



District Department of Transportation

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

### 3000 Block Southern Avenue

#### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
7	702	8	8B	Proposed	3000 Block Southern Avenue, Northeast-bound



The *proposed* speed camera will be located in Ward 8 at the 3000 block of Southern Avenue in the northeast-bound direction. Southern Avenue runs between 63<sup>rd</sup> Street Northeast to the north and South Capitol Street Southwest to the south. The posted speed limit is 30 MPH.

W8 - 108





District Department of Transportation

3000 Block Southern Avenue

## Field Assessment Summary

Southern Avenue is assumed to run in a northeast-southwest direction and is classified as a minor arterial. Southern Avenue has two travel lanes in each direction. This site has the following characteristics:

- This is a residential area with apartments.
- There is one school in the area, Garfield Elementary School.
- There are bus stops in the area that generate pedestrian activity.
- There is sidewalk on both sides of the street and crosswalks south of 30<sup>th</sup> Street and north of Naylor Road.
- There is a traffic signal with pedestrian signals at Naylor Road.
- The pavement is in good condition and there is curb and gutter with drainage inlets.
- There is a bus stop southwest-bound before 30<sup>th</sup> Street.



Looking Northeast-bound





District Department of Transportation

3000 Block Southern Avenue



Looking Southwest-bound

## Speed Data Analysis

Posted Speed Limit (MPH)	30
Mean Speed (MPH)	24
85th Percentile Speed (MPH)	36
10 MPH Pace Speed	26-35
ADT	5,805

The mean speed is lower than the posted speed limit by 6 MPH and the 85<sup>th</sup> percentile speed is higher than the posted speed limit by 6 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 32 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 collision at this location were Left Turn (7 crashes), Rear End and Parked (5 crashes each), and Side Swipe and Head On (4 crashes each). The other collision types had 3 crashes or less each. There were 3 crashes where vehicular speeding was the contributing factor. Furthermore, the site experienced a high frequency (10 crashes) of injury-related crashes.

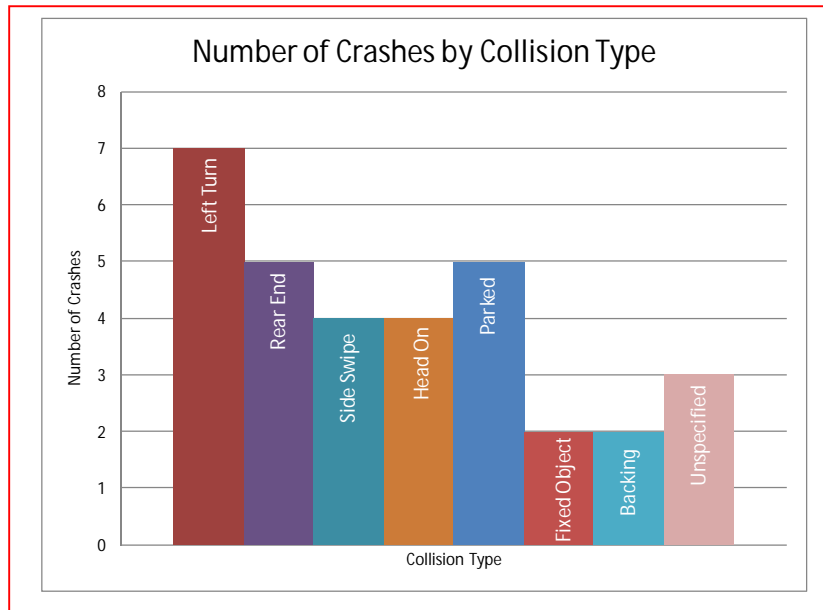
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District Department of Transportation

3000 Block Southern Avenue

Severity			Weather			Surface condition			Light Condition		
Total	32										
Fatal	0	0.0%	Clear	22	68.8%	Dry	23	71.9%	Day	10	31.3%
Injury	10	31.3%	Rain	6	18.8%	Wet	6	18.8%	Night	19	59.4%
Bus	2	6.3%	Snow	1	3.1%	Snow/Ice	0	0.0%			
Taxi	2	6.3%									



## 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 than the posted speed limit at this location.
2. Crash Data – This site experienced a high frequency (10 crashes) of 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 apartments.
  - b. There is one school in the area: Garfield Elementary School.
  - c. There are bus stops in the area that generate pedestrian activity.

