



District Department of Transportation

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

2800 Block 20th Street NE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	503	5	5C	Proposed	2800 Block 20 th Street Northeast Northbound



This *proposed* speed camera will be located in Ward 5 between on block 2800 of 20th Street Northeast in the northbound direction. 20th Street runs between Eastern Avenue Northeast to the north and Everts Street Northeast to the south. The posted speed limit is 15 MPH.

W5 - 377





District Department of Transportation

2800 Block 20th Street NE

Field Assessment Summary

20th Street Northeast is assumed to run in the north-south direction, and is classified as a collector road. 20th Street has one travel lane in each direction with no centerline pavement markings. This site has the following characteristics:

- This is a residential area with houses and driveways.
- Langdon Park is on the west side of the street and the Langdon Park Community Center is on the east side of the street.
- There are two schools in the area: Langdon Education Campus, and the Geneva Ivey Day School.
- There is sidewalk and on-street parking on both sides of the street.
- There is a midblock crosswalk by the recreation center and a traffic signal with pedestrian signals and crosswalks at Franklin Street.
- The pavement is in good condition and there is curb and gutter with drainage inlets. There is a steep slope downgrade northbound.



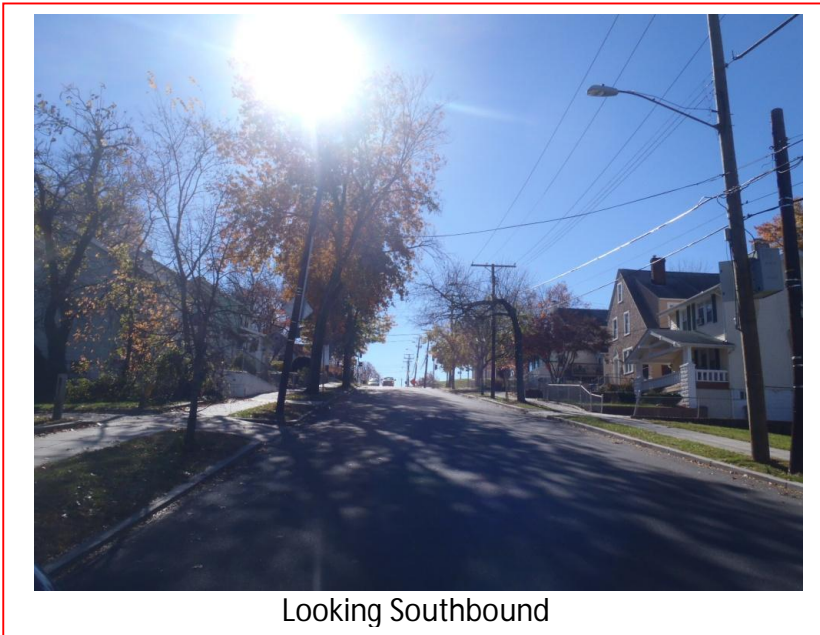
Looking Northbound

W5 - 378



District Department of Transportation

2800 Block 20th Street NE



Looking Southbound

Speed Data Analysis

Posted Speed Limit (MPH)	15
Mean Speed (MPH)	12
85th Percentile Speed (MPH)	18
10 MPH Pace Speed	6-15
ADT	1,203

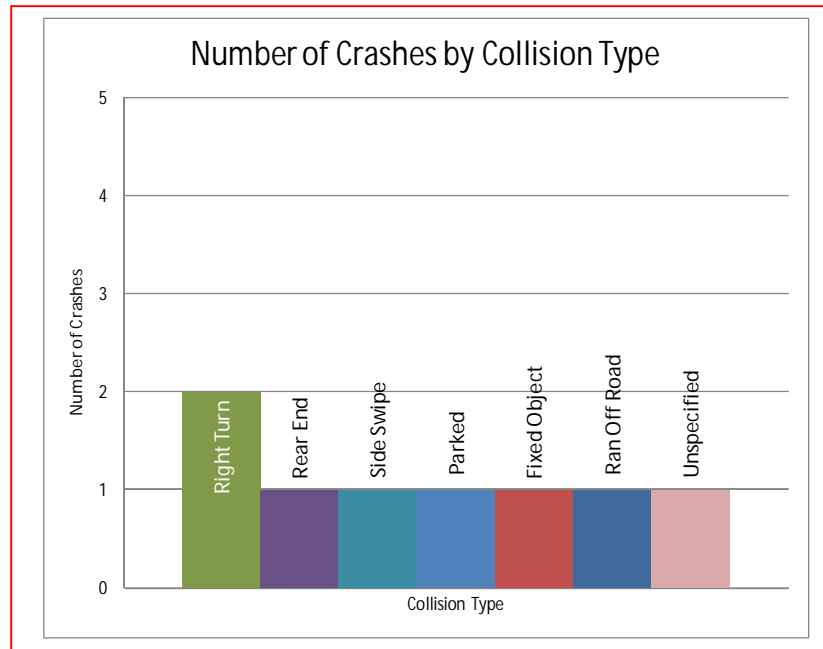
The mean speed is lower than the posted speed limit by 3 MPH and the 85th percentile speed is higher than the posted speed by 3 MPH at this location.

