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# Memorandum

The City of Traverse City  
Engineering Department



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TO: Timothy J. Lodge, P.E., City Engineer  
FROM: Abhishek Deora, Seasonal Engineering Aide  
DATE: Tuesday, August 22nd, 2017  
SUBJECT: 24 Hour Speed and Volume of Spruce St between 2<sup>nd</sup> St and 3<sup>rd</sup> St

City Engineering performed a 24 hour speed study on Spruce St between 2nd St and 3rd St beginning on Monday, August 21st, 2017 concluded Tuesday, August 22nd, 2017. This memo is to formalize City Engineering's initial data observations and findings with to the speed statistics and volume of vehicular traffic on Spruce St.

The data was gathered using a JAMAR Radar Recorder, this data recorder collects both vehicle speed and volume using radar sensors in both Northbound and Southbound lanes. The raw data compiled and analyzed using TraxPro and reported vehicle speed count for every hour during the study in the increments of 5 miles per hour. The TraxPro software also compiled a report to be sent Traverse City Police Department to evaluate the possible percentage of enforceable violations. This data is organized into a small colored meter where red means there is a high enforcement potential and green equates to a low amount of speed infractions are occurring. For this report, the enforceable minimum speed a vehicle would need to be traveling is 5 miles per hour over the posted speed limit of 25 miles per hour.

During this 24 hour study, 569 vehicles were recorded. The average (mean) speed of the 569 vehicles is 20 miles per hour, with 20.2% of all vehicles traveling at speeds greater than the posted limit of 25 miles per hour. Giving motorist an extra 5 miles per hour over the posted speed limit for enforcement tolerance, the number of vehicles speeding is 3.1%.

## Summary (Combined):

- **Mean Speed:** 20 MPH
- **Number of Vehicles above Posted Speed Limit** 20.2%
- **85<sup>th</sup> Percentile of Speed:** 26 MPH
- **95<sup>th</sup> Percentile of Speed:** 29 MPH

## Enclosed:

Detailed TraxPro Speed Reports (Combined and Directional)  
TraxPro Police Enforcement Reports

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 00000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

A=Southbound

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Pace Speed	Number in Pace
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	1	3	6	<b>4</b>	0	0	0	0	0	0	0	0	0	0	14	21-30	10
15:00	3	6	4	2	0	0	0	0	0	0	0	0	0	0	15	16-25	10
16:00	2	3	9	4	0	0	0	0	0	0	0	0	0	0	18	21-30	13
17:00	<b>6</b>	<b>9</b>	<b>10</b>	2	0	0	0	0	0	0	0	0	0	0	<b>27</b>	16-25	19
18:00	3	8	<b>11</b>	1	0	0	0	0	0	0	0	0	0	0	23	16-25	19
19:00	5	9	9	1	0	0	0	0	0	0	0	0	0	0	24	16-25	18
20:00	3	2	5	2	0	0	0	0	0	0	0	0	0	0	12	21-30	7
21:00	1	4	2	0	0	0	0	0	0	0	0	0	0	0	7	15-24	6
22:00	0	0	4	1	0	0	0	0	0	0	0	0	0	0	5	19-28	5
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	24	44	60	18	0	0	0	0	0	0	0	0	0	0	146		
Percent	16.4%	30.1%	41.1%	12.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	17:00	17:00	18:00	14:00											17:00		
	6	9	11	4											27		

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 00000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

