



District Department of Transportation

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

Bowen Road at Stanley Street SE

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
6	605	7	7E	Proposed	Bowen Road at Stanley Street Southeast



The *proposed* speed camera will be located in Ward 7 at the intersection of Bowen Road and Stanley Street Southeast. Bowen Road runs between Southern Avenue Southeast to the east and Stanley Street Southeast to the west. The posted speed limit is 30 MPH.

W7 - 461





District Department of Transportation

Bowen Road at Stanley Street SE

Field Assessment Summary

Bowen Road is assumed to run in a northeast-southwest direction and is classified as a minor arterial. Bowen Road has one travel lane in each direction. Alabama Avenue is located on the west leg of the intersection and has one travel lane in each direction. Stanley Street has one lane northbound. Burns Street is located on the north leg of the intersection and has one travel lane in each direction. This site has the following characteristics:

- This is a residential area with houses and driveways.
- There is one school in the area, Randall Hyland Private School.
- Fort Circle Park is in the area.
- There is a grass island in the northwest corner of the intersection.
- There are sidewalks on both sides of Stanley Street, both sides of Bowen Road and the south side of Alabama Avenue.
- There is on-street parking on both sides of Stanley Street, both sides of Bowen Road and Alabama Avenue and the east side of Burns Street.
- There are bike lanes in both directions on the west leg of the intersection.
- There are crosswalks on the north, south, and west legs of the intersection as well as a free right in the northwest corner and west of the intersection on Bowen Road.



Looking Northbound

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District Department of Transportation

Bowen Road at Stanley Street SE



Looking Northeast-bound

Speed Data Analysis

	Northeast-Bound	Southwest-Bound
Posted Speed Limit (MPH)	30	30
Mean Speed (MPH)	31	25
85th Percentile Speed (MPH)	37	29
10 MPH Pace Speed	28-37	21-30
Sample Size	4,451	5,004
ADT	9,455	

The mean speed is higher than the posted speed limit in the northeast-bound direction and lower in the southwest-bound direction. The 85th percentile speed is higher than the posted speed limit in the northeast-bound direction and lower in the southwest-bound direction 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 4 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The types of collision at this location were Rear End (3 crashes) and Right Angle (1 crash). Furthermore, this site experienced 3 injury-related crashes.

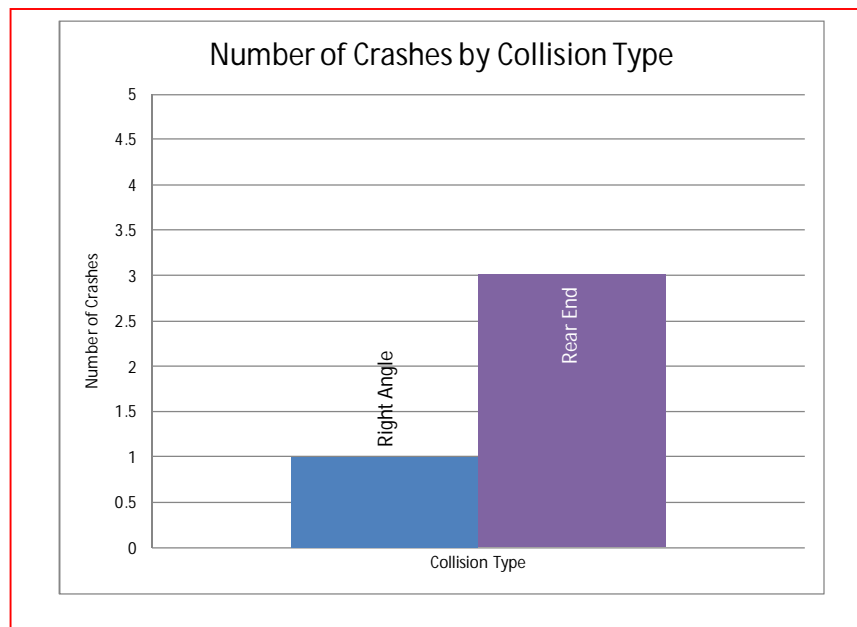
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District Department of Transportation

Bowen Road at Stanley Street SE

Severity			Weather			Surface condition			Light Condition		
Total	4										
Fatal	0	0.0%	Clear	4	100.0%	Dry	4	100.0%	Day	2	50.0%
Injury	3	75.0%	Rain	0	0.0%	Wet	0	0.0%	Night	2	50.0%
Truck	1	25.0%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Taxi	1	25.0%									



Safety Nexus

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

1. Speed Data – The 85th percentile speed is much higher in the northeast-bound and lower in the southwest-bound than the posted speed limit at this location.
2. Crash Data – This site experienced 3 injury-related crashes.
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 is one school in the area: Randall Hyland Private School.
 - c. Fort Circle Park is in the area which generates pedestrian and bicycle activity.
 - d. There are bike lanes in both directions on the west leg of the intersection.

