



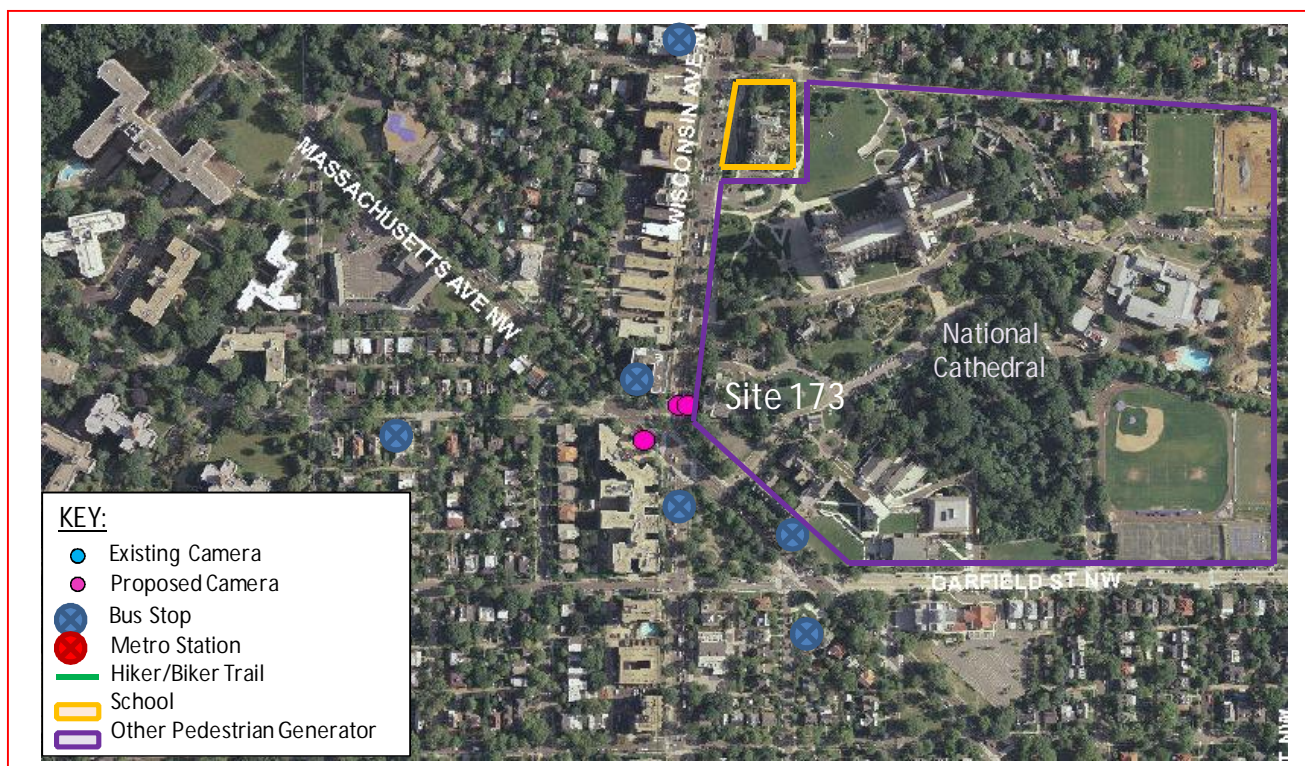
District Department of Transportation

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

3100 Block Wisconsin Avenue NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
2	204	3	3C	Proposed	3100 Block Wisconsin Avenue Northwest Southbound



This *proposed* speed camera will be located in Ward 3 at the 3100 block of Wisconsin Avenue Northwest in the southbound direction. Wisconsin Avenue runs from Western Avenue Northwest to the north and Whitehurst Freeway Northwest to the south. The posted speed limit is 30 MPH.

W3 - 403





District Department of Transportation

3100 Block Wisconsin Avenue NW

Field Assessment Summary

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

- This is a residential area with many apartment buildings and houses in the surrounding area and on eastern side of the road.
- There is one school in the area: National Cathedral School.
- There is one other pedestrian generator in the area: The National Cathedral.
- There is on-street parking and sidewalk with curb and gutter on both sides of the street.
- There are bus stops on both sides of the street.
- The existing pavement is in good condition.