A=Southbound

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Pace Speed	Number in Pace
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	2	2	2	0	0	0	0	0	0	0	0	0	0	0	6	15-24	4
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
07:00	1	1	6	1	0	0	0	0	0	0	0	0	0	0	9	20-29	7
08:00	3	4	14	2	0	0	0	0	0	0	0	0	0	0	23	16-25	18
09:00	2	3	6	3	1	0	0	0	0	0	0	0	0	0	15	16-25	9
10:00	1	5	6	1	1	0	0	0	0	0	0	0	0	0	14	16-25	11
11:00	2	5	11	2	2	0	0	0	0	0	0	0	0	0	22	16-25	16
12 PM	3	15	16	1	0	0	0	0	0	0	0	0	0	0	35	16-25	31
13:00	8	8	12	5	0	0	0	0	0	0	0	0	0	0	33	16-25	20
14:00	3	2	8	1	0	0	0	0	0	0	0	0	0	0	14	16-25	10
15:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	10-19	2
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Total</b>	<b>26</b>	<b>47</b>	<b>81</b>	<b>16</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>175</b>		
<b>Percent</b>	<b>14.9%</b>	<b>26.9%</b>	<b>46.3%</b>	<b>9.1%</b>	<b>2.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>			
<b>AM Peak</b>	<b>08:00</b>	<b>10:00</b>	<b>08:00</b>	<b>09:00</b>	<b>11:00</b>											<b>08:00</b>	
<b>Vol.</b>	<b>3</b>	<b>5</b>	<b>14</b>	<b>3</b>	<b>2</b>											<b>23</b>	
<b>PM Peak</b>	<b>13:00</b>	<b>12:00</b>	<b>12:00</b>	<b>13:00</b>												<b>12:00</b>	
<b>Vol.</b>	<b>8</b>	<b>15</b>	<b>16</b>	<b>5</b>												<b>35</b>	
<b>Total</b>	<b>50</b>	<b>91</b>	<b>141</b>	<b>34</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>321</b>		
<b>Percent</b>	<b>15.6%</b>	<b>28.3%</b>	<b>43.9%</b>	<b>10.6%</b>	<b>1.6%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>			

15th Percentile : 14 MPH  
50th Percentile : 20 MPH  
85th Percentile : 24 MPH  
95th Percentile : 28 MPH

Stats  
10 MPH Pace Speed : 16-25 MPH  
Number in Pace : 232  
Percent in Pace : 72.3%  
Number of Vehicles > 25 MPH : 39  
Percent of Vehicles > 25 MPH : 12.1%  
Mean Speed(Average) : 20 MPH

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 00000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

B=Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	0	1	3	7	<b>3</b>	0	0	0	0	0	0	0	0	0	14	21-30	10
15:00	1	0	8	5	2	<b>2</b>	0	0	0	0	0	0	0	0	18	21-30	13
16:00	<b>3</b>	3	4	<b>12</b>	0	0	0	0	0	0	0	0	0	0	<b>22</b>	21-30	16
17:00	0	<b>5</b>	6	6	1	0	0	0	0	0	0	0	0	0	18	19-28	12
18:00	2	3	<b>9</b>	3	0	0	0	0	0	0	0	0	0	0	17	16-25	12
19:00	3	5	9	1	1	0	0	0	0	0	0	0	0	0	19	16-25	14
20:00	1	2	3	4	0	0	0	0	0	0	0	0	0	0	10	20-29	7
21:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	11	19	42	39	7	2	0	0	0	0	0	0	0	0	120		
Percent	9.2%	15.8%	35.0%	32.5%	5.8%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00	17:00	18:00	16:00	14:00	15:00									16:00		
	3	5	9	12	3	2									22		

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 00000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

B=Northbound

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Pace Speed	Number in Pace
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	<b>32</b>	<b>3</b>	0	1	0	0	0	0	0	0	0	0	0	0	<b>36</b>	6-15	21
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	19-28	2
07:00	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	16-25	4
08:00	0	1	5	<b>4</b>	<b>1</b>	0	0	0	0	0	0	0	0	0	11	21-30	9
09:00	1	1	1	2	1	0	0	0	0	0	0	0	0	0	6	26-35	3
10:00	7	2	6	3	1	0	0	0	0	0	0	0	0	0	19	19-28	9
11:00	0	1	<b>9</b>	3	1	0	0	0	0	0	0	0	0	0	14	21-30	12
12 PM	3	<b>14</b>	7	<b>8</b>	0	0	0	0	0	0	0	0	0	0	<b>32</b>	16-25	21
13:00	<b>4</b>	<b>6</b>	<b>10</b>	4	0	0	0	0	0	0	0	0	0	0	24	16-25	16
14:00	3	9	10	6	<b>1</b>	0	0	0	0	0	0	0	0	0	29	16-25	19
15:00	1	1	2	1	1	0	0	0	0	0	0	0	0	0	6	21-30	3
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Total</b>	<b>52</b>	<b>39</b>	<b>54</b>	<b>33</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>184</b>		
<b>Percent</b>	<b>28.3%</b>	<b>21.2%</b>	<b>29.3%</b>	<b>17.9%</b>	<b>3.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>			
<b>AM Peak</b>	<b>03:00</b>	<b>03:00</b>	<b>11:00</b>	<b>08:00</b>	<b>08:00</b>											<b>03:00</b>	
<b>Vol.</b>	<b>32</b>	<b>3</b>	<b>9</b>	<b>4</b>	<b>1</b>											<b>36</b>	
<b>PM Peak</b>	<b>13:00</b>	<b>12:00</b>	<b>13:00</b>	<b>12:00</b>	<b>14:00</b>											<b>12:00</b>	
<b>Vol.</b>	<b>4</b>	<b>14</b>	<b>10</b>	<b>8</b>	<b>1</b>											<b>32</b>	
<b>Total</b>	<b>63</b>	<b>58</b>	<b>96</b>	<b>72</b>	<b>13</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>304</b>		
<b>Percent</b>	<b>20.7%</b>	<b>19.1%</b>	<b>31.6%</b>	<b>23.7%</b>	<b>4.3%</b>	<b>0.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>			