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District Department of Transportation

Bowen Road at Stanley Street SE

- e. There are several bus stops in the area which generate pedestrian activity.
- f. There is on-street parking on both sides of the south, west, and east legs of the intersection and the east side of the north leg.

Due to the speed data analysis, the elevated number of injury-related crashes, the specific site characteristics, the multimodal transportation options, and other pedestrian generators, 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

Bowen Road at Stanley St SE Speed

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/23/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	1	2	33	32	9	1	0	0	0	0	0	0	0	0	78
02:00	3	3	20	15	6	1	0	0	0	0	0	0	0	0	48
03:00	1	3	15	21	7	1	0	0	0	0	0	0	0	0	48
04:00	0	1	10	19	7	1	0	0	0	0	0	0	0	0	38
05:00	0	2	23	21	14	4	0	0	0	0	0	0	0	0	64
06:00	2	3	23	35	9	5	0	0	0	0	0	0	0	0	77
07:00	0	9	33	59	14	4	0	0	0	0	0	0	0	0	119
08:00	5	6	69	110	19	5	0	0	0	0	0	0	0	0	214
09:00	13	8	100	130	27	0	0	0	0	0	0	0	0	0	278
10:00	13	8	115	139	16	0	0	0	0	0	0	0	0	0	291
11:00	14	9	100	163	30	1	0	0	0	0	0	0	0	0	317
12 PM	9	8	192	164	23	0	0	0	0	0	0	0	0	0	396
13:00	17	18	161	145	30	1	0	0	0	0	0	0	0	0	372
14:00	14	13	156	154	28	4	0	1	0	0	0	0	0	0	370
15:00	13	24	126	165	19	1	0	0	0	0	0	0	0	0	348
16:00	7	15	143	129	18	0	0	0	0	0	0	0	0	0	312
17:00	11	17	165	136	11	0	0	0	0	0	0	0	0	0	340
18:00	15	8	108	111	12	1	0	0	0	0	0	0	0	0	255
19:00	3	5	124	112	11	3	0	0	0	0	0	0	0	0	258
20:00	1	9	86	84	15	0	0	0	0	0	0	0	0	0	195
21:00	7	10	73	94	9	0	1	0	0	0	0	0	0	0	194
22:00	7	3	70	59	14	1	0	1	0	0	0	0	0	0	155
23:00	2	6	52	66	6	0	0	0	0	0	0	0	0	0	132
Total	158	190	1997	2163	354	34	1	2	0	0	0	0	0	0	4899

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammatteng.com

Bowen Road at Stanley St SE Speed

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/24/13	5	2	40	48	9	0	0	0	1	0	0	0	0	0	105
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	5	2	40	48	9	0	0	0	1	0	0	0	0	0	105
Grand Total	163	192	2037	2211	363	34	1	2	1	0	0	0	0	0	5004

15th Percentile : 19 MPH
 50th Percentile : 24 MPH
 85th Percentile : 29 MPH
 95th Percentile : 31 MPH

Stats
 Mean Speed(Average) : 25 MPH
 10 MPH Pace Speed : 21-30 MPH
 Number in Pace : 3640
 Percent in Pace : 72.7%
 Number of Vehicles > 30 MPH : 596
 Percent of Vehicles > 30 MPH : 11.9%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Bowen Road at Stanley St SE Speed

