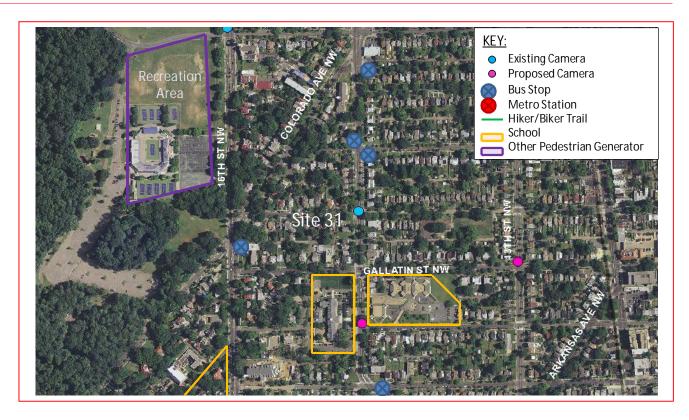


Speed Limit and Safety Nexus Studies for Automated Enforcement Locations in the District of Columbia 5200 Block 14th Street NW

Study Area and Location

District	PSA	Ward	ANC	Phase	Description
4	403	4	4C	Existing	5200 Block 14 th Street Northwest Southbound



The existing speed camera is located in Ward 4 at the 5200 Block of 14th Street Northwest in the southbound direction. It is between the intersections of Ingraham Street Northwest and Hamilton Street. 14th Street runs from Eastern Avenue Northwest in the north to the 14th Street Bridge, where it becomes US 1 to the south. The posted speed limit is 25 MPH. This speed camera was installed on November 2008.





Field Assessment Summary

Fourteenth Street NW is assumed to run in the North-South direction, and is classified as a minor arterial. Sixteenth Street NW is a bi-directional roadway with one through lanes in each direction with no center median. It intersects Hamilton Street NW and Ingraham Street NW which are both under two-way stop-control. The speed camera was not on site during the field investigation. This site has the following characteristics:

- Residential area with houses and driveways on both sides of the street.
- There are three schools in the area: The Kingsbury Center, Parkmont School, and West Education Campus.
- There is on-street parking on both sides of the street.
- There are bicycle lanes in each direction on 14th Street.
- There are bus stops at the end of each block, one in each direction, and multiple bus stops in the area.
- There is moderate traffic flow in both directions on 14th Street.
- The pavement conditions are fair and the drainage type is curb and gutter.
- There are concrete sidewalks on both sides of the street.







Speed Data Analysis

Posted Speed Limit (MPH)	25
Mean Speed (MPH)	22
85th Percentile Speed (MPH)	28
10 MPH Pace Speed	20-29 MPH
Sample Size	5,273
ADT	5,273

The mean speed is 3 MPH lower than the posted speed limit, and the 85th percentile speed is 3 MPH higher than the posted speed limit.

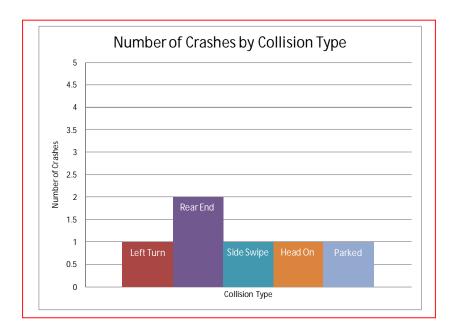
Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of six crashes at this location. A breakdown of collision type can be found in the chart on the next page.



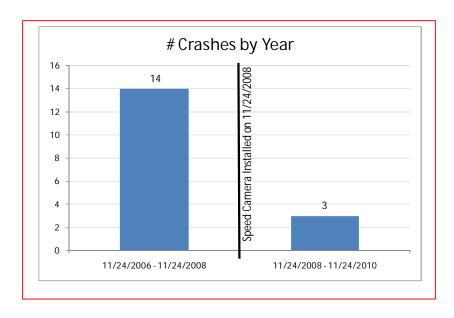
The most common type of crash at this location was Rear End with two crashes. Each of the other collision types Left Turn, Side Swiped, Head On, and Parked had only one crash each. Two crashes involved a contributing factor of the "driver speeding".