Northbound

W3 - 404



District Department of Transportation

3100 Block Wisconsin Avenue NW



Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	13
85th Percentile Speed (MPH)	22
10 MPH Pace Speed	4-13
ADT	11,901

The mean speed is lower than the posted speed limit by 17 MPH and the 85th percentile speed is lower than the posted speed limit by 8 MPH at this location.

Crash Data Analysis

Between January 1, 2010 and December 31, 2012, there were a total of 65 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 Side Swipe (18 crashes) and Rear End (15 crashes). Crash data shows one (1) crash where vehicular speeding was the contributing factor.

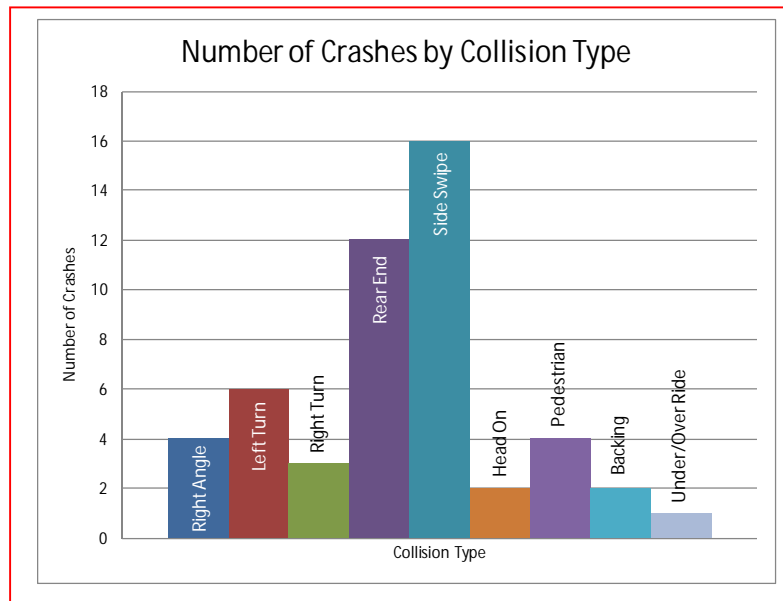
W3 - 405



District Department of Transportation

3100 Block Wisconsin Avenue NW

Severity			Weather			Surface condition			Light Condition		
Total	65										
Fatal	0	0.0%	Clear	51	78.5%	Dry	53	81.5%	Day	37	56.9%
Injury	14	21.5%	Rain	12	18.5%	Wet	11	16.9%	Night	25	38.5%
Taxi	13	20.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Bus	14	21.5%									



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 traffic safety:

1. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.

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



District Department of Transportation

3100 Block Wisconsin Avenue NW

2. Crash Data – There were an elevated number of speed-related crashes at this location, including side swipe and rear end crashes as well as a high frequency (14 crashes) of 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 many apartment buildings and houses in the surrounding area and along the eastern side of the street.
 - b. There is one school in this area: National Cathedral School.
 - c. There is one other pedestrian generator in this area: The National Cathedral.
 - d. There are multiple bus stops in the area which generate pedestrian activity.

Although the speed data analysis showed the mean and 85th percentile speeds to be lower than the posted speed limit, due to the elevated number of speed-related crashes and 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 - 407

