



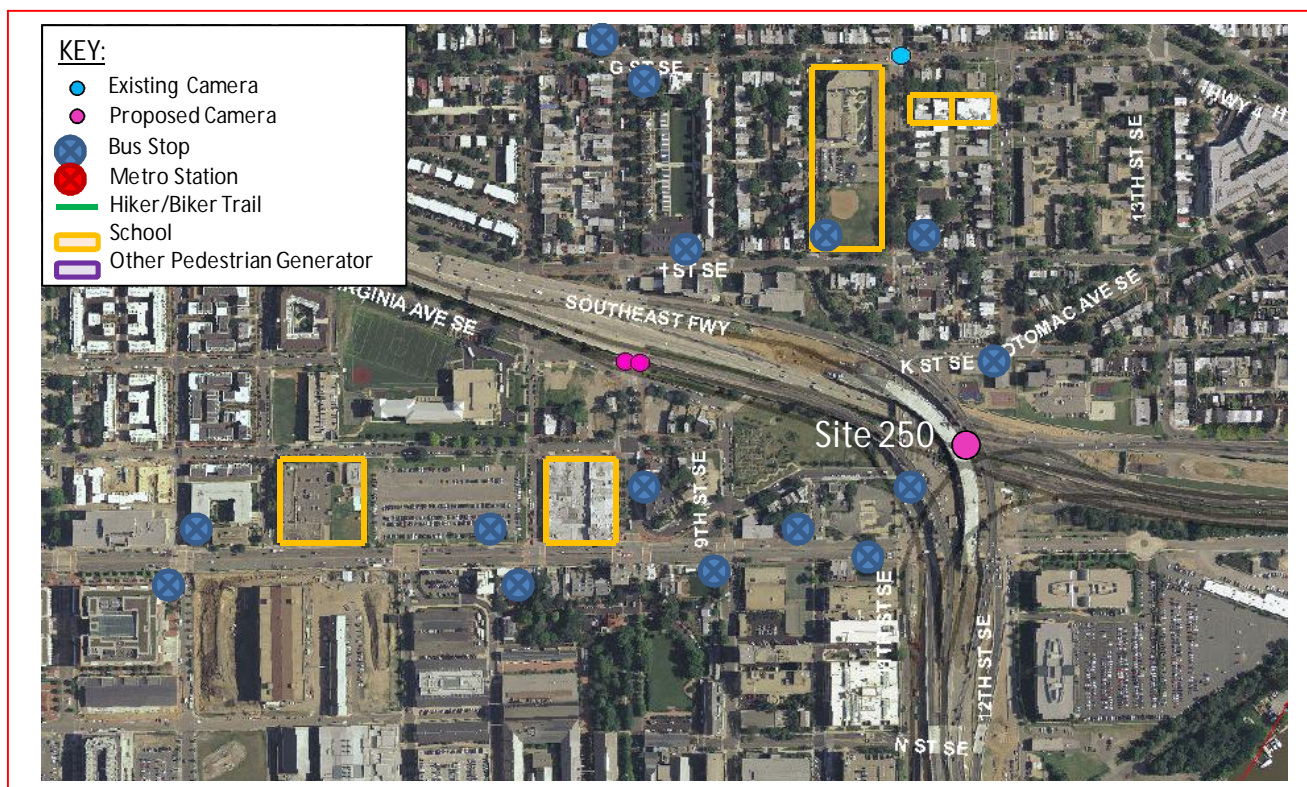
District Department of Transportation

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

### SE-SW Freeway at 8th Street Exit

#### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
1	101/103/105	6	6D	Proposed	Southeast-Southwest Freeway at 8 <sup>th</sup> Street Exit Southeast Westbound



The *proposed* speed camera is located in Ward 6 along the Southeast-Southwest Freeway at the 8<sup>th</sup> Street Exit. The Southeast-Southwest Freeway, also known as I-695, runs from I-395 then across the 11<sup>th</sup> Street Bridges to the I-295 / DC 295 junction in the Southeast. The posted speed limit is 40 MPH.

W6 - 316





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## SE-SW Freeway at 8th Street Exit

### Field Assessment Summary

Southeast-Southwest Freeway is assumed to run in an east-west direction and is classified as an interstate (I-695). The Southeast Southwest Freeway has two lanes of travel in the westbound direction. This site has the following characteristics:

- There are several bus stops in the surrounding area.
- The existing pavement is in good condition with curb and gutter drainage features.
- There is construction work zone near the site.



Looking Westbound

W6 - 317



District Department of Transportation

## SE-SW Freeway at 8th Street Exit



Looking Westbound

### Speed Data Analysis

Posted Speed Limit (MPH)	40
Mean Speed (MPH)	45
85th Percentile Speed (MPH)	53
10 MPH Pace Speed (MPH)	44-53
ADT	45,085

The mean speed is higher than the posted speed limit by 5 MPH, and the 85th percentile speed is higher than the posted speed limit by 13 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 7 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 type of collision at this location was Rear End (2 crashes). The other collision types had one crash or less each.