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 eight crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common type of collision at this location was Right Angle with two crashes. Each of the other collision types had one crash or less.



Severity			Weather			Surface condition			Light Condition		
Total	8										
Fatal	0	0.0%	Clear	7	87.5%	Dry	7	87.5%	Day	5	62.5%
Injury	2	25.0%	Rain	1	12.5%	Wet	1	12.5%	Night	3	37.5%
Bus	2	25.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Truck	0	0.0%									



Safety Nexus

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

1. Speed Data – The 85th percentile speed is 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. This is a residential area with houses and driveways.
 - b. There are two schools in the area: Langdon Education Campus, and the Geneva Ivey Day School.
 - c. Langdon Park is on the west side of the street and the Langdon Park Community Center is on the east side of the street which generate pedestrian and bicycle activity.
 - d. There are several bus stops in the area which generate pedestrian activity.



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2800 Block 20th Street NE

- e. There is on-street parking on both sides of the street.

Although the crash data analysis showed a low number of crashes, the 85th percentile speed was higher than the posted speed limit. Too, the residential area coupled with the proximity of the site to the recreation area and the schools provides a location with multiple pedestrian generators and multiple opportunities for vehicle-pedestrian conflicts. Due to the specific site characteristics, the proximity to recreation area and schools, and the 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

2800 block of 20th St NE 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
11/13/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	0	1	2	0	1	0	0	0	0	0	0	0	0	0	4
03:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5
04:00	3	0	2	0	0	0	0	0	0	0	0	0	0	0	5
05:00	6	2	3	1	0	0	0	0	0	0	0	0	0	0	12
06:00	40	14	6	2	0	0	0	0	0	0	0	0	0	0	62
07:00	71	29	12	3	2	0	0	0	0	0	0	0	0	0	117
08:00	55	35	24	1	0	0	0	0	0	0	0	0	0	0	115
09:00	33	29	7	1	0	0	0	0	0	0	0	0	0	0	70
10:00	37	21	3	1	0	0	0	0	0	0	0	0	0	0	62
11:00	24	16	12	0	1	0	0	0	0	0	0	0	0	0	53
12 PM	44	24	10	1	0	0	0	0	0	0	0	0	0	0	79
13:00	48	19	6	0	0	0	0	0	0	0	0	0	0	0	73
14:00	60	15	3	0	0	1	0	0	0	0	0	0	0	0	79
15:00	71	31	4	2	0	0	0	0	0	0	0	0	0	0	108
16:00	51	26	13	2	1	0	0	0	0	0	0	0	0	0	93
17:00	62	31	2	0	0	0	0	0	0	0	0	0	0	0	95
18:00	34	17	4	0	0	0	0	0	0	0	0	0	0	0	55
19:00	21	3	1	0	0	0	0	0	0	0	0	0	0	0	25
20:00	8	6	2	0	1	0	0	0	0	0	0	0	0	0	17
21:00	7	10	2	0	0	0	0	0	0	0	0	0	0	0	19
22:00	7	5	7	0	0	0	0	0	0	0	0	0	0	0	19
23:00	7	3	3	1	0	0	0	0	0	0	0	0	0	0	14
Total	693	338	128	15	6	1	0	0	0	0	0	0	0	0	1181

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2800 block of 20th St NE NB Speed

NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/14/13	5	6	3	0	0	0	0	0	0	0	0	0	0	0	14
01:00	3	3	2	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	9	5	0	0	0	0	0	0	0	0	0	0	0	22
Grand Total	701	347	133	15	6	1	0	0	0	0	0	0	0	0	1203

15th Percentile : 5 MPH
 50th Percentile : 10 MPH
 85th Percentile : 18 MPH
 95th Percentile : 22 MPH

Stats
 Mean Speed(Average) : 12 MPH
 10 MPH Pace Speed : 6-15 MPH
 Number in Pace : 715
 Percent in Pace : 59.4%
 Number of Vehicles > 15 MPH : 325
 Percent of Vehicles > 15 MPH : 27.0%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

