
Memorandum

The City of Traverse City
Engineering Department



TO: Transportation Committee (Per Slabtown) *TV*
FROM: Matthew Sexton, Seasonal Engineering Aide *M.S.*
DATE: Friday, June 22nd, 2018
SUBJECT: 24 Hour Speed and Volume of Wayne Street, Near Spruce

City Engineering performed a 24 hour speed study on Wayne Street, Near Spruce beginning on Wednesday, June 20th, 2018 and concluding on Thursday, June 21st, 2018. This memo is to formalize City Engineering's initial data observations and findings with to the speed statistics and volume of vehicular traffic on Wayne Street.

The data was gathered using a JAMAR Radar Recorder; this data recorder collects both vehicle speed and volume using radar sensors in both Eastbound and Westbound 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, 1376 vehicles were recorded. The average (mean) speed of the 1376 vehicles was 22 miles per hour, with 26.1% 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 was 5.1%.

Summary (Combined):

- **Mean Speed:** 22 MPH
- **Number of Vehicles above Posted Speed Limit** 26.1%
- **85th Percentile of Speed:** 27 MPH
- **95th Percentile of Speed:** 30 MPH

Enclosed:

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

Wayne Street

Speed Enforcement Evaluator

Location:
Wayne Street

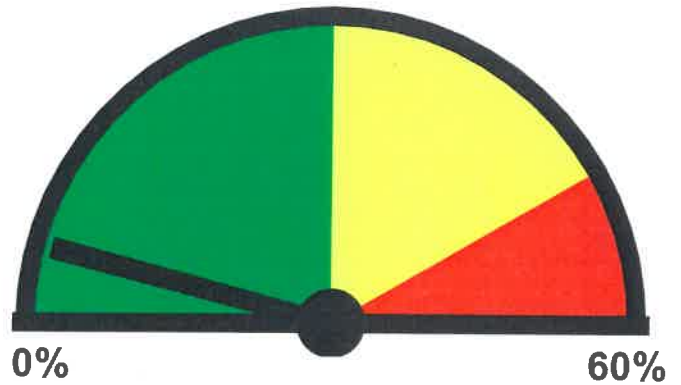
Total Percentage of
Enforceable Violations

Closest Cross Street:
Monroe

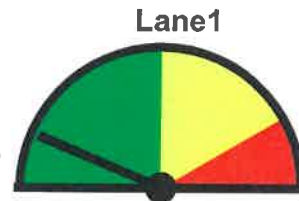
Analysis Dates:
Wednesday, June 20, 2018
Thursday, June 21, 2018

Equipment Used:
Radar Recorder

