



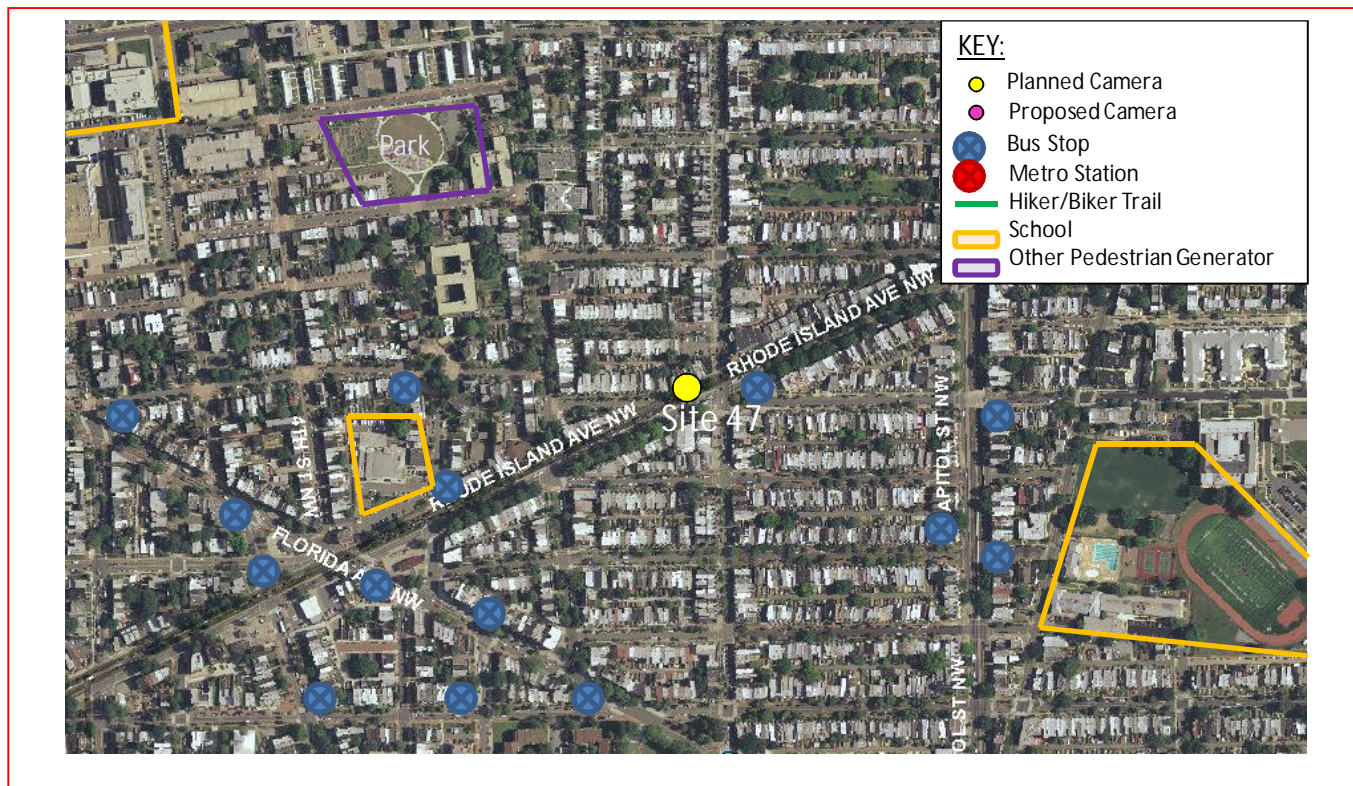
District Department of Transportation

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

Rhode Island Avenue at 1st Street NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
5	501	5	5C	Planned	Rhode Island Avenue Southwest-bound at 1 st Street Northwest



This *planned* speed camera will be located in Ward 5 at the intersection of Rhode Island Avenue and 1st Street Northwest in the southwest bound direction. Rhode Island Avenue runs between Connecticut Avenue Northwest to the west and Eastern Avenue Northeast to the east. First Street Northwest runs between Irving Street Northwest to the north and Pennsylvania Avenue Northwest to the south. The posted speed limit is 30 MPH.