2800 block of 20th St NE NB Volume

Start Time	Wed 13-Nov-13		Thu 14-Nov-13		Fri 15-Nov-13		Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	16	7	*	*	*	7	16
12:15	*	24	1	*	*	*	1	24
12:30	*	18	3	*	*	*	3	18
12:45	*	21	3	*	*	*	3	21
01:00	*	17	3	*	*	*	3	17
01:15	*	23	1	*	*	*	1	23
01:30	*	13	4	*	*	*	4	13
01:45	*	20	0	*	*	*	0	20
02:00	1	20	*	*	*	*	1	20
02:15	0	23	*	*	*	*	0	23
02:30	1	14	*	*	*	*	1	14
02:45	2	22	*	*	*	*	2	22
03:00	2	19	*	*	*	*	2	19
03:15	0	28	*	*	*	*	0	28
03:30	3	31	*	*	*	*	3	31
03:45	0	30	*	*	*	*	0	30
04:00	1	21	*	*	*	*	1	21
04:15	1	22	*	*	*	*	1	22
04:30	2	24	*	*	*	*	2	24
04:45	1	26	*	*	*	*	1	26
05:00	0	24	*	*	*	*	0	24
05:15	1	19	*	*	*	*	1	19
05:30	6	33	*	*	*	*	6	33
05:45	5	19	*	*	*	*	5	19
06:00	11	20	*	*	*	*	11	20
06:15	20	18	*	*	*	*	20	18
06:30	13	11	*	*	*	*	13	11
06:45	18	6	*	*	*	*	18	6
07:00	15	4	*	*	*	*	15	4
07:15	19	7	*	*	*	*	19	7
07:30	41	6	*	*	*	*	41	6
07:45	42	8	*	*	*	*	42	8
08:00	39	2	*	*	*	*	39	2
08:15	22	3	*	*	*	*	22	3
08:30	30	3	*	*	*	*	30	3
08:45	24	9	*	*	*	*	24	9
09:00	27	8	*	*	*	*	27	8
09:15	19	1	*	*	*	*	19	1
09:30	11	3	*	*	*	*	11	3
09:45	13	7	*	*	*	*	13	7
10:00	18	5	*	*	*	*	18	5
10:15	15	6	*	*	*	*	15	6
10:30	13	4	*	*	*	*	13	4
10:45	16	4	*	*	*	*	16	4
11:00	15	4	*	*	*	*	15	4
11:15	9	3	*	*	*	*	9	3
11:30	17	5	*	*	*	*	17	5
11:45	12	2	*	*	*	*	12	2
Total	505	676	22	0	0	0	527	676
Combined Total	1181		22		0		1203	
Peak	07:30	03:15	12:00				07:30	03:15
Vol.	144	110	14				144	110
P.H.F.	0.857	0.887	0.500				0.857	0.887
ADT	ADT 1,203		AADT 1,203					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: 20TH ST,NE From HAMLIN ST,NE TO FRANKLIN ST,NE

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

Prepared By: Rahul Jain

Prepared Date: 9/16/2013

		Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Accident:	8	Right Angle:	0	0.0%	Fixed Object:	1	12.5%
Total Number of Fatalities:	0	Left Turn:	0	0.0%	Ran Off Road:	1	12.5%
Total Number of Injuries:	3	Right Turn:	2	25.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	1	12.5%	Backing:	0	0.0%
Total Number of NonDisabling Injuries:	0	Side Swiped:	1	12.5%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	1	12.5%	Unspecified:	1	12.5%
Total Number of Motorcycles Involved:	0						

Time of Day	#ACC	%
07:30 ~ 09:30:	2	25.0%
09:30 ~ 11:30:	1	12.5%
11:30 ~ 13:30:	0	0.0%
13:30 ~ 16:00:	2	25.0%
16:00 ~18:30:	0	0.0%
18:30 ~ 07:30:	3	37.5%
Unspecified:	0	0.0%

Day o fweek	#ACC	%
Sunday:	1	12.5%
Monday:	1	12.5%
Tuesday:	2	25.0%
Wednesday:	0	0.0%
Thursday:	3	37.5%
Friday:	1	12.5%
Saturday:	0	0.0%

Weather Condition	#ACC	%
Clear:	7	87.5%
Rain:	1	12.5%
Snow:	0	0.0%
Sleet/Hail:	0	0.0%
Fog/Mist:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%
Unspecified:	0	0.0%

Surface Condition	#ACC	%
Dry:	7	87.5%
Wet:	1	12.5%
Snow/Ice:	0	0.0%
Slush:	0	0.0%
Water/Sand:	0	0.0%
Repairing:	0	0.0%
Unspecified:	0	0.0%

Type of Vehicle	#VEH	%
Passenger Car:	9	64.3%
Bus:	2	14.3%
Truck:	0	0.0%
Taxi:	0	0.0%
Minivan:	0	0.0%
Police/Emergency Vehicle:	0	0.0%
Motorcycle/Moped:	0	0.0%
Bicycle:	0	0.0%
Fixed Object:	0	0.0%
Unspecified:	3	21.4%

Accident Severity Type	#ACC	%
Fatal Collision:	0	0.0%
Injury Collision:	2	25.0%
PDO Collision:	6	75.0%

Light Condition	#ACC	%
Daylight:	5	62.5%
Dawn/Dusk:	0	0.0%
Dark(Lighted):	3	37.5%
Dark(Not Lighted):	0	0.0%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	0	0.0%

Contributing Factor	#VEH	%
Driver: Speed:	0	0.0%
Driver: Alcohol/Drug:	0	0.0%
Driver: Electronic Device:	0	0.0%
Driver: Others:	4	28.6%
Vehicle:	0	0.0%
Roadway:	0	0.0%
Unspecified:	10	71.4%

Pedestrian Actions	#ACC	%
In Crosswalk with Signal:	0	0.0%
In Crosswalk against Signal:	0	0.0%
In Crosswalk no Signal:	0	0.0%
In Unmarked Crosswalk:	0	0.0%
Not in Crosswalk:	0	0.0%
From Between Parked Cars:	0	0.0%
Unspecified:	0	0.0%

7 Records are not approved as of 9/16/2013 7:57:36 PM