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/23/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	3	0	2	18	35	16	5	1	0	0	0	0	0	0	80
02:00	5	0	4	8	22	14	6	0	0	1	0	0	0	0	60
03:00	0	0	0	10	19	15	4	2	0	0	0	0	0	0	50
04:00	1	1	0	3	12	8	3	1	0	0	0	1	0	0	30
05:00	0	2	1	4	5	4	4	0	0	0	0	0	0	0	20
06:00	0	0	1	8	17	8	9	0	0	0	0	0	0	0	43
07:00	3	0	2	13	34	36	11	3	1	0	0	0	0	0	103
08:00	8	0	2	36	65	46	16	0	1	1	0	0	0	0	175
09:00	10	0	9	55	88	66	9	2	1	0	0	0	0	0	240
10:00	25	1	6	68	132	51	13	5	0	0	1	0	0	0	302
11:00	22	2	10	61	113	66	9	4	2	0	0	0	0	0	289
12 PM	20	2	4	72	122	52	9	3	3	2	0	0	0	0	289
13:00	20	4	17	93	137	57	9	4	0	0	0	0	0	0	341
14:00	12	4	7	82	130	66	11	2	0	0	0	0	0	0	314
15:00	13	1	7	49	162	66	16	3	0	1	0	0	0	0	318
16:00	15	2	5	97	131	69	11	2	1	0	0	0	0	0	333
17:00	10	0	8	104	119	30	4	0	0	0	0	0	0	0	275
18:00	15	3	22	67	81	34	5	2	0	0	0	0	0	0	229
19:00	13	7	5	54	102	27	3	1	0	0	0	0	0	0	212
20:00	5	2	3	60	60	31	7	4	0	0	0	0	0	0	172
21:00	5	1	7	35	96	43	7	1	0	0	0	0	0	0	195
22:00	5	2	3	45	70	30	12	2	1	1	1	0	0	0	172
23:00	6	4	3	26	56	22	7	3	2	1	0	1	1	0	132
Total	216	38	128	1068	1808	857	190	45	12	7	2	2	1	0	4374

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Bowen Road at Stanley St SE Speed

NEB																
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	
11/24/13	2	1	2	18	35	17	1	1	0	0	0	0	0	0	0	77
01:00	0	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	2	1	2	18	35	17	1	1	0	0	0	0	0	0	0	77
Grand Total	218	39	130	1086	1843	874	191	46	12	7	2	2	1	0	4451	

15th Percentile : 25 MPH
 50th Percentile : 31 MPH
 85th Percentile : 37 MPH
 95th Percentile : 41 MPH

Stats
 Mean Speed(Average) : 31 MPH
 10 MPH Pace Speed : 28-37 MPH
 Number in Pace : 2726
 Percent in Pace : 61.2%
 Number of Vehicles > 30 MPH : 2766
 Percent of Vehicles > 30 MPH : 62.2%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateg.com

