



District Department of Transportation

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

Connecticut Avenue SB at Nebraska Avenue NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	203	3	3F/3G	Planned	Connecticut Avenue Southbound at Nebraska Avenue Northwest



The *planned* speed camera will be located in Ward 3 at the intersection of Connecticut Avenue and Nebraska Avenue Northwest in the southbound direction. Connecticut Avenue runs between Western Avenue Northwest to the north and H Street Northwest to the south. The posted speed limit is 30 MPH.

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District Department of Transportation

Connecticut Avenue SB at Nebraska Avenue NW

Field Assessment Summary

Connecticut Avenue is assumed to run in a North-South direction, and is classified as a principal arterial. Connecticut Avenue has two through lanes and one left turn lane in each direction. Nebraska Avenue is also classified as a principal arterial and has two through lanes in each direction. This site has the following characteristics:

- This site is located in a residential and commercial area with retail stores, apartment buildings, houses, driveways, and sidewalks with curb, gutter, and drainage inlets on both sides.
- On-street parking is allowed along Connecticut Avenue only.
- The existing pavement is in good condition.
- The intersection has a traffic signal as well as crosswalks and pedestrian signals for all legs.
- There are bus stops on the northwest and southeast corners of the intersection.
- At this location, there are heavy northbound and southbound traffic volumes along Connecticut Avenue.



Looking Southbound



District Department of Transportation

Connecticut Avenue SB at Nebraska Avenue NW



Looking Northbound

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	20
85th Percentile Speed (MPH)	30
10 MPH Pace Speed	6-15 MPH
ADT	8,540

The mean speed is 10 MPH lower than the posted speed limit, and the 85th percentile speed is the same as 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 81 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 Left Turn (17 crashes), Rear End (15 crashes), Side Swipe (14 crashes), Unspecified (12 crashes), and Right Angle (10 crashes). The other collision types had five crashes or less each.

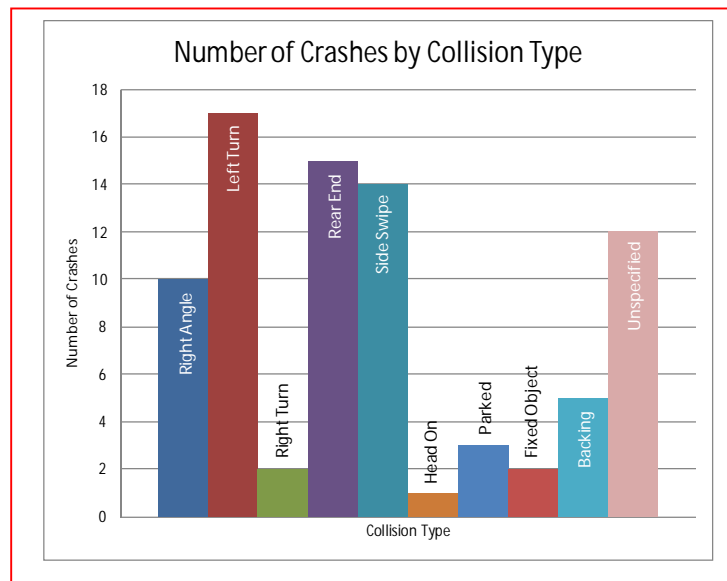
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Connecticut Avenue SB at Nebraska Avenue NW

Severity			Weather			Surface condition			Light Condition		
Total	81										
Fatal	0	0.0%	Clear	68	84.0%	Dry	67	82.7%	Day	54	66.7%
Injury	23	28.4%	Rain	10	12.3%	Wet	12	14.8%	Night	20	24.7%
Taxi	16	19.8%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	9	11.1%									

There was an elevated number of speed-related crashes at this location, including Left Turn, Rear End, and Side Swipe collisions. There were also an elevated number of injury-related crashes at this intersection.



The Connecticut Avenue Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011, according to the report *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*¹.

Safety Nexus

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

¹ DDOT, *TRAFFIC SAFETY STATISTICS REPORT FOR THE DISTRICT OF COLUMBIA (2009-2011)*, pg. 80.