15th Percentile : 10 MPH  
50th Percentile : 21 MPH  
85th Percentile : 27 MPH  
95th Percentile : 29 MPH

Stats  
10 MPH Pace Speed : 21-30 MPH  
Number in Pace : 168  
Percent in Pace : 55.3%  
Number of Vehicles > 25 MPH : 87  
Percent of Vehicles > 25 MPH : 28.6%  
Mean Speed(Average) : 21 MPH

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 0000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

A=Southbound, B=Northbound

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	in Pace
08/21/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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	1	4	9	11	<b>3</b>	0	0	0	0	0	0	0	0	0	28	21-30	20
15:00	4	6	12	7	2	<b>2</b>	0	0	0	0	0	0	0	0	33	19-28	19
16:00	5	6	13	<b>16</b>	0	0	0	0	0	0	0	0	0	0	40	21-30	29
17:00	6	<b>14</b>	16	8	1	0	0	0	0	0	0	0	0	0	<b>45</b>	16-25	30
18:00	5	11	<b>20</b>	4	0	0	0	0	0	0	0	0	0	0	40	16-25	31
19:00	<b>8</b>	14	18	2	1	0	0	0	0	0	0	0	0	0	43	16-25	32
20:00	4	4	8	6	0	0	0	0	0	0	0	0	0	0	22	20-29	14
21:00	1	4	2	1	0	0	0	0	0	0	0	0	0	0	8	16-25	6
22:00	1	0	4	1	0	0	0	0	0	0	0	0	0	0	6	19-28	5
23:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
Total	35	63	102	57	7	2	0	0	0	0	0	0	0	0	266		
Percent	13.2%	23.7%	38.3%	21.4%	2.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	19:00	17:00	18:00	16:00	14:00	15:00									17:00		
Vol.	8	14	20	16	3	2									45		

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 00000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

A=Southbound, B=Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
08/22/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	34	5	2	1	0	0	0	0	0	0	0	0	0	0	42	1-10	23
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	1
06:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	19-28	2
07:00	1	2	9	1	0	0	0	0	0	0	0	0	0	0	13	16-25	11
08:00	3	5	19	6	1	0	0	0	0	0	0	0	0	0	34	21-30	25
09:00	3	4	7	5	2	0	0	0	0	0	0	0	0	0	21	21-30	12
10:00	8	7	12	4	2	0	0	0	0	0	0	0	0	0	33	16-25	19
11:00	2	6	20	5	3	0	0	0	0	0	0	0	0	0	36	16-25	26
12 PM	6	29	23	9	0	0	0	0	0	0	0	0	0	0	67	16-25	52
13:00	12	14	22	9	0	0	0	0	0	0	0	0	0	0	57	16-25	36
14:00	6	11	18	7	1	0	0	0	0	0	0	0	0	0	43	16-25	29
15:00	1	3	2	1	1	0	0	0	0	0	0	0	0	0	8	16-25	5
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	78	86	135	49	11	0	0	0	0	0	0	0	0	0	359		
Percent	21.7%	24.0%	37.6%	13.6%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	03:00	10:00	11:00	08:00	11:00										03:00		
Vol.	34	7	20	6	3										42		
PM Peak	13:00	12:00	12:00	12:00	14:00										12:00		
Vol.	12	29	23	9	1										67		
Total	113	149	237	106	18	2	0	0	0	0	0	0	0	0	625		
Percent	18.1%	23.8%	37.9%	17.0%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 12 MPH  
50th Percentile : 21 MPH  
85th Percentile : 26 MPH  
95th Percentile : 29 MPH