Severity			Weather			Surface	condit	ion	Light Condition		
Total	6										
Fatal	0	0.0%	Clear	6	100.0%	Dry	5	83.3%	Day	5	83.3%
Injury	1	16.7%	Rain	0	0.0%	Wet	0	0.0%	Night	0	0.0%
Bus	1	16.7%	Snow	0	0.0%	Snow/Ice	0	0.0%			
Truck	0	0.0%									



The speed camera was installed 11/24/08. The graph on the next page shows the number of crashes in the two years prior to the speed camera's installation (14 crashes) and the two years after the speed camera's installation (3 crashes). There was a notable decrease in the number of accidents since the installation of the speed camera. There were four injuries in the two years prior to installing the camera and three injuries after installing the speed camera.





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 85th percentile speed is higher than the posted speed limit.
- 2. Crash Data The number of crashes significantly reduced since installation of the speed camera.
- 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 driveway on both sides of the street.
 - b. There are three schools in the area: The Kingsbury Center, Parkmont School, and West Education Campus.
 - c. There are multiple bus stops in the area which generate pedestrian activity.

Due to the speed data analysis, the crash data analysis, and the residential neighborhood and the nearby school zones, 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

5200 block of 14th St NW SB Speed

SB															
Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/15/13	1	7	14	11	9	0	0	0	0	0	0	0	0	0	42
01:00	0	2	8	7	1	1	0	0	0	0	0	0	0	0	19
02:00	0	3	13	12	6	0	1	0	0	0	0	0	0	0	35
03:00	2	4	18	18	5	2	1	0	0	0	0	0	0	0	50
04:00	2	8	49	47	25	7	2	0	0	0	0	0	0	0	140
05:00	6	13	92	127	30	4	0	1	0	0	0	0	0	0	273
06:00	34	63	194	134	29	6	0	1	0	0	0	0	0	0	461
07:00	54	125	255	114	11	1	0	0	0	0	0	0	0	0	560
08:00	23	47	166	76	15	3	0	0	0	0	0	0	0	0	330
09:00	3	24	100	83	14	2	1	0	0	0	0	0	0	0	227
10:00	9	23	87	65	19	4	0	0	0	0	0	0	0	0	207
11:00	6	22	110	76	15	5	1	0	0	0	0	0	0	0	235
12 PM	12	22	78	78	15	3	0	0	0	0	0	0	0	0	208
13:00	9	18	91	77	16	5	2	0	0	0	0	0	0	0	218
14:00	7	58	138	79	12	2	0	0	0	0	0	0	0	0	296
15:00	41	73	111	63	15	1	4	0	0	0	0	0	0	0	308
16:00	9	87	170	71	10	1	0	0	0	0	0	0	0	0	348
17:00	24	101	166	71	11	1	0	0	0	0	0	0	0	0	374
18:00	3	51	138	71	8	3	0	0	0	0	0	0	0	0	274
19:00	3	31	82	39	9	2	0	0	0	0	0	0	0	0	166
20:00	8	24	62	44	13	1	0	0	0	0	0	0	0	0	152
21:00	4	19	65	31	8	0	0	0	0	0	0	0	0	0	127
22:00	2	35	67	22	12	1	0	0	0	0	0	0	0	0	139
23:00	6	14	36	22	6	0	0	0	0	0	0	0	0	0	84
Total	268	874	2310	1438	314	55	12	2	0	0	0	0	0	0	5273
Grand Total	268	874	2310	1438	314	55	12	2	0	0	0	0	0	0	5273