W5 - 197





District Department of Transportation

Rhode Island Avenue at 1st Street NW

Field Assessment Summary

Rhode Island Avenue is assumed to run in an East-West direction, and is classified as a principal arterial. 1st Street Northwest is assumed to run in a North-South direction, and is classified as a collector. Rhode Island Avenue has three travel lanes in each direction and 1st Street NW has one travel lane in each direction. This site has the following characteristics:

- This site is located in a residential area with houses and businesses on both sides of the roadway.
- There are sidewalks on both sides of the roadways. Parking is allowed along Rhode Island Avenue at certain hours.
- There are three schools in the area: Howard University, Emery Elementary School and McKinley Technology High School.
- The Common Good Community Garden and The Park at Ledroit are in the area and generate pedestrian activity.
- There are crosswalks across every leg of the intersection.
- There are several bus stops in the area that generate pedestrian activity.



Looking North



District Department of Transportation

Rhode Island Avenue at 1st Street NW



Looking South

Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	21
85th Percentile Speed (MPH)	27
10 MPH Pace Speed (MPH)	20-29
ADT	12,843

The mean speed limit is 9 MPH lower than the posted speed limit and the 85th percentile speed is 3 MPH lower than the posted speed 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 36 crashes at this location. A breakdown of collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (14 crashes). The other collision types had 5 crashes or less.

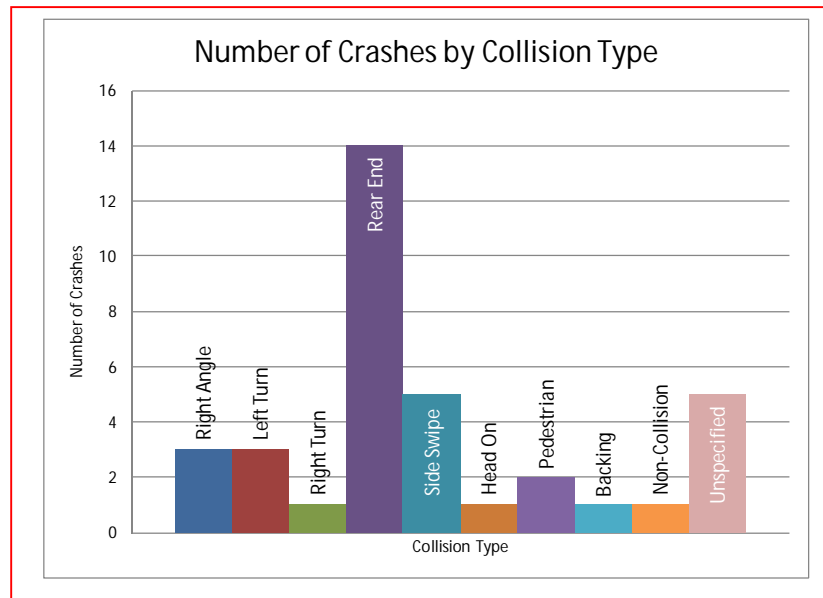
W5 - 199



District Department of Transportation

Rhode Island Avenue at 1st Street NW

Severity			Weather			Surface condition			Light Condition		
Total	36										
Fatal	0	0.0%	Clear	29	80.6%	Dry	29	80.6%	Day	20	55.6%
Injury	16	44.4%	Rain	2	5.6%	Wet	3	8.3%	Night	11	30.6%
Taxi	5	13.9%	Snow	1	2.8%	Snow/Ice	1	2.8%			
Truck	2	5.6%									



The Rhode Island 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. Speed Data – The speed data analysis shows travel speeds being lower than the posted speed limit.
2. Crash Data – There was an elevated number of speed related crashes at this location, including Rear End collisions, as well as a high frequency (16 crashes) of injury related crashes. The Rhode Island Avenue Corridor is listed as one of the top ten high frequency crash corridors from 2009 to 2011.

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



District Department of Transportation

Rhode Island Avenue at 1st Street NW

3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
 - a. There are three schools in the area: Howard University, Emery Elementary School and McKinley Technology High School.
 - b. The Common Good Community Garden and The Park at Ledroit are in the area and generate pedestrian activity.
 - c. There are several 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, the proximity of schools to the site, and other 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

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Rhode Island Ave SWB at 1st St NW Speed

SWB

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
11/10/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	4	48	84	12	1	0	0	0	0	0	0	0	0	0	149
23:00	2	33	145	31	2	0	0	0	0	0	0	0	0	0	213
Total	6	81	229	43	3	0	0	0	0	0	0	0	0	0	362