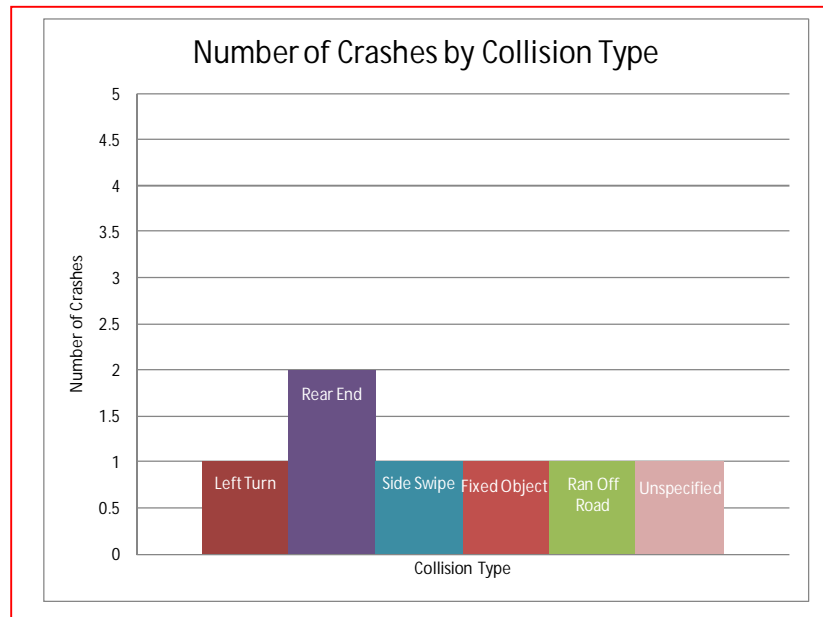




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## SE-SW Freeway at 8th Street Exit

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	2	28.6%
Truck	2 28.6%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Police/EMS	1 14.3%									



### Safety Nexus

This site presents the following safety considerations which may establish a safety 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 – The crash data analysis shows a low number of crashes at this location.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. There is construction work zone near the site.

Due to a construction work zone in the area, the speed limits in the zone are lower than the posted speed limit, and lower speed limits are desired to create a safe environment for construction workers. Further speed analysis is recommended once the freeway construction has been completed.



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## SE-SW Freeway at 8th Street Exit

Although the crash data analysis revealed a low number of crashes in this location, due to the 85<sup>th</sup> percentile speed and the proximity of the construction work zone, 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

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## SE/SW Frwy at 8th St Exit SE WB Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/03/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	1	0	0	0	4	4	15	45	62	44	12	9	4	0	200
03:00	7	0	0	0	0	8	28	90	134	132	72	21	4	1	497
04:00	79	0	0	0	3	16	90	258	465	387	143	34	5	3	1483
05:00	223	0	0	0	6	60	403	1208	844	185	43	4	1	0	2977
06:00	279	0	0	0	2	79	761	1437	543	54	4	0	0	0	3159
07:00	256	0	0	0	11	140	859	1387	465	46	5	0	0	0	3169
08:00	263	1	2	0	22	171	792	1238	491	59	6	0	0	0	3045
09:00	236	0	0	12	32	200	964	1101	397	53	14	0	0	0	3009
10:00	170	2	1	7	34	212	608	786	479	140	25	2	0	0	2466
11:00	146	0	0	0	4	66	402	740	602	224	44	5	2	0	2235
12 PM	119	0	1	3	13	65	377	786	625	217	35	6	0	0	2247
13:00	121	0	0	0	4	56	441	880	591	193	36	5	0	0	2327
14:00	141	0	0	0	13	89	484	935	574	143	31	6	0	0	2416
15:00	121	0	0	0	6	60	460	863	591	189	23	3	1	0	2317
16:00	137	0	1	3	21	162	653	871	457	143	10	2	1	0	2461
17:00	127	0	1	4	5	100	511	903	515	108	21	4	0	0	2299
18:00	101	0	0	0	5	53	455	720	488	175	28	1	0	2	2028
19:00	64	0	0	0	1	37	264	588	494	187	38	11	2	0	1686
20:00	33	0	0	0	2	25	178	389	412	204	53	4	3	1	1304
21:00	33	0	0	0	3	37	119	401	409	215	66	16	6	0	1305
22:00	44	0	0	0	1	9	127	316	377	239	73	21	7	2	1216
23:00	20	0	0	0	3	6	75	169	185	143	63	14	7	1	686
Total	2721	3	6	29	195	1655	9066	16111	10200	3480	845	168	43	10	44532

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## SE/SW Frwy at 8th St Exit SE WB Speed

WB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/04/13	7	0	0	1	1	10	50	68	120	59	25	8	2	1	352
01:00	1	0	0	0	0	7	25	53	55	37	19	2	1	1	201
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	8	0	0	1	1	17	75	121	175	96	44	10	3	2	553
Grand Total	2729	3	6	30	196	1672	9141	16232	10375	3576	889	178	46	12	45085

15th Percentile : 39 MPH  
 50th Percentile : 47 MPH  
 85th Percentile : 53 MPH  
 95th Percentile : 58 MPH

