



District Department of Transportation

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

DC 295 SE 0.75 Miles South of Pennsylvania Avenue SE SW/B

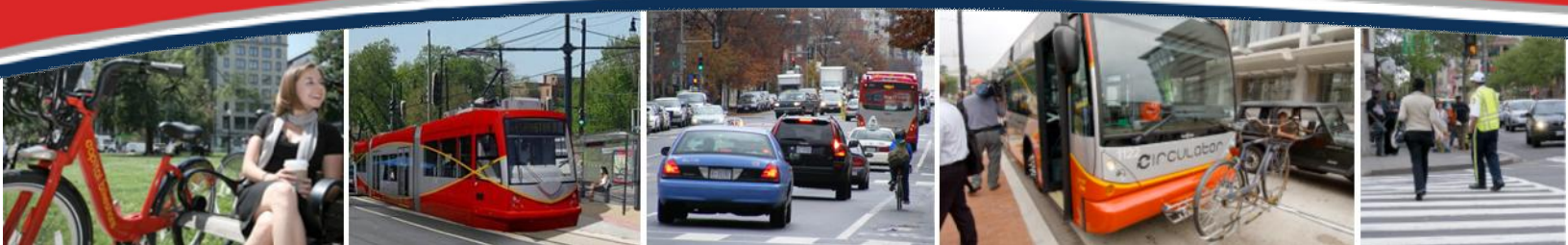
Study Area and Location

District	PSA	Ward	ANC	Phase	Description
7	605/607	7/8	7A/8A	Proposed	DC 295 SE 0.75 miles south of Pennsylvania Avenue Southeast, Southwest-bound



This *proposed* speed camera is located in Ward 7/8 on DC 295 Southeast 0.75 miles south of Pennsylvania Avenue Southeast in the southwest-bound direction. DC 295 runs between the Baltimore-Washington Parkway to the north and I-295 to the south. The posted speed limit is 50 MPH.

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DC 295 SE 0.75 Miles South of Pennsylvania Avenue SE SW/B

Field Assessment Summary

DC 295 is assumed to run in the northeast-southwest direction, and is classified as a freeway. DC 295 has three travel lanes southwest-bound and four travel lanes northeast-bound. This site has the following characteristics:

- There are residential areas nearby.
- There is guardrail separating the southwest-bound and northeast-bound traffic.
- There is a pedestrian bridge over DC 295 in this area.
- The lanes on DC-295 SB merge with exiting one-lane ramp from I-695/11th Street Bridge.
- The pavement condition is new and there is open ditch drainage.



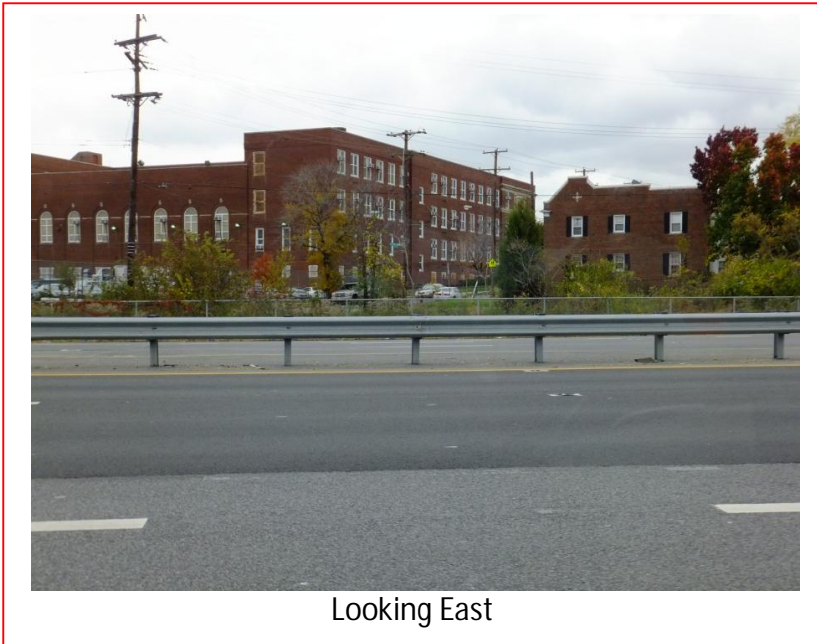
Looking Southwest-bound

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District Department of Transportation