Bowen Road at Stanley St SE Volume

Start Time	23-Nov-13		SWB		NEB		Combined		24-Nov-Sun	SWB		NEB		Combined	
	Sat		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*		*	81	*	69	*	150		26	*	24	*	50	*
12:15	*		99		*	74	*	173		26	*	17	*	43	*
12:30	*		99		*	70	*	169		23	*	22	*	45	*
12:45	*		117		*	76	*	193		30	*	14	*	44	*
01:00	22		106		18	73	40	179		*	*	*	*	*	*
01:15	24		95		27	90	51	185		*	*	*	*	*	*
01:30	12		80		21	101	33	181		*	*	*	*	*	*
01:45	20		91		14	77	34	168		*	*	*	*	*	*
02:00	14		80		16	90	30	170		*	*	*	*	*	*
02:15	14		94		19	68	33	162		*	*	*	*	*	*
02:30	7		96		12	70	19	166		*	*	*	*	*	*
02:45	13		100		13	86	26	186		*	*	*	*	*	*
03:00	17		92		16	85	33	177		*	*	*	*	*	*
03:15	12		86		11	66	23	152		*	*	*	*	*	*
03:30	10		86		17	82	27	168		*	*	*	*	*	*
03:45	9		84		6	85	15	169		*	*	*	*	*	*
04:00	11		78		11	79	22	157		*	*	*	*	*	*
04:15	12		75		10	72	22	147		*	*	*	*	*	*
04:30	9		78		5	90	14	168		*	*	*	*	*	*
04:45	6		81		4	92	10	173		*	*	*	*	*	*
05:00	9		104		7	62	16	166		*	*	*	*	*	*
05:15	20		63		3	73	23	136		*	*	*	*	*	*
05:30	17		86		4	75	21	161		*	*	*	*	*	*
05:45	18		87		6	65	24	152		*	*	*	*	*	*
06:00	11		63		6	64	17	127		*	*	*	*	*	*
06:15	16		71		9	44	25	115		*	*	*	*	*	*
06:30	24		59		13	52	37	111		*	*	*	*	*	*
06:45	26		62		15	69	41	131		*	*	*	*	*	*
07:00	25		52		25	58	50	110		*	*	*	*	*	*
07:15	21		74		28	54	49	128		*	*	*	*	*	*
07:30	32		58		15	47	47	105		*	*	*	*	*	*
07:45	41		74		35	53	76	127		*	*	*	*	*	*
08:00	43		52		39	48	82	100		*	*	*	*	*	*
08:15	51		49		43	40	94	89		*	*	*	*	*	*
08:30	55		48		40	45	95	93		*	*	*	*	*	*
08:45	65		46		53	39	118	85		*	*	*	*	*	*
09:00	71		42		40	47	111	89		*	*	*	*	*	*
09:15	65		61		59	56	124	117		*	*	*	*	*	*
09:30	70		50		65	47	135	97		*	*	*	*	*	*
09:45	72		41		76	45	148	86		*	*	*	*	*	*
10:00	75		40		66	50	141	90		*	*	*	*	*	*
10:15	61		38		82	40	143	78		*	*	*	*	*	*
10:30		83	42		77	45	160	87		*	*	*	*	*	*
10:45		72	35		77	37	149	72		*	*	*	*	*	*
11:00		80	36		80	44	160	80		*	*	*	*	*	*
11:15		86	28		59	31	145	59		*	*	*	*	*	*
11:30		76	41		68	39	144	80		*	*	*	*	*	*
11:45		75	27		82	18	157	45		*	*	*	*	*	*
Total		1572	3327		1392	2982	2964	6309		105	0	77	0	182	0
Day Total		4899			4374		9273			105		77		182	
% Total		17.0%	35.9%		15.0%	32.2%				57.7%	0.0%	42.3%	0.0%		
Peak		10:30	00:15		10:15	01:15	10:30	00:45		12:00		12:00		12:00	
Vol.		321	421		316	358	614	738		105		77		182	
P.H.F.		0.933	0.900		0.963	0.886	0.959	0.956		0.875		0.802		0.910	
ADT		ADT 9,455			AADT 9,455										

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-7)

Intersection: BOWEN RD and ALABAMA AVE (BOWEN), SE

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

Prepared By: Rahul Jain

Prepared Date: 9/16/2013

Total Number of Accident:	4	Collision Type	#ACC	%	Collision Type	#ACC	%
Total Number of Fatalities:	0	Right Angle:	1	25.0%	Fixed Object:	0	0.0%
Total Number of Injuries:	3	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling Injuries:	1	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	0	Rear End:	3	75.0%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	0	0.0%	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:	0	Parked:	0	0.0%	Unspecified:	0	0.0%
Time of Day				#ACC	%	Day of week	
07:30 ~ 09:30:				0	0.0%	Sunday:	
09:30 ~ 11:30:				0	0.0%	Monday:	
11:30 ~ 13:30:				1	25.0%	Tuesday:	
13:30 ~ 16:00:				0	0.0%	Wednesday:	
16:00 ~ 18:30:				0	0.0%	Thursday:	
18:30 ~ 07:30:				3	75.0%	Friday:	
Unspecified:				0	0.0%	Saturday:	
Weather Condition				#ACC	%	Surface Condition	
Clear:				4	100.0%	Dry:	
Rain:				0	0.0%	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:	
Type of Vehicle				#VEH	%	Accident Severity Type	
Passenger Car:				6	75.0%	Fatal Collision:	
Bus:				0	0.0%	Injury Collision:	
Truck:				1	12.5%	PDO Collision:	
Taxi:				1	12.5%		
Minivan:				0	0.0%	Light Condition	
Police/Emergency Vehicle:				0	0.0%	Daylight:	
Motorcycle/Moped:				0	0.0%	Dawn/Dusk:	
Bicycle:				0	0.0%	Dark(Lighted):	
Fixed Object:				0	0.0%	Dark(Not Lighted):	
Unspecified:				0	0.0%	Dark(Unknown Lighting):	
						Unspecified:	
Contributing Factor				#VEH	%	Pedestrian Actions	
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:				2	25.0%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				6	75.0%	Unspecified:	

1 Records are not approved as of 9/16/2013 2:45:32 PM