Stats  
 Mean Speed(Average) : 45 MPH  
 10 MPH Pace Speed : 44-53 MPH  
 Number in Pace : 24916  
 Percent in Pace : 55.3%  
 Number of Vehicles > 40 MPH : 37710  
 Percent of Vehicles > 40 MPH : 83.7%

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## SE/SW Frwy at 8th St Exit SE WB Volume

Start Time	Tue 03-Dec-13		Wed 04-Dec-13		Thu 05-Dec-13		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	573	121	*	*	*	121	573
12:15	*	536	99	*	*	*	99	536
12:30	*	569	79	*	*	*	79	569
12:45	*	569	53	*	*	*	53	569
01:00	*	564	55	*	*	*	55	564
01:15	*	581	55	*	*	*	55	581
01:30	*	581	46	*	*	*	46	581
01:45	*	601	45	*	*	*	45	601
02:00	49	613	*	*	*	*	49	613
02:15	46	590	*	*	*	*	46	590
02:30	57	613	*	*	*	*	57	613
02:45	48	600	*	*	*	*	48	600
03:00	71	596	*	*	*	*	71	596
03:15	102	593	*	*	*	*	102	593
03:30	153	565	*	*	*	*	153	565
03:45	171	563	*	*	*	*	171	563
04:00	200	623	*	*	*	*	200	623
04:15	311	633	*	*	*	*	311	633
04:30	463	605	*	*	*	*	463	605
04:45	509	600	*	*	*	*	509	600
05:00	620	586	*	*	*	*	620	586
05:15	771	585	*	*	*	*	771	585
05:30	810	597	*	*	*	*	810	597
05:45	776	531	*	*	*	*	776	531
06:00	792	485	*	*	*	*	792	485
06:15	790	509	*	*	*	*	790	509
06:30	796	548	*	*	*	*	796	548
06:45	781	486	*	*	*	*	781	486
07:00	807	449	*	*	*	*	807	449
07:15	741	466	*	*	*	*	741	466
07:30	784	433	*	*	*	*	784	433
07:45	837	338	*	*	*	*	837	338
08:00	791	317	*	*	*	*	791	317
08:15	776	338	*	*	*	*	776	338
08:30	736	330	*	*	*	*	736	330
08:45	742	319	*	*	*	*	742	319
09:00	770	312	*	*	*	*	770	312
09:15	732	318	*	*	*	*	732	318
09:30	744	352	*	*	*	*	744	352
09:45	763	323	*	*	*	*	763	323
10:00	666	305	*	*	*	*	666	305
10:15	672	324	*	*	*	*	672	324
10:30	586	330	*	*	*	*	586	330
10:45	542	257	*	*	*	*	542	257
11:00	581	203	*	*	*	*	581	203
11:15	550	196	*	*	*	*	550	196
11:30	531	173	*	*	*	*	531	173
11:45	573	114	*	*	*	*	573	114
Total	22240	22292	553	0	0	0	22793	22292
Combined Total	44532		553		0		45085	
Peak	07:30	04:00	12:00				07:30	04:00
Vol.	3188	2461	352				3188	2461
P.H.F.	0.952	0.972	0.727				0.952	0.972
ADT	ADT 45,085		AADT 45,085					



## Accident Summary Report (R-8)

**Corridor:** INTERSTATE 695,BN From INTERSTATE 295 I,BN TO INTERSTATE 395 INTERSTATE,BN

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

**Prepared By:** Rahul Jain

**Prepared Date:** 12/27/2012

Total Number of Accident:	7	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0	Right Angle:	0	0.0%	Fixed Object:	1	14.3%
Total Number of Injuries:	4	Left Turn:	1	14.3%	Ran Off Road:	1	14.3%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	3	Rear End:	2	28.6%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	1	14.3%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	1	Parked:	0	0.0%	Unspecified:	1	14.3%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	
07:30 ~ 09:30:				4	57.1%	Sunday:	
09:30 ~ 11:30:				0	0.0%	Monday:	
11:30 ~ 13:30:				0	0.0%	Tuesday:	
13:30 ~ 16:00:				0	0.0%	Wednesday:	
16:00 ~ 18:30:				1	14.3%	Thursday:	
18:30 ~ 07:30:				2	28.6%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				6	85.7%	Dry:	
Rain:				1	14.3%	Wet:	
Snow:				0	0.0%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				0	0.0%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				0	0.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				7	63.6%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				2	18.2%	PDO Collision:	
Taxi:				0	0.0%	<b>Light Condition</b>	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				1	9.1%	Dawn/Dusk:	
Motorcycle/Moped:				1	9.1%	Dark(Lighted):	
Bicycle:				0	0.0%	Dark(Not Lighted):	
Fixed Object:				0	0.0%	Dark(Unknown Lighting):	
Unspecified:				0	0.0%	Unspecified:	
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				0	0.0%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				0	0.0%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				3	27.3%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				8	72.7%	Unspecified:	

6 Records are not approved as of 12/27/2013 7:09:54 PM