DC 295 SE 0.75 Miles South of Pennsylvania Avenue SE SW/B



Looking East

Speed Data Analysis

Posted Speed Limit (MPH)	50
Mean Speed (MPH)	41
85th Percentile Speed (MPH)	61
10 MPH Pace Speed	52-61
ADT	28,700

The mean speed is lower than the posted speed limit in both directions and the 85th percentile speed is 11 MPH higher than the posted speed limit.

Crash Data Analysis

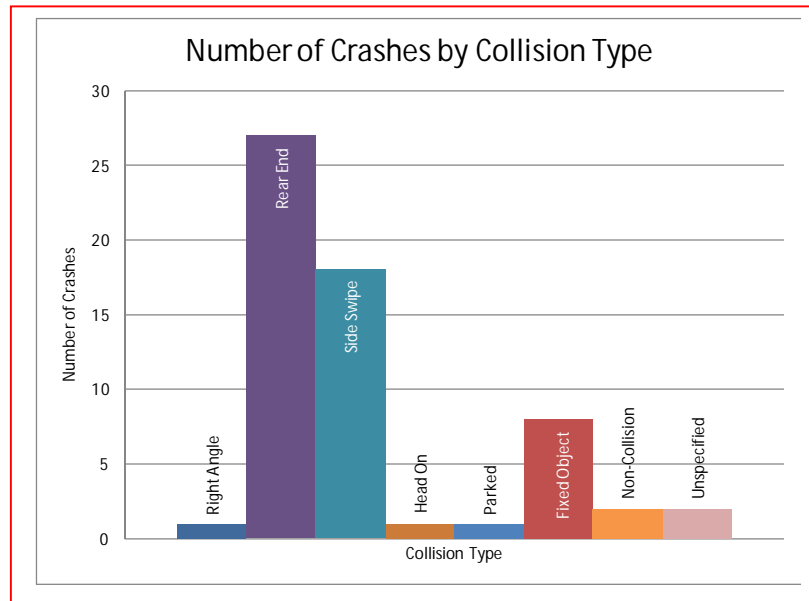
From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012 there were a total of 60 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common types of crashes at this location were Rear End (27 crashes) and Side Swipe (18 crashes). There were 8 crashes with speeding as a contributing factor. Furthermore, this site experienced a high frequency (22 crashes) of injury-related crashes.

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DC 295 SE 0.75 Miles South of Pennsylvania Avenue SE SW/B

Severity			Weather			Surface condition			Light Condition		
Total	60										
Fatal	0	0.0%	Clear	49	81.7%	Dry	45	75.0%	Day	38	63.3%
Injury	22	36.7%	Rain	8	13.3%	Wet	9	15.0%	Night	15	25.0%
Truck	13	21.7%	Fog/Mist	2	3.3%	Slush	1	1.7%			
Bus	2	3.3%									



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.

Safety Nexus

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

1. Speed Data – The 85th percentile speed is much higher than the posted speed limit.

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



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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 (22 crashes) of injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. The lanes on DC-295 SB merge with exiting one-lane ramp from I-695/11th Street Bridge. It is desired to have slower speeds in this section of the freeway so vehicles can execute safer weaves and merges and thus minimize potential freeway vehicle-to-vehicle conflicts.