Due to the speed data analysis, the elevated number of injury-related crashes, the specific site characteristics, and 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](http://www.sammateng.com)

## 3000 block of Southern Ave NEB Speed

NEB															
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
11/24/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	22	5	18	49	44	18	4	0	2	0	0	0	0	0	162
Total	22	5	18	49	44	18	4	0	2	0	0	0	0	0	162

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## 3000 block of Southern Ave NEB Speed

NEB																
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total
11/25/13	7	1	6	27	33	6	0	1	0	0	0	0	0	0	0	81
01:00	4	0	6	25	14	2	1	2	0	0	0	0	0	0	0	54
02:00	1	1	3	10	3	3	0	0	0	0	0	0	0	0	0	21
03:00	2	0	5	9	9	4	2	0	0	0	0	0	0	0	0	31
04:00	7	0	4	17	13	11	3	1	0	1	0	0	0	0	0	57
05:00	10	1	12	32	40	22	3	1	0	0	0	0	0	0	0	121
06:00	21	4	19	52	71	33	8	2	1	0	0	0	0	0	0	211
07:00	44	5	56	102	87	21	4	0	0	0	0	0	0	0	0	319
08:00	32	19	47	119	93	29	3	2	0	0	0	0	0	0	0	344
09:00	41	5	28	100	66	22	10	3	0	0	0	0	0	0	0	275
10:00	38	10	14	56	62	27	14	5	2	0	0	0	0	0	0	228
11:00	30	4	27	58	75	30	14	4	1	1	0	0	0	0	0	244
12 PM	64	1	23	44	66	38	27	16	2	0	0	0	0	0	0	281
13:00	117	8	18	45	41	43	28	10	8	4	0	0	0	0	0	322
14:00	113	0	18	44	75	47	19	9	7	1	0	0	0	0	0	333
15:00	83	8	28	59	88	55	23	6	1	0	0	0	0	0	0	351
16:00	140	42	63	67	52	25	7	1	0	0	0	0	0	0	0	397
17:00	120	10	65	106	111	30	8	6	0	1	0	0	0	0	0	457
18:00	129	19	53	68	64	36	15	5	1	1	1	0	0	0	0	392
19:00	105	6	35	67	98	61	24	12	2	0	0	0	0	0	0	410
20:00	88	1	15	43	65	59	30	11	6	0	0	0	0	0	0	318
21:00	67	1	1	11	32	36	34	14	7	1	0	0	0	0	0	204
22:00	51	1	0	20	26	41	29	17	7	0	0	0	0	0	0	192
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1314	147	546	1181	1284	681	306	128	45	10	1	0	0	0	0	5643
Grand Total	1336	152	564	1230	1328	699	310	128	47	10	1	0	0	0	0	5805

15th Percentile : 7 MPH  
 50th Percentile : 26 MPH  
 85th Percentile : 36 MPH  
 95th Percentile : 42 MPH

Stats  
 Mean Speed(Average) : 24 MPH  
 10 MPH Pace Speed : 26-35 MPH  
 Number in Pace : 2007  
 Percent in Pace : 34.6%  
 Number of Vehicles > 30 MPH : 2098  
 Percent of Vehicles > 30 MPH : 36.1%

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## 3000 block of Southern Ave NEB Volume

Start Time	Sun	24-Nov-13	Mon	25-Nov-13	Tue	26-Nov-13	Daily Average	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*	*	20	86	*	*	20	86
12:15	*	*	27	76	*	*	27	76
12:30	*	*	22	51	*	*	22	51
12:45	*	*	12	68	*	*	12	68
01:00	*	*	14	75	*	*	14	75
01:15	*	*	15	71	*	*	15	71
01:30	*	*	13	107	*	*	13	107
01:45	*	*	12	69	*	*	12	69
02:00	*	*	9	72	*	*	9	72
02:15	*	*	3	79	*	*	3	79
02:30	*	*	7	86	*	*	7	86
02:45	*	*	2	96	*	*	2	96
03:00	*	*	5	80	*	*	5	80
03:15	*	*	7	105	*	*	7	105
03:30	*	*	10	82	*	*	10	82
03:45	*	*	9	84	*	*	9	84
04:00	*	*	13	107	*	*	13	107
04:15	*	*	9	97	*	*	9	97
04:30	*	*	13	98	*	*	13	98
04:45	*	*	22	95	*	*	22	95
05:00	*	*	22	<b>120</b>	*	*	22	<b>120</b>
05:15	*	*	26	<b>118</b>	*	*	26	<b>118</b>
05:30	*	*	37	<b>116</b>	*	*	37	<b>116</b>
05:45	*	*	36	<b>103</b>	*	*	36	<b>103</b>
06:00	*	*	37	108	*	*	37	108
06:15	*	*	39	98	*	*	39	98
06:30	*	*	64	91	*	*	64	91
06:45	*	*	71	95	*	*	71	95
07:00	*	*	75	116	*	*	75	116
07:15	*	*	58	110	*	*	58	110
07:30	*	*	<b>92</b>	77	*	*	<b>92</b>	77
07:45	*	*	<b>94</b>	107	*	*	<b>94</b>	107
08:00	*	*	<b>76</b>	82	*	*	<b>76</b>	82
08:15	*	*	<b>87</b>	86	*	*	<b>87</b>	86
08:30	*	*	86	77	*	*	86	77
08:45	*	*	95	73	*	*	95	73
09:00	*	*	79	52	*	*	79	52
09:15	*	*	59	59	*	*	59	59
09:30	*	*	67	45	*	*	67	45
09:45	*	*	70	48	*	*	70	48
10:00	*	*	45	57	*	*	45	57
10:15	*	*	43	45	*	*	43	45
10:30	*	*	67	48	*	*	67	48
10:45	*	*	73	42	*	*	73	42
11:00	*	<b>43</b>	43	*	*	*	43	43
11:15	*	<b>38</b>	56	*	*	*	56	38
11:30	*	<b>50</b>	82	*	*	*	82	50
11:45	*	<b>31</b>	63	*	*	*	63	31
Total	0	162	1986	3657	0	0	1986	3819
Combined Total	162		5643		0		5805	
Peak	11:00		07:30	05:00			07:30	05:00
Vol.	162		349	457			349	457
P.H.F.	0.810		0.928	0.952			0.928	0.952
ADT	ADT 5,805		AADT 5,805					