Stats  
10 MPH Pace Speed : 16-25 MPH  
Number in Pace : 386  
Percent in Pace : 61.8%  
Number of Vehicles > 25 MPH : 126  
Percent of Vehicles > 25 MPH : 20.2%  
Mean Speed(Average) : 20 MPH

Spruce St  
Between 2nd & 3rd St  
Speed

Site Code: 0000001  
Station ID:  
Spruce St  
Between 2nd and 3rd St  
Latitude: 0' 0.0000 South

Start Time	21-Aug-17 Mon	22-Aug-17 Tue	23-Aug-17 Wed	24-Aug-17 Thu	25-Aug-17 Fri	Weekday Average	26-Aug-17 Sat	27-Aug-17 Sun
12:00 AM	*	0	*	*	*	0	*	*
01:00	*	0	*	*	*	0	*	*
02:00	*	0	*	*	*	0	*	*
03:00	*	42	*	*	*	42	*	*
04:00	*	1	*	*	*	1	*	*
05:00	*	1	*	*	*	1	*	*
06:00	*	3	*	*	*	3	*	*
07:00	*	13	*	*	*	13	*	*
08:00	*	34	*	*	*	34	*	*
09:00	*	21	*	*	*	21	*	*
10:00	*	33	*	*	*	33	*	*
11:00	*	36	*	*	*	36	*	*
12:00 PM	*	67	*	*	*	67	*	*
01:00	*	57	*	*	*	57	*	*
02:00	28	43	*	*	*	36	*	*
03:00	33	8	*	*	*	20	*	*
04:00	40	*	*	*	*	40	*	*
05:00	45	*	*	*	*	45	*	*
06:00	40	*	*	*	*	40	*	*
07:00	43	*	*	*	*	43	*	*
08:00	22	*	*	*	*	22	*	*
09:00	8	*	*	*	*	8	*	*
10:00	6	*	*	*	*	6	*	*
11:00	1	*	*	*	*	1	*	*
Total	266	359	0	0	0		0	0
Percentage	46.7%	63.1%	0.0%	0.0%	0.0%		0.0%	0.0%
AM Peak	-	03:00	-	-	-	-	-	-
Vol.	-	42	-	-	-	-	-	-
PM Peak	17:00	12:00	-	-	-	-	-	-
Vol.	45	67	-	-	-	-	-	-
Total		359	0					



# Speed Enforcement Evaluator

**Location:**  
**Spruce St**

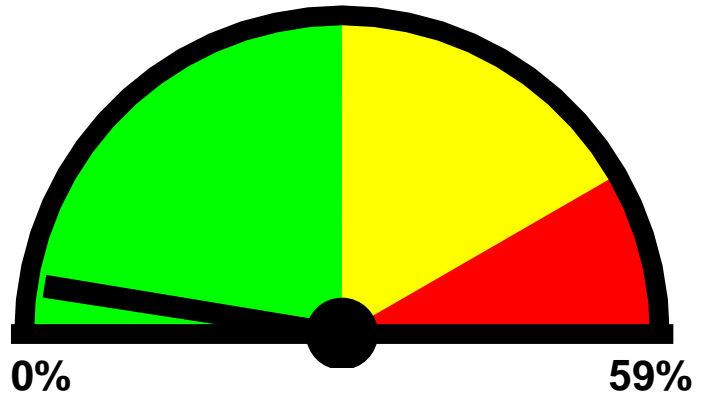
**Total Percentage of Enforceable Violations**