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD
MOUNT AIRY, MD 21771

www.sammateng.com

Rhode Island Ave SWB at 1st St NW Speed

SWB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/11/13	4	38	87	16	0	0	0	0	0	0	0	0	0	0	145
01:00	3	15	66	12	1	0	0	0	0	0	0	0	0	0	97
02:00	1	9	57	9	1	0	0	0	0	0	0	0	0	0	77
03:00	3	15	36	6	0	0	0	0	0	0	0	0	0	0	60
04:00	5	30	99	24	0	0	0	0	0	0	0	0	0	0	158
05:00	7	29	143	186	17	0	0	0	0	0	0	0	0	0	382
06:00	26	48	294	351	48	0	0	0	0	0	0	0	0	0	767
07:00	83	66	386	335	49	7	1	0	0	0	0	0	0	0	927
08:00	91	85	330	369	37	2	4	0	0	0	0	0	0	0	918
09:00	56	20	268	410	44	6	0	0	0	0	0	0	0	0	804
10:00	135	131	267	149	20	2	0	0	0	0	0	0	0	0	704
11:00	125	155	265	140	20	0	0	0	0	0	0	0	0	0	705
12 PM	98	141	262	178	50	6	0	0	0	0	0	0	0	0	735
13:00	154	151	221	147	52	11	1	0	0	0	0	0	0	0	737
14:00	109	180	259	197	43	4	0	0	0	0	0	0	0	0	792
15:00	115	158	271	206	47	5	0	0	0	0	0	0	0	0	802
16:00	93	157	306	198	23	0	0	0	0	0	0	0	0	0	777
17:00	109	180	302	182	28	1	0	0	0	0	0	0	0	0	802
18:00	63	111	252	170	26	0	0	0	0	0	0	0	0	0	622
19:00	52	95	265	137	10	0	0	0	0	0	0	0	0	0	559
20:00	18	46	210	117	14	1	0	0	0	0	0	0	0	0	406
21:00	11	37	186	102	5	0	0	0	0	0	0	0	0	0	341
22:00	6	35	89	29	5	0	0	0	0	0	0	0	0	0	164
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1367	1932	4921	3670	540	45	6	0	0	0	0	0	0	0	12481
Grand Total	1373	2013	5150	3713	543	45	6	0	0	0	0	0	0	0	12843

15th Percentile : 11 MPH
 50th Percentile : 21 MPH
 85th Percentile : 27 MPH
 95th Percentile : 30 MPH

Stats
 Mean Speed(Average) : 21 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 7106
 Percent in Pace : 55.3%
 Number of Vehicles > 30 MPH : 837
 Percent of Vehicles > 30 MPH : 6.5%

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MOUNT AIRY, MD 21771

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Rhode Island Ave SWB at 1st St NW Volume

Start Time	Sun	10-Nov-13	Mon	11-Nov-13	Tue	12-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	*	50	169	*	*	50	169
12:15	*	*	45	191	*	*	45	191
12:30	*	*	27	176	*	*	27	176
12:45	*	*	23	199	*	*	23	199
01:00	*	*	35	180	*	*	35	180
01:15	*	*	22	190	*	*	22	190
01:30	*	*	17	182	*	*	17	182
01:45	*	*	23	185	*	*	23	185
02:00	*	*	17	168	*	*	17	168
02:15	*	*	17	207	*	*	17	207
02:30	*	*	27	205	*	*	27	205
02:45	*	*	16	212	*	*	16	212
03:00	*	*	13	215	*	*	13	215
03:15	*	*	14	186	*	*	14	186
03:30	*	*	22	194	*	*	22	194
03:45	*	*	11	207	*	*	11	207
04:00	*	*	27	209	*	*	27	209
04:15	*	*	33	183	*	*	33	183
04:30	*	*	41	180	*	*	41	180
04:45	*	*	57	205	*	*	57	205
05:00	*	*	48	215	*	*	48	215
05:15	*	*	72	206	*	*	72	206
05:30	*	*	132	205	*	*	132	205
05:45	*	*	130	176	*	*	130	176
06:00	*	*	143	165	*	*	143	165
06:15	*	*	175	148	*	*	175	148
06:30	*	*	229	137	*	*	229	137
06:45	*	*	220	172	*	*	220	172
07:00	*	*	255	162	*	*	255	162
07:15	*	*	194	139	*	*	194	139
07:30	*	*	235	126	*	*	235	126
07:45	*	*	243	132	*	*	243	132
08:00	*	*	247	110	*	*	247	110
08:15	*	*	201	115	*	*	201	115
08:30	*	*	262	107	*	*	262	107
08:45	*	*	208	74	*	*	208	74
09:00	*	*	204	83	*	*	204	83
09:15	*	*	204	86	*	*	204	86
09:30	*	*	195	92	*	*	195	92
09:45	*	*	201	80	*	*	201	80
10:00	*	*	183	82	*	*	183	82
10:15	*	*	170	82	*	*	170	82
10:30	*	70	175	*	*	*	175	70
10:45	*	79	176	*	*	*	176	79
11:00	*	56	161	*	*	*	161	56
11:15	*	55	163	*	*	*	163	55
11:30	*	55	200	*	*	*	200	55
11:45	*	47	181	*	*	*	181	47
Total	0	362	5744	6737	0	0	5744	7099
Combined Total	362		12481		0		12843	
Peak		10:30	07:45	02:15			07:45	02:15
Vol.		260	953	839			953	839
P.H.F.		0.823	0.909	0.976			0.909	0.976
ADT	ADT 12,843		AADT 12,843					