District Department of Transportation

Connecticut Avenue SB at Nebraska Avenue NW

1. Speed Data – The speed data analysis showed travel speeds being the same as or lower than the posted speed limit.
2. Crash Data – There was an elevated number of speed-related crashes at this location, including Left Turn, Rear End, and Side Swipe collisions, and well as injury-related crashes. The Connecticut Avenue Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. This site is located in a commercial and residential area.
 - b. There are multiple bus stops in the area which generate pedestrian activity

Although the speed data analysis showed travel speeds to be the same as or lower than the posted speed limit, due to the elevated number of speed-related and injury-related crashes, and the specific site characteristics and pedestrian generators, 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

www.sammateng.com

Connecticut Ave SB at Nebraska Ave NW Speed

SB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total
11/05/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	5	0	1	10	10	4	2	0	0	0	0	0	0	0	0	32
02:00	5	3	2	7	6	16	6	0	0	0	0	0	0	0	0	45
03:00	8	3	6	33	37	22	4	0	2	0	0	0	0	0	0	115
04:00	29	9	30	67	125	43	8	1	0	0	0	0	0	0	0	312
05:00	149	45	66	74	88	49	3	0	0	0	0	0	0	0	0	474
06:00	128	58	84	112	62	30	4	2	0	0	0	0	0	0	0	480
07:00	148	16	3	0	0	0	0	0	0	0	0	0	0	0	0	167
08:00	181	113	125	104	60	14	4	1	1	0	0	0	0	0	0	603
09:00	192	87	120	122	62	28	3	1	0	0	0	0	0	0	0	615
10:00	202	105	98	122	74	20	7	0	0	0	0	0	0	0	0	628
11:00	160	84	125	96	76	18	2	0	0	0	0	0	0	0	0	561
12 PM	97	49	107	128	105	31	6	0	0	0	0	0	0	0	0	523
13:00	88	75	140	131	76	30	5	0	0	0	0	0	0	0	0	545
14:00	126	82	97	104	70	17	4	0	0	0	0	0	0	0	0	500
15:00	129	71	93	113	66	11	2	0	0	0	0	0	0	0	0	485
16:00	131	83	90	93	39	12	2	0	0	0	0	0	0	0	0	450
17:00	168	65	94	76	28	7	1	0	0	0	0	0	0	0	0	439
18:00	111	75	82	106	48	7	1	0	0	0	0	0	0	0	0	430
19:00	56	26	80	115	72	19	2	0	0	0	0	0	0	0	0	370
20:00	31	22	51	113	54	14	1	1	0	0	0	0	0	0	0	287
21:00	32	16	33	67	60	20	4	0	0	0	0	0	0	0	0	232
22:00	11	12	22	40	49	15	0	1	0	0	0	0	0	0	0	150
23:00	5	2	5	14	25	7	1	1	0	0	0	0	0	0	0	60
Total	2192	1101	1554	1847	1292	434	72	8	3	0	0	0	0	0	0	8503

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Connecticut Ave SB at Nebraska Ave NW Speed

SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/06/13	1	0	3	12	15	5	1	0	0	0	0	0	0	0	37
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	0	3	12	15	5	1	0	0	0	0	0	0	0	37
Grand Total	2193	1101	1557	1859	1307	439	73	8	3	0	0	0	0	0	8540

15th Percentile : 7 MPH
 50th Percentile : 19 MPH
 85th Percentile : 30 MPH
 95th Percentile : 35 MPH

Stats
 Mean Speed(Average) : 20 MPH
 10 MPH Pace Speed : 6-15 MPH
 Number in Pace : 2843
 Percent in Pace : 33.3%
 Number of Vehicles > 30 MPH : 1493
 Percent of Vehicles > 30 MPH : 17.5%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Connecticut Ave SB at Nebraska Ave NW Volume