 15th Percentile:
 14 MPH

 50th Percentile:
 22 MPH

 85th Percentile:
 28 MPH

 95th Percentile:
 31 MPH

 Stats
 Mean Speed(Average) :
 22 MPH

 10 MPH Pace Speed :
 20-29 MPH

 Number in Pace :
 3144

 Percent in Pace :
 59.6%

 Number of Vehicles > 25 MPH :
 1714

 Percent of Vehicles > 25 MPH :
 32.5%

SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD MOUNT AIRY, MD 21771

www.sammateng.com

5200 block of 14th St NW SB Volume

Start	Fri	15-Nov-13	Sat	16-Nov-13	Sun	17-Nov-13	Daily A	
Time	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	13	56	*	*	*	*	13	56
12:15	10	54	*	*	*	*	10	54
12:30 12:45	14 5	35	*	*	*	*	14 5	35
12:45	5	63	*	*	*	*	5	63
01:00	5	58	*	*	*	*	5 2	58
01:15	2	51	*	*	*	*	2	51
01:30	6	52	*	*	*	*	6 6	52
01:45	6	57	*	*	*	*	6	57
02:00	7	77	*	*	*	*	7	77
02:15	11	81	*	*	*	*	11	81
02:30	11	69	*	*	*	*	11	69
02:45	6	69	*	*	*	*	6	69
03:00	8	68	*	*	*	*	8	68
03:15	10	78	*	*	*	*	10	78
03:30	17	82	*	*	*	*	17	82
03:45	15	80	*	*	*	*	15	80
04:00	16	84	*	*	*	*	16	84
04:15	29	67	*	*	*	*	29	67
04:30	39	104	*	*	*	*	39	104
04:45	56	93	*	*	*	*	56	93
05:00	49	99	*	*	*	*	49	99
05:15	64	93	*	*	*	*	64	93
05:30	69	93	*	*	*	*	69	93
05:45	91	89	*	*	*	*	91	89
06:00	92	76	*	*	*	*	92	76
06:15	100	73	*	*	*	*	100	73
06:30	118	65	*	*	*	*	118	65
06:45	151	60	*	*	*	*	151	60
07:00	152	43	*	*	*	*	152	43
07:15	144	41	*	*	*	*	144	41
07:30	136	41	*	*	*	*	136	41
07:45	128	41	*	*	*	*	128	41
08:00	95	42	*	*	*	*	95	42
08:15	99	40	*	*	*	*	99	40
08:30	77	38	*	*	*	*	77	38
08:45	59	32	*	*	*	*	59	32
09:00	56	28	*	*	*	*	56	28
09:15	53	38	*	*	*	*	53	38
09:30	59	31	*	*	*	*	59	31
09:45	59	30	*	*	*	*	59	30
10:00	46	36	*	*	*	*	46	36
10:15	51	31	*	*	*	*	51	31
10:30	46	40	*	*	*	*	46	40
10:45	64	32	*	*	*	*	64	32
11:00	64	22	*	*	*	*	64	22
11:15	50	19	*	*	*	*	50	19
11:30	64	24	*	*	*	*	64	24
11:45	57	19	*	*	*	*	57	19
Total	2579	2694	0	0	0	0	2579	2694
Combined		70			•			
Total	52	/5	()	0		5273)
Peak	06:45	04:30					06:45	04:30
Vol.	583	389					583	389
P.H.F.	0.959	0.935		_			0.959	0.935

Accident Summary Report (R-8)

Time Period Covered: Fr	rom 01/01/201	0 To 12/31	/2012 Prepare	ed By:	Rahul Jain	Prepared Da	ite: 9	9/15/2013
Total Number of Accident:		6	Collision Type	#ACC	%	Collision Type	#ACC	9
Total Number of Fatalities:		0	Right Angle:	0	0.0%	Fixed Object:	0	0.0%
Total Number of Injuries:		2	Left Turn:	1	16.7%	Ran Off Road:	0	0.0%
Total Number of Disabling In	ijuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisablir	ng Injuries:	1	Rear End:	2	33.3%	Backing:	0	0.0%
Total Number of Pedestrians	Involved:	0	Side Swiped:	1	16.7%	Non Collision:	0	0.0%
Total Number of Bicycles Inv	olved:	0	Head On:	1	16.7%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles	s Involved:	0	Parked:	1	16.7%	Unspecified:	0	0.0%
Time of Day	#ACC				Day o fweek	#AC	:C	9
07:30 ~ 09:30:	1	16.7%			Sunday:	2		33.3%
09:30 ~ 11:30:	1	16.7%			Monday:	0		0.0%
11:30 ~ 13:30:	0	0.0%			Tuesday:	0		0.0%
13:30 ~ 16:00:	2	33.3%			Wednesday:	1		16.7%
16:00 ~18:30:	0	0.0%			Thursday:	0		0.0%
18:30 ~ 07:30:	2	33.3%			Friday:	0		0.0%
Unspecified:	0	0.0%			Saturday:	3		50.0%
Weather Condition	#ACC	%			Surface Condition	#AC	:C	%
Clear:	6	100.0%			Dry:	5		83.3%
Rain:	0	0.0%			Wet:	0		0.0%
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:	0	0.0%			Unspecified:	1		16.7%
Type of Vehicle	#VEH	%			Accident Severity	Type #AC	c	%
Passenger Car:	12	85.7%			Fatal Collision:	0	-	0.0%
Bus:	1	7.1%			Injury Collision:	1		16.7%
Truck:	0	0.0%			PDO Collision:	5		83.3%
Taxi:	0	0.0%			1 20 0011101011.			
Minivan:	0	0.0%			Light Condition	#AC	C	%
Police/Emergency Vehicle:	0	0.0%			Daylight:	5		83.3%
Motorcycle/Moped:	0	0.0%			Dawn/Dusk:	0		0.0%
Bicycle:	0	0.0%			Dark(Lighted):	0		0.0%
Fixed Object:	0	0.0%			Dark(Not Lighted):	0		0.0%
Unspecified:	1	7.1%			Dark(Unknown Ligh	iting): 0		0.0%
опоросинос. Поросиности	•	,			Unspecified:	1		16.7%
Contributing Factor	#VEH	%			Pedestrian Action	s #AC	:C	%
Driver: Speed:	2	14.3%			In Crosswalk with S	ignal: 0		0.0%
Driver: Alcohol/Drug:	0	0.0%			In Crosswalk agains	st Signal: 0		0.0%
Driver: Electronic Device:	0	0.0%			In Crosswalk no Sig	nal: 0		0.0%
Driver: Others:	4	28.6%			In Unmarked Cross	walk: 0		0.0%
Vehicle:	0	0.0%			Not in Crosswalk:	0		0.0%
Roadway:	0	0.0%			From Between Park	ced Cars: 0		0.0%
Unspecified:	8	57.1%			Unspecified:	0		0.0%