DC Department of Transportation - Traffic Accident Reporting and Analysis System

Accident Summary Report (R-8)

Corridor: RHODE ISLAND AVE,NW,NE From FIRST ST,NW TO SEATON PL,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:	36	Right Angle:	3	8.3%	Fixed Object:	0	0.0%
Total Number of Fatalities:	0	Left Turn:	3	8.3%	Ran Off Road:	0	0.0%
Total Number of Injuries:	19	Right Turn:	1	2.8%	Ped. Involved:	2	5.6%
Total Number of Disabling Injuries:	0	Rear End:	14	38.9%	Backing:	1	2.8%
Total Number of NonDisabling Injuries:	3	Side Swiped:	5	13.9%	Non Collision:	1	2.8%
Total Number of Pedestrians Involved:	2	Head On:	1	2.8%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	2	Parked:	0	0.0%	Unspecified:	5	13.9%
Total Number of Motorcycles Involved:	2						

Time of Day	#ACC	%
07:30 ~ 09:30:	3	8.3%
09:30 ~ 11:30:	2	5.6%
11:30 ~ 13:30:	8	22.2%
13:30 ~ 16:00:	2	5.6%
16:00 ~18:30:	9	25.0%
18:30 ~ 07:30:	12	33.3%
Unspecified:	0	0.0%

Day o fweek	#ACC	%
Sunday:	3	8.3%
Monday:	6	16.7%
Tuesday:	3	8.3%
Wednesday:	4	11.1%
Thursday:	6	16.7%
Friday:	3	8.3%
Saturday:	11	30.6%

Weather Condition	#ACC	%
Clear:	29	80.6%
Rain:	2	5.6%
Snow:	1	2.8%
Sleet/Hail:	0	0.0%
Fog/Mist:	0	0.0%
Crosswind/Blowing Sand:	0	0.0%
Unspecified:	4	11.1%

Surface Condition	#ACC	%
Dry:	29	80.6%
Wet:	3	8.3%
Snow/Ice:	1	2.8%
Slush:	0	0.0%
Water/Sand:	0	0.0%
Repairing:	0	0.0%
Unspecified:	3	8.3%

Type of Vehicle	#VEH	%
Passenger Car:	51	77.3%
Bus:	1	1.5%
Truck:	2	3.0%
Taxi:	5	7.6%
Minivan:	0	0.0%
Police/Emergency Vehicle:	1	1.5%
Motorcycle/Moped:	2	3.0%
Bicycle:	2	3.0%
Fixed Object:	0	0.0%
Unspecified:	2	3.0%

Accident Severity Type	#ACC	%
Fatal Collision:	0	0.0%
Injury Collision:	16	44.4%
PDO Collision:	20	55.6%

Light Condition	#ACC	%
Daylight:	20	55.6%
Dawn/Dusk:	1	2.8%
Dark(Lighted):	11	30.6%
Dark(Not Lighted):	0	0.0%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	4	11.1%

Contributing Factor	#VEH	%
Driver: Speed:	2	3.0%
Driver: Alcohol/Drug:	0	0.0%
Driver: Electronic Device:	0	0.0%
Driver: Others:	15	22.7%
Vehicle:	0	0.0%
Roadway:	1	1.5%
Unspecified:	48	72.7%

Pedestrian Actions	#ACC	%
In Crosswalk with Signal:	1	100.0%
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%

24 Records are not approved as of 10/6/2013 4:56:43 PM