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3100 block of Wisconsin Avenue NW SB 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
11/07/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	62	10	8	10	5	1	1	0	0	0	0	0	0	0	97
04:00	65	12	25	26	8	4	1	0	0	0	0	0	0	0	141
05:00	170	9	46	47	33	23	3	0	0	0	0	0	0	0	331
06:00	303	22	119	140	70	27	3	1	0	0	0	0	0	0	685
07:00	406	73	100	121	57	6	0	0	0	0	0	0	0	0	763
08:00	373	70	122	74	26	4	0	0	0	0	0	0	0	0	669
09:00	409	63	125	116	39	6	1	0	0	0	0	0	0	0	759
10:00	406	41	124	92	52	17	3	2	0	0	0	0	0	0	737
11:00	410	58	102	87	41	16	3	0	1	0	0	0	0	0	718
12 PM	414	47	85	72	53	24	7	1	1	0	0	0	0	0	704
13:00	447	33	86	88	51	20	2	0	0	0	0	0	0	0	727
14:00	357	64	98	53	10	5	0	0	0	0	0	0	0	0	587
15:00	381	56	56	22	8	1	0	0	0	0	0	0	0	0	524
16:00	335	73	88	27	3	1	0	0	0	0	0	0	0	0	527
17:00	345	53	59	9	4	0	0	0	0	0	0	0	0	0	470
18:00	367	64	91	26	4	0	0	0	0	0	0	0	0	0	552
19:00	376	65	71	10	5	1	0	0	0	0	0	0	0	0	528
20:00	324	73	46	19	4	1	0	0	0	0	0	0	0	0	467
21:00	339	75	53	15	6	1	0	0	0	0	0	0	0	0	489
22:00	282	66	69	19	7	1	0	0	0	0	0	0	0	0	444
23:00	201	66	73	10	11	2	0	0	0	0	0	0	0	0	363
Total	6772	1093	1646	1083	497	161	24	4	2	0	0	0	0	0	11282

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3100 block of Wisconsin Avenue NW SB 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
11/08/13	169	44	47	20	8	2	1	1	0	0	0	0	0	0	292
01:00	108	35	27	14	2	1	0	0	0	0	0	0	0	0	187
02:00	89	17	25	3	3	2	1	0	0	0	0	0	0	0	140
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	366	96	99	37	13	5	2	1	0	0	0	0	0	0	619
Grand Total	7138	1189	1745	1120	510	166	26	5	2	0	0	0	0	0	11901

15th Percentile : 5 MPH
50th Percentile : 10 MPH
85th Percentile : 22 MPH
95th Percentile : 29 MPH

Stats
Mean Speed(Average) : 13 MPH
10 MPH Pace Speed : 4-13 MPH
Number in Pace : 6999
Percent in Pace : 58.8%
Number of Vehicles > 30 MPH : 511
Percent of Vehicles > 30 MPH : 4.3%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

3100 block of Wisconsin Avenue NW SB Volume

Start Time	Thu A.M.	07-Nov-13 P.M.	Fri A.M.	08-Nov-13 P.M.	Sat A.M.	09-Nov-13 P.M.	Daily Average	
							A.M.	P.M.
12:00	*	174	76	*	*	*	76	174
12:15	*	179	83	*	*	*	83	179
12:30	*	164	73	*	*	*	73	164
12:45	*	187	60	*	*	*	60	187
01:00	*	202	51	*	*	*	51	202
01:15	*	184	61	*	*	*	61	184
01:30	*	168	42	*	*	*	42	168
01:45	*	173	33	*	*	*	33	173
02:00	*	144	60	*	*	*	60	144
02:15	*	143	32	*	*	*	32	143
02:30	*	131	20	*	*	*	20	131
02:45	*	169	28	*	*	*	28	169
03:00	18	134	*	*	*	*	18	134
03:15	19	130	*	*	*	*	19	130
03:30	29	143	*	*	*	*	29	143
03:45	31	117	*	*	*	*	31	117
04:00	26	110	*	*	*	*	26	110
04:15	31	138	*	*	*	*	31	138
04:30	33	145	*	*	*	*	33	145
04:45	51	134	*	*	*	*	51	134
05:00	51	148	*	*	*	*	51	148
05:15	70	115	*	*	*	*	70	115
05:30	94	103	*	*	*	*	94	103
05:45	116	104	*	*	*	*	116	104
06:00	139	117	*	*	*	*	139	117
06:15	146	137	*	*	*	*	146	137
06:30	179	161	*	*	*	*	179	161
06:45	221	137	*	*	*	*	221	137
07:00	239	128	*	*	*	*	239	128
07:15	231	149	*	*	*	*	231	149
07:30	161	137	*	*	*	*	161	137
07:45	132	114	*	*	*	*	132	114
08:00	150	138	*	*	*	*	150	138
08:15	146	114	*	*	*	*	146	114
08:30	189	113	*	*	*	*	189	113
08:45	184	102	*	*	*	*	184	102
09:00	198	129	*	*	*	*	198	129
09:15	201	129	*	*	*	*	201	129
09:30	194	111	*	*	*	*	194	111
09:45	166	120	*	*	*	*	166	120
10:00	171	117	*	*	*	*	171	117
10:15	183	99	*	*	*	*	183	99
10:30	177	118	*	*	*	*	177	118
10:45	206	110	*	*	*	*	206	110
11:00	180	91	*	*	*	*	180	91
11:15	196	92	*	*	*	*	196	92
11:30	159	98	*	*	*	*	159	98
11:45	183	82	*	*	*	*	183	82
Total	4900	6382	619	0	0	0	5519	6382
Combined Total	11282		619		0		11901	
Peak	06:30	00:45	12:00				06:30	00:45
Vol.	870	741	292				870	741
P.H.F.	0.910	0.917	0.880				0.910	0.917
ADT	ADT 11,901		AADT 11,901					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: WISCONSIN AVE,NW From CATHEDRAL AVE,NW TO GARFIELD ST,NW