**GPS:**  
0' 0.0000 South  
0' 0.0000 East

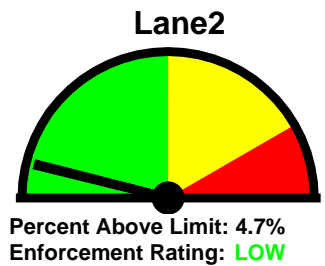
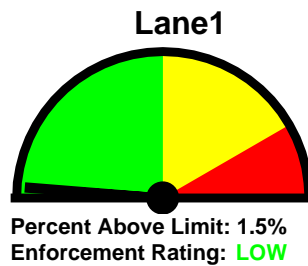
**Closest Cross Street:**  
Between 2nd and 3rd St

**Analysis Dates:**  
Monday, August 21, 2017  
Tuesday, August 22, 2017

**Equipment Used:**



**Posted Speed Limit:** 25 MPH  
**Enforcement Tolerance:** 5 MPH  
**Enforcement Limit:** 31 MPH & Up  
**Percentage Above Limit:** 3.1%  
**Enforcement Rating:** **LOW**



Combined

1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65
0	24	89	158	249	111	18	2	0	0	0	0	0	0

85 percentile = 25

Lane1

1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65
0	23	28	96	145	35	5	0	0	0	0	0	0	0

85 percentile = 24

Lane2

1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	>65
0	1	61	62	104	76	13	2	0	0	0	0	0	0

85 percentile = 26

# Best Times for Enforcement

**Location:**  
**Spruce St**  
**Closest Cross Street:**  
Between 2nd and 3rd St

**Analysis Dates:**  
Monday, August 21, 2017  
Tuesday, August 22, 2017

**Sun**

**Mon** Combined: 2 PM to 4 PM

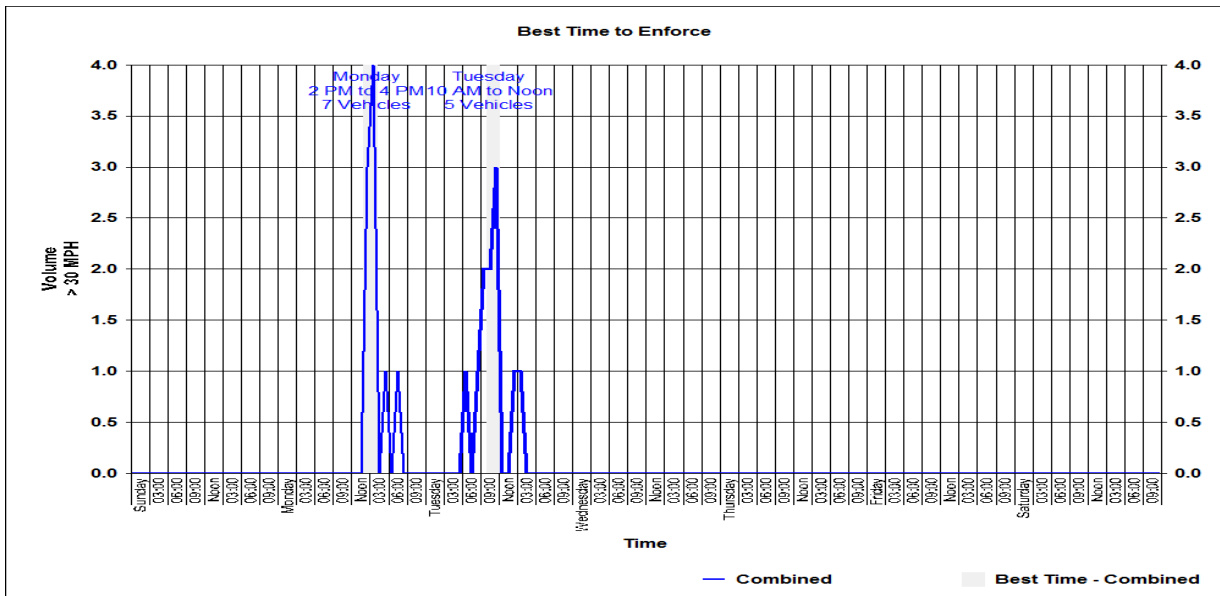
**Tue** Lane2: 2 PM to 4 PM  
Combined: 10 AM to Noon  
Lane1: 10 AM to Noon  
Lane2: 8 AM to 10 AM

**Wed**

**Thu**

**Fri**

**Sat**



Spruce St  
Between 2nd & 3rd St  
Speed