⁵ Records are not approved as of 9/15/2013 12:36:19 PM

Accident Summary Report (R-8)

Time Period Covered: Fr	om 11/23/20	06 To 11/23	/2008 Prepare	ed By:	Rahul Jain	Prepared Da	te: 1	1/19/20
Total Number of Accident:		14	Collision Type	#ACC	%	Collision Type	#ACC	9
Total Number of Fatalities:		0	Right Angle:	3	21.4%	Fixed Object:	2	14.3%
Total Number of Injuries:		4	Left Turn:	0	0.0%	Ran Off Road:	0	0.0%
Total Number of Disabling In	juries:	1	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisablin	ng Injuries:	2	Rear End:	5	35.7%	Backing:	0	0.0%
Total Number of Pedestrians	Involved:	0	Side Swiped:	2	14.3%	Non Collision:	0	0.0%
Total Number of Bicycles Inv	olved:	0	Head On:	0	0.0%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles	Involved:	1	Parked:	1	7.1% l	Jnspecified:	1	7.1%
Time of Day	#ACC	<u></u> %			Day o fweek	#AC	c	%
07:30 ~ 09:30:	2	14.3%			Sunday:	2		14.3%
09:30 ~ 11:30:	3	21.4%			Monday:	3		21.4%
11:30 ~ 13:30:	1	7.1%			Tuesday:	2		14.3%
13:30 ~ 16:00:	4	28.6%			Wednesday:	4		28.6%
16:00 ~18:30:	1	7.1%			Thursday:	0		0.0%
18:30 ~ 07:30:	3	21.4%			Friday:	2		14.3%
Unspecified:	0	0.0%			Saturday:	1		7.1%
Weather Condition	#ACC	%			Surface Condition	#AC	c	%
Clear:	9	64.3%			Dry:	10		71.4%
Rain:	2	14.3%			Wet:	4		28.6%
Snow:	1	7.1%			Snow/Ice:	0		0.0%
Sleet/Hail:	0	0.0%			Slush:	0		0.0%
Fog/Mist:	1	7.1%			Water/Sand:	0		0.0%
Crosswind/Blowing Sand:	0	0.0%			Repairing:	0		0.0%
Unspecified:	1	7.1%			Unspecified:	0		0.0%
Type of Vehicle	#VEH	%			Accident Severity	Type #AC	c	%
Passenger Car:	24	77.4%			Fatal Collision:	0		0.0%
Bus:	2	6.5%			Injury Collision:	3		21.4%
Truck:	2	6.5%			PDO Collision:	11		78.6%
Taxi:	1	3.2%						
Minivan:	0	0.0%			Light Condition	#AC	C	%
Police/Emergency Vehicle:	0	0.0%			Daylight:	10		71.4%
Motorcycle/Moped:	1	3.2%			Dawn/Dusk:	0		0.0%
Bicycle:	0	0.0%			Dark(Lighted):	1		7.1%
Fixed Object:	1	3.2%			Dark(Not Lighted):	0		0.0%
Unspecified:	0	0.0%			Dark(Unknown Ligh	ting): 3		21.4%
					Unspecified:	0		0.0%
Contributing Factor	#VEH	%			Pedestrian Actions	s #AC	С	%
Driver: Speed:	4	12.9%			In Crosswalk with S	ignal: 0		0.0%
Driver: Alcohol/Drug:	1	3.2%			In Crosswalk agains	st Signal: 0		0.0%
Driver: Electronic Device:	0	0.0%			In Crosswalk no Sig	ınal: 0		0.0%
Driver: Others:	3	9.7%			In Unmarked Cross	walk: 0		0.0%
Vehicle:	1	3.2%			Not in Crosswalk:	0		0.0%
Roadway:	1	3.2%			From Between Park	ced Cars: 0		0.0%
Unspecified:	21	67.7%			Unspecified:	0		0.0%