## Accident Summary Report (R-8)

**Corridor:** SOUTHERN AVE,NE,SE From THIRTIETH ST,SE TO NAYLOR RD,SE

**Time Period Covered:** From 01/01/2010 To 12/31/2012 **Prepared By:** Rahul Jain

**Prepared Date:** 9/16/2013

		<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Accident:	32	Right Angle:	0	0.0%	Fixed Object:	2	6.3%
Total Number of Fatalities:	0	Left Turn:	7	21.9%	Ran Off Road:	0	0.0%
Total Number of Injuries:	16	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of Disabling Injuries:	0	Rear End:	5	15.6%	Backing:	2	6.3%
Total Number of NonDisabling Injuries:	6	Side Swiped:	4	12.5%	Non Collision:	0	0.0%
Total Number of Pedestrians Involved:	0	Head On:	4	12.5%	Under/Over Ride:	0	0.0%
Total Number of Bicycles Involved:	0	Parked:	5	15.6%	Unspecified:	3	9.4%
Total Number of Motorcycles Involved:	1						

<b>Time of Day</b>	<b>#ACC</b>	<b>%</b>
07:30 ~ 09:30:	2	6.3%
09:30 ~ 11:30:	1	3.1%
11:30 ~ 13:30:	1	3.1%
13:30 ~ 16:00:	3	9.4%
16:00 ~18:30:	7	21.9%
18:30 ~ 07:30:	18	56.3%
Unspecified:	0	0.0%

<b>Day o fweek</b>	<b>#ACC</b>	<b>%</b>
Sunday:	3	9.4%
Monday:	4	12.5%
Tuesday:	6	18.8%
Wednesday:	5	15.6%
Thursday:	2	6.3%
Friday:	8	25.0%
Saturday:	4	12.5%

<b>Weather Condition</b>	<b>#ACC</b>	<b>%</b>
Clear:	22	68.8%
Rain:	6	18.8%
Snow:	1	3.1%
Sleet/Hail:	0	0.0%
Fog/Mist:	0	0.0%
Crosswind/Blowing Sand:	1	3.1%
Unspecified:	2	6.3%

<b>Surface Condition</b>	<b>#ACC</b>	<b>%</b>
Dry:	23	71.9%
Wet:	6	18.8%
Snow/Ice:	0	0.0%
Slush:	1	3.1%
Water/Sand:	0	0.0%
Repairing:	0	0.0%
Unspecified:	2	6.3%

<b>Type of Vehicle</b>	<b>#VEH</b>	<b>%</b>
Passenger Car:	56	82.4%
Bus:	2	2.9%
Truck:	1	1.5%
Taxi:	2	2.9%
Minivan:	0	0.0%
Police/Emergency Vehicle:	1	1.5%
Motorcycle/Moped:	1	1.5%
Bicycle:	0	0.0%
Fixed Object:	0	0.0%
Unspecified:	5	7.4%

<b>Accident Severity Type</b>	<b>#ACC</b>	<b>%</b>
Fatal Collision:	0	0.0%
Injury Collision:	10	31.3%
PDO Collision:	22	68.8%

<b>Light Condition</b>	<b>#ACC</b>	<b>%</b>
Daylight:	10	31.3%
Dawn/Dusk:	0	0.0%
Dark(Lighted):	17	53.1%
Dark(Not Lighted):	2	6.3%
Dark(Unknown Lighting):	0	0.0%
Unspecified:	3	9.4%

<b>Contributing Factor</b>	<b>#VEH</b>	<b>%</b>
Driver: Speed:	3	4.4%
Driver: Alcohol/Drug:	0	0.0%
Driver: Electronic Device:	0	0.0%
Driver: Others:	10	14.7%
Vehicle:	0	0.0%
Roadway:	1	1.5%
Unspecified:	54	79.4%

<b>Pedestrian Actions</b>	<b>#ACC</b>	<b>%</b>
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%

21 Records are not approved as of 9/16/2013 11:32:00 AM