Due to elevated 85th percentile speed, the elevated number of speed-related crashes and injury-related crashes, pedestrian generators, and the weaving and merging operations, 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

DC295 SE .75 MILE S/O PA Avenue SE SWB Speed

SB

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
12/02/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	59	0	0	0	0	1	8	28	87	121	129	67	43	25	568
04:00	128	0	0	0	0	0	4	34	123	277	315	203	110	59	1253
05:00	336	0	0	1	0	6	43	191	564	638	427	173	58	21	2458
06:00	352	0	2	0	1	10	105	448	700	469	151	26	8	1	2273
07:00	302	53	51	47	53	55	80	91	113	49	9	2	0	0	905
08:00	287	50	42	49	37	25	11	5	0	0	0	0	0	0	506
09:00	341	26	23	51	62	58	91	145	259	268	175	63	20	4	1586
10:00	245	1	2	1	0	4	31	171	340	431	218	92	16	9	1561
11:00	261	0	2	0	0	2	16	107	223	267	180	62	15	4	1139
12 PM	376	0	3	1	1	4	33	192	399	462	279	111	42	12	1915
13:00	345	1	1	0	0	3	18	167	343	391	271	121	29	17	1707
14:00	356	0	1	1	0	0	15	145	292	324	198	74	20	7	1433
15:00	162	3	0	0	0	2	4	31	67	59	35	15	0	1	379
16:00	96	7	1	0	0	0	0	0	0	0	0	0	0	0	104
17:00	155	0	0	0	0	8	15	56	96	61	13	7	0	0	411
18:00	331	0	0	1	0	4	60	266	482	418	132	33	9	5	1741
19:00	405	1	0	0	0	1	26	152	337	455	191	58	30	11	1667
20:00	333	0	0	0	0	1	21	123	347	398	258	91	14	11	1597
21:00	301	0	0	0	0	0	18	107	271	408	292	109	34	26	1566
22:00	284	0	0	0	1	4	21	85	245	337	235	122	40	19	1393
23:00	202	0	0	0	1	1	17	76	209	247	194	85	34	25	1091
Total	5657	142	128	152	156	189	637	2620	5497	6080	3702	1514	522	257	27253

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

DC295 SE .75 MILE S/O PA Avenue SE SWB Speed

SB

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	104	0	0	1	0	4	13	55	124	168	135	44	21	15	684
01:00	51	0	0	0	0	1	6	21	69	89	71	36	20	13	377
02:00	46	0	0	0	0	1	7	32	50	84	83	44	21	18	386
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	201	0	0	1	0	6	26	108	243	341	289	124	62	46	1447
Grand Total	5858	142	128	153	156	195	663	2728	5740	6421	3991	1638	584	303	28700

15th Percentile : 7 MPH
 50th Percentile : 51 MPH
 85th Percentile : 61 MPH
 95th Percentile : 66 MPH

Stats
 Mean Speed(Average) : 41 MPH
 10 MPH Pace Speed : 52-61 MPH
 Number in Pace : 10000
 Percent in Pace : 35.2%
 Number of Vehicles > 50 MPH : 18677
 Percent of Vehicles > 50 MPH : 65.8%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