Start Time	Tue	05-Nov-13	Wed	06-Nov-13	Thu	07-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	121	10	*	*	*	10	121
12:15	*	130	13	*	*	*	13	130
12:30	*	145	7	*	*	*	7	145
12:45	*	127	7	*	*	*	7	127
01:00	9	125	*	*	*	*	9	125
01:15	6	145	*	*	*	*	6	145
01:30	11	142	*	*	*	*	11	142
01:45	6	133	*	*	*	*	6	133
02:00	11	114	*	*	*	*	11	114
02:15	8	124	*	*	*	*	8	124
02:30	9	128	*	*	*	*	9	128
02:45	17	134	*	*	*	*	17	134
03:00	18	133	*	*	*	*	18	133
03:15	13	117	*	*	*	*	13	117
03:30	35	111	*	*	*	*	35	111
03:45	49	124	*	*	*	*	49	124
04:00	41	116	*	*	*	*	41	116
04:15	70	105	*	*	*	*	70	105
04:30	94	123	*	*	*	*	94	123
04:45	107	106	*	*	*	*	107	106
05:00	125	109	*	*	*	*	125	109
05:15	150	114	*	*	*	*	150	114
05:30	135	107	*	*	*	*	135	107
05:45	64	109	*	*	*	*	64	109
06:00	156	125	*	*	*	*	156	125
06:15	177	105	*	*	*	*	177	105
06:30	111	85	*	*	*	*	111	85
06:45	36	115	*	*	*	*	36	115
07:00	41	109	*	*	*	*	41	109
07:15	54	98	*	*	*	*	54	98
07:30	26	84	*	*	*	*	26	84
07:45	46	79	*	*	*	*	46	79
08:00	129	67	*	*	*	*	129	67
08:15	166	66	*	*	*	*	166	66
08:30	164	83	*	*	*	*	164	83
08:45	144	71	*	*	*	*	144	71
09:00	136	59	*	*	*	*	136	59
09:15	165	53	*	*	*	*	165	53
09:30	153	69	*	*	*	*	153	69
09:45	161	51	*	*	*	*	161	51
10:00	151	52	*	*	*	*	151	52
10:15	149	47	*	*	*	*	149	47
10:30	171	33	*	*	*	*	171	33
10:45	157	18	*	*	*	*	157	18
11:00	147	18	*	*	*	*	147	18
11:15	142	20	*	*	*	*	142	20
11:30	150	14	*	*	*	*	150	14
11:45	122	8	*	*	*	*	122	8
Total	4032	4471	37	0	0	0	4069	4471
Combined Total	8503		37		0		8540	
Peak Vol.	09:45 632	01:00 545	12:00 37				09:45 632	01:00 545
P.H.F.	0.924	0.940	0.712				0.924	0.940
ADT	ADT 8,540		AADT 8,540					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: CONNECTICUT AVE,NW From CHEVY CHASE PKWY,NW TO FESSENDEN ST,NW

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:	81	Right Angle:	10	12.3%	Fixed Object:	2	2.5%
Total Number of Fatalities:	0	Left Turn:	17	21.0%	Ran Off Road:	0	0.0%
Total Number of Injuries:	27	Right Turn:	2	2.5%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	15	18.5%	Backing:	5	6.2%
Total Number of NonDisabling Injuries:	6	Side Swiped:	14	17.3%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	1	1.2%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	3	3.7%	Unspecified:	12	14.8%
Total Number of Motorcycles Involved:	1						

Time of Day	#ACC	%	Day of week	#ACC	%
07:30 ~ 09:30:	12	14.8%	Sunday:	7	8.6%
09:30 ~ 11:30:	3	3.7%	Monday:	5	6.2%
11:30 ~ 13:30:	9	11.1%	Tuesday:	16	19.8%
13:30 ~ 16:00:	10	12.3%	Wednesday:	12	14.8%
16:00 ~ 18:30:	24	29.6%	Thursday:	23	28.4%
18:30 ~ 07:30:	23	28.4%	Friday:	13	16.0%
Unspecified:	0	0.0%	Saturday:	5	6.2%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	68	84.0%	Dry:	67	82.7%
Rain:	10	12.3%	Wet:	12	14.8%
Snow:	0	0.0%	Snow/Ice:	0	0.0%
Sleet/Hail:	0	0.0%	Slush:	0	0.0%
Fog/Mist:	1	1.2%	Water/Sand:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%	Repairing:	0	0.0%
Unspecified:	2	2.5%	Unspecified:	2	2.5%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	117	70.9%	Fatal Collision:	0	0.0%
Bus:	9	5.5%	Injury Collision:	23	28.4%
Truck:	9	5.5%	PDO Collision:	58	71.6%
Taxi:	16	9.7%			
Minivan:	0	0.0%	Light Condition	#ACC	%
Police/Emergency Vehicle:	2	1.2%	Daylight:	54	66.7%
Motorcycle/Moped:	2	1.2%	Dawn/Dusk:	3	3.7%
Bicycle:	0	0.0%	Dark(Lighted):	20	24.7%
Fixed Object:	0	0.0%	Dark(Not Lighted):	0	0.0%
Unspecified:	10	6.1%	Dark(Unknown Lighting):	0	0.0%
			Unspecified:	4	4.9%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	0.6%	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:	32	19.4%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	1	0.6%	Not in Crosswalk:	0	0.0%
Roadway:	2	1.2%	From Between Parked Cars:	0	0.0%
Unspecified:	129	78.2%	Unspecified:	0	0.0%

49 Records are not approved as of 10/6/2013 1:01:06 PM