00	40	0	0	1	2	3	30	160	366	399	249	100	14	5	1369
22:00	27	0	0	1	0	5	20	101	285	353	210	85	10	11	1108
23:00	22	0	0	0	1	2	16	75	203	205	159	75	13	8	779
Total	2213	874	1529	1341	503	215	583	2877	5919	6496	4424	1874	500	216	29564

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## I-295 At Exit 2 SE NB Speed

NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/04/13	10	0	0	0	1	1	6	53	103	146	91	48	18	7	484
01:00	5	0	0	0	0	3	6	35	58	56	47	14	13	5	242
02:00	3	0	0	0	0	0	4	23	53	46	50	23	5	6	213
03:00	0	0	0	0	0	1	2	8	13	18	12	5	1	1	61
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	18	0	0	0	1	5	18	119	227	266	200	90	37	19	1000
Grand Total	2231	874	1529	1341	504	220	601	2996	6146	6762	4624	1964	537	235	30564

15th Percentile : 17 MPH  
 50th Percentile : 52 MPH  
 85th Percentile : 62 MPH  
 95th Percentile : 66 MPH

Stats  
 Mean Speed(Average) : 46 MPH  
 10 MPH Pace Speed : 52-61 MPH  
 Number in Pace : 11623  
 Percent in Pace : 38.3%  
 Number of Vehicles > 50 MPH : 18234  
 Percent of Vehicles > 50 MPH : 60.1%

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## I-295 At Exit 2 SE NB Volume

Start Time	03-Dec-13		04-Dec-13		05-Dec-13		Daily Average	
	Tue A.M.	P.M.	Wed A.M.	P.M.	Thu A.M.	P.M.	A.M.	P.M.
12:00	*	425	163	*	*	*	163	425
12:15	*	431	130	*	*	*	130	431
12:30	*	418	113	*	*	*	113	418
12:45	*	455	78	*	*	*	78	455
01:00	*	505	60	*	*	*	60	505
01:15	*	458	53	*	*	*	53	458
01:30	*	455	67	*	*	*	67	455
01:45	*	488	62	*	*	*	62	488
02:00	*	572	60	*	*	*	60	572
02:15	*	658	53	*	*	*	53	658
02:30	*	602	49	*	*	*	49	602
02:45	*	616	51	*	*	*	51	616
03:00	*	647	34	*	*	*	34	647
03:15	*	513	27	*	*	*	27	513
03:30	36	479	*	*	*	*	36	479
03:45	47	455	*	*	*	*	47	455
04:00	57	414	*	*	*	*	57	414
04:15	57	451	*	*	*	*	57	451
04:30	83	432	*	*	*	*	83	432
04:45	95	342	*	*	*	*	95	342
05:00	146	293	*	*	*	*	146	293
05:15	193	378	*	*	*	*	193	378
05:30	269	327	*	*	*	*	269	327
05:45	316	364	*	*	*	*	316	364
06:00	323	503	*	*	*	*	323	503
06:15	321	440	*	*	*	*	321	440
06:30	307	639	*	*	*	*	307	639
06:45	310	597	*	*	*	*	310	597
07:00	326	620	*	*	*	*	326	620
07:15	376	512	*	*	*	*	376	512
07:30	344	485	*	*	*	*	344	485
07:45	291	425	*	*	*	*	291	425
08:00	313	387	*	*	*	*	313	387
08:15	311	371	*	*	*	*	311	371
08:30	287	368	*	*	*	*	287	368
08:45	315	341	*	*	*	*	315	341
09:00	279	347	*	*	*	*	279	347
09:15	337	323	*	*	*	*	337	323
09:30	327	331	*	*	*	*	327	331
09:45	356	368	*	*	*	*	356	368
10:00	331	311	*	*	*	*	331	311
10:15	322	335	*	*	*	*	322	335
10:30	347	260	*	*	*	*	347	260
10:45	309	202	*	*	*	*	309	202
11:00	411	238	*	*	*	*	411	238
11:15	403	221	*	*	*	*	403	221
11:30	435	172	*	*	*	*	435	172
11:45	462	148	*	*	*	*	462	148
Total	9442	20122	1000	0	0	0	10442	20122
Combined Total	29564		1000		0		30564	
Peak	11:00	02:15	12:00				11:00	02:15
Vol.	1711	2523	484				1711	2523
P.H.F.	0.926	0.959	0.742				0.926	0.959
ADT	ADT 30,564		AADT 30,564					

**Accident Summary Report (R-8)****Corridor:** INTERSTATE 295,BN From OVERLOOK AVE,SW TO MARTIN LUTHER KING JR AVE,SE**Time Period Covered:** From 01/01/2010 To 12/31/2012 **Prepared By:** admin TARAS **Prepared Date:** 1/2/2014

		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Accident:	43	Right Angle:	1	2.3%	Fixed Object:	6	14.0%
Total Number of Fatalities:	0	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Injuries:	19	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	2	Rear End:	16	37.2%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	2	Side Swiped:	15	34.9%	Non Collision:	1	2.3%
Total Number of Pedestrians Involved:	0	Head On:	1	2.3%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	1	2.3%	Unspecified:	2	4.7%
Total Number of Motorcycles Involved:	1						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	4	9.3%	Sunday:	3	7.0%
09:30 ~ 11:30:	5	11.6%	Monday:	2	4.7%
11:30 ~ 13:30:	1	2.3%	Tuesday:	7	16.3%
13:30 ~ 16:00:	8	18.6%	Wednesday:	10	23.3%
16:00 ~ 18:30:	5	11.6%	Thursday:	3	7.0%
18:30 ~ 07:30:	20	46.5%	Friday:	10	23.3%
Unspecified:	0	0.0%	Saturday:	8	18.6%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	32	74.4%	Dry:	30	69.8%
Rain:	8	18.6%	Wet:	8	18.6%
Snow:	0	0.0%	Snow/Ice:	0	0.0%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	2	4.7%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	1	2.3%	Unspecified:	5	11.6%

<b>Type of Vehicle</b>	<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	<b>#ACC</b>	<b>%</b>
Passenger Car:	61	73.5%	Fatal Collision:	0	0.0%
Bus:	1	1.2%	Injury Collision:	17	39.5%
Truck:	10	12.0%	PDO Collision:	26	60.5%
Taxi:	1	1.2%			
Minivan:	0	0.0%	<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Police/Emergency Vehicle:	2	2.4%	Daylight:	26	60.5%
Motorcycle/Moped:	1	1.2%	Dawn/Dusk:	1	2.3%
Bicycle:	0	0.0%	Dark(Lighted):	8	18.6%
Fixed Object:	0	0.0%	Dark(Not Lighted):	4	9.3%
Unspecified:	7	8.4%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	4	9.3%

<b>Contributing Factor</b>	<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
Driver: Speed:	8	9.6%	In Crosswalk with Signal:	0	0.0%
Driver: Alcohol/Drug:	2	2.4%	In Crosswalk against Signal:	0	0.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	13	15.7%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	0	0.0%
Roadway:	1	1.2%	From Between Parked Cars:	0	0.0%
Unspecified:	59	71.1%	Unspecified:	0	0.0%

<b>Year</b>	<b>Accidents</b>	<b>Fatalities</b>	<b>Injuries</b>	<b>Disabling Injuries</b>	<b>Pedestrians</b>	<b>Bicycles</b>	<b>Motorcycles</b>
2010	22	0	9	0	0	0	0
2011	14	0	8	1	0	0	1
2012	7	0	2	1	0	0	0

29 Records are not approved as of 1/2/2014 2:35:55 PM