DC295 SE .75 MILE S/O PA Avenue SE SWB Volume

Start Time	Mon	02-Dec-1	Tue	03-Dec-1	Wed	04-Dec-1	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	446	194	*	*	*	194	446
12:15	*	454	190	*	*	*	190	454
12:30	*	509	155	*	*	*	155	509
12:45	*	506	145	*	*	*	145	506
01:00	*	447	95	*	*	*	95	447
01:15	*	432	102	*	*	*	102	432
01:30	*	434	90	*	*	*	90	434
01:45	*	394	90	*	*	*	90	394
02:00	*	364	108	*	*	*	108	364
02:15	*	366	110	*	*	*	110	366
02:30	*	366	86	*	*	*	86	366
02:45	*	337	82	*	*	*	82	337
03:00	113	291	*	*	*	*	113	291
03:15	118	29	*	*	*	*	118	29
03:30	156	27	*	*	*	*	156	27
03:45	181	32	*	*	*	*	181	32
04:00	157	29	*	*	*	*	157	29
04:15	250	20	*	*	*	*	250	20
04:30	392	24	*	*	*	*	392	24
04:45	454	31	*	*	*	*	454	31
05:00	503	23	*	*	*	*	503	23
05:15	653	46	*	*	*	*	653	46
05:30	670	38	*	*	*	*	670	38
05:45	632	304	*	*	*	*	632	304
06:00	647	439	*	*	*	*	647	439
06:15	577	437	*	*	*	*	577	437
06:30	554	431	*	*	*	*	554	431
06:45	495	434	*	*	*	*	495	434
07:00	414	388	*	*	*	*	414	388
07:15	119	424	*	*	*	*	119	424
07:30	146	426	*	*	*	*	146	426
07:45	226	429	*	*	*	*	226	429
08:00	149	404	*	*	*	*	149	404
08:15	120	402	*	*	*	*	120	402
08:30	111	412	*	*	*	*	111	412
08:45	126	379	*	*	*	*	126	379
09:00	225	400	*	*	*	*	225	400
09:15	349	367	*	*	*	*	349	367
09:30	522	422	*	*	*	*	522	422
09:45	490	377	*	*	*	*	490	377
10:00	470	338	*	*	*	*	470	338
10:15	451	361	*	*	*	*	451	361
10:30	365	376	*	*	*	*	365	376
10:45	275	318	*	*	*	*	275	318
11:00	117	292	*	*	*	*	117	292
11:15	112	286	*	*	*	*	112	286
11:30	478	266	*	*	*	*	478	266
11:45	432	247	*	*	*	*	432	247
Total	12249	15004	1447	0	0	0	13696	15004
Combined Total	27253		1447		0		28700	
Peak Vol.	05:15	00:15	12:00	-	-	-	05:15	00:15
P.H.F.	2602	1916	684	-	-	-	2602	1916
	0.971	0.941	0.881				0.971	0.941
ADT	ADT 28,700		AADT 28,700					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: INTERSTATE 295,BN From PENNSYLVANIA AVE,SE TO OVERLOOK AVE,SW

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

Prepared By: Rahul Jain

Prepared Date: 1/9/2014

Total Number of Accident:	60	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	1	1.7%	Fixed Object:	8	13.3%
Total Number of Injuries:	25	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	2	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	3	Rear End:	27	45.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	18	30.0%	Non Collision:	2	3.3%
Total Number of Bicycles Involved:	0	Head On:	1	1.7%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	1	Parked:	1	1.7%	Unspecified:	2	3.3%
Time of Day				#ACC	%	Day o fweek	
07:30 ~ 09:30:				7	11.7%	Sunday:	
09:30 ~ 11:30:				6	10.0%	Monday:	
11:30 ~ 13:30:				3	5.0%	Tuesday:	
13:30 ~ 16:00:				10	16.7%	Wednesday:	
16:00 ~18:30:				9	15.0%	Thursday:	
18:30 ~ 07:30:				25	41.7%	Friday:	
Unspecified:				0	0.0%	Saturday:	
07:30 ~ 09:30:				7	11.7%	Sunday:	
09:30 ~ 11:30:				6	10.0%	Monday:	
11:30 ~ 13:30:				3	5.0%	Tuesday:	
13:30 ~ 16:00:				10	16.7%	Wednesday:	
16:00 ~18:30:				9	15.0%	Thursday:	
18:30 ~ 07:30:				25	41.7%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				49	81.7%	Dry:	
Rain:				8	13.3%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				2	3.3%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				1	1.7%	Unspecified:	
Clear:				49	81.7%	Dry:	
Rain:				8	13.3%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				2	3.3%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				1	1.7%	Unspecified:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				83	73.5%	Fatal Collision:	
Bus:				2	1.8%	Injury Collision:	
Truck:				13	11.5%	PDO Collision:	
Taxi:				2	1.8%		
Minivan:				0	0.0%	Light Condition	
Police/Emergency Vehicle:				2	1.8%	Daylight:	
Motorcycle/Moped:				1	0.9%	Dawn/Dusk:	
Bicycle:				0	0.0%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				10	8.8%	Dark(Unknown Lighting):	
						Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
Driver: Speed:				8	7.1%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				3	2.7%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				17	15.0%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				1	0.9%	From Between Parked Cars:	
Unspecified:				84	74.3%	Unspecified:	

39 Records are not approved as of 1/9/2014 6:34:02 PM