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

Prepared By: Rahul Jain

Prepared Date: 11/24/2013

Total Number of Accident:	65	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	10	15.4%	Fixed Object:	0	0.0%
Total Number of Injuries:	20	Left Turn:	7	10.8%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	2	Right Turn:	5	7.7%	Ped. Involved:	5	7.7%
Total Number of NonDisabling Injuries:	3	Rear End:	15	23.1%	Backing:	2	3.1%
Total Number of Pedestrians Involved:	5	Side Swiped:	18	27.7%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	1	Head On:	2	3.1%	Under/Over Ride:	1	1.5%
Total Number of Motorcycles Involved:	0	Parked:	0	0.0%	Unspecified:	0	0.0%

Time of Day	#ACC	%	Day of week	#ACC	%
07:30 ~ 09:30:	3	4.6%	Sunday:	4	6.2%
09:30 ~ 11:30:	7	10.8%	Monday:	8	12.3%
11:30 ~ 13:30:	6	9.2%	Tuesday:	10	15.4%
13:30 ~ 16:00:	9	13.8%	Wednesday:	13	20.0%
16:00 ~ 18:30:	12	18.5%	Thursday:	10	15.4%
18:30 ~ 07:30:	28	43.1%	Friday:	13	20.0%
Unspecified:	0	0.0%	Saturday:	7	10.8%

Weather Condition	#ACC	%	Surface Condition	#ACC	%
Clear:	51	78.5%	Dry:	53	81.5%
Rain:	12	18.5%	Wet:	11	16.9%
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:	2	3.1%	Unspecified:	1	1.5%

Type of Vehicle	#VEH	%	Accident Severity Type	#ACC	%
Passenger Car:	88	66.2%	Fatal Collision:	0	0.0%
Bus:	14	10.5%	Injury Collision:	14	21.5%
Truck:	6	4.5%	PDO Collision:	51	78.5%
Taxi:	13	9.8%	Light Condition	#ACC	%
Minivan:	0	0.0%	Daylight:	37	56.9%
Police/Emergency Vehicle:	4	3.0%	Dawn/Dusk:	2	3.1%
Motorcycle/Moped:	0	0.0%	Dark(Lighted):	25	38.5%
Bicycle:	1	0.8%	Dark(Not Lighted):	0	0.0%
Fixed Object:	0	0.0%	Dark(Unknown Lighting):	0	0.0%
Unspecified:	7	5.3%	Unspecified:	1	1.5%

Contributing Factor	#VEH	%	Pedestrian Actions	#ACC	%
Driver: Speed:	1	0.8%	In Crosswalk with Signal:	2	40.0%
Driver: Alcohol/Drug:	1	0.8%	In Crosswalk against Signal:	1	20.0%
Driver: Electronic Device:	0	0.0%	In Crosswalk no Signal:	0	0.0%
Driver: Others:	34	25.6%	In Unmarked Crosswalk:	0	0.0%
Vehicle:	0	0.0%	Not in Crosswalk:	2	40.0%
Roadway:	0	0.0%	From Between Parked Cars:	0	0.0%
Unspecified:	97	72.9%	Unspecified:	0	0.0%

35 Records are not approved as of 11/24/2013 2:59:19 PM