¹⁴ Records are not approved as of 11/19/2013 3:19:12 PM

Accident Summary Report (R-8)

Time Period Covered: F	rom 11/24/200	8 To 11/24	/2010 Pre p	pared By:	Rahul Jain	Prepared Da	te:	11/19/20
Total Number of Accident:		3	Collision Ty	pe #ACC	> %	Collision Type	#AC	C 9
Total Number of Fatalities:		0	Right Angle:	0	0.0% F	ixed Object:	0	0.09
Total Number of Injuries:		3	Left Turn:	0	0.0% F	Ran Off Road:	0	0.09
Total Number of Disabling Ir	njuries:	0	Right Turn:	0	0.0% F	Ped. Involved:	0	0.0%
Total Number of NonDisabli	ng Injuries:	1	Rear End:	2	66.7% E	Backing:	0	0.0%
Total Number of Pedestrians	s Involved:	0	Side Swiped	: 1	33.3%	Non Collision:	0	0.09
Total Number of Bicycles Inv	volved:	0	Head On:	0	0.0% l	Jnder/Over Ride:	0	0.09
Total Number of Motorcycles	s Involved:	0	Parked:	0	0.0% L	Inspecified:	0	0.0%
Time of Day	#ACC	%			Day o fweek	#AC	c	9,
07:30 ~ 09:30:	1	33.3%			Sunday:	1		33.3%
09:30 ~ 11:30:	1	33.3%			Monday:	0		0.0%
11:30 ~ 13:30:	0	0.0%			Tuesday:	0		0.0%
13:30 ~ 16:00:	1	33.3%			Wednesday:	1		33.3%
16:00 ~18:30:	0	0.0%			Thursday:	0		0.0%
18:30 ~ 07:30:	0	0.0%			Friday:	1		33.3%
Unspecified:	0	0.0%			Saturday:	0		0.0%
Weather Condition	#ACC	%			Surface Condition	#AC	:C	9/
Clear:	3	100.0%			Dry:	3		100.0%
Rain:	0	0.0%			Wet:	0		0.0%
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:	0	0.0%			Unspecified:	0		0.0%
Type of Vehicle	#VEH	%			Accident Severity	Γvpe #AC	:C	9/
Passenger Car:	6	85.7%			Fatal Collision:	0	_	0.0%
Bus:	1	14.3%	1		Injury Collision:	2		66.7%
Truck:	0	0.0%			PDO Collision:	- 1		33.3%
Taxi:	0	0.0%			. 20 00	·		
Minivan:	0	0.0%			Light Condition	#AC	C	9
Police/Emergency Vehicle:	0	0.0%			Daylight:	3		100.0%
Motorcycle/Moped:	0	0.0%			Dawn/Dusk:	0		0.0%
Bicycle:	0	0.0%			Dark(Lighted):	0		0.0%
Fixed Object:	0	0.0%			Dark(Not Lighted):	0		0.0%
Unspecified:	0	0.0%			Dark(Unknown Light	ting): 0		0.0%
onspeamed.	Ü	0.070			Unspecified:	0		0.0%
Contributing Factor	#VEH	%			Pedestrian Actions	#AC	c	9
Driver: Speed:	1	14.3%			In Crosswalk with Si	gnal: 0		0.0%
Driver: Alcohol/Drug:	0	0.0%			In Crosswalk agains	t Signal: 0		0.0%
Driver: Electronic Device:	0	0.0%			In Crosswalk no Sig	nal: 0		0.0%
Driver: Others:	2	28.6%			In Unmarked Crossy	valk: 0		0.0%
Vehicle:	0	0.0%			Not in Crosswalk:	0		0.0%
Roadway:	0	0.0%			From Between Park	ed Cars: 0		0.0%
Unspecified:	4	57.1%			Unspecified:	0		0.0%

² Records are not approved as of 11/19/2013 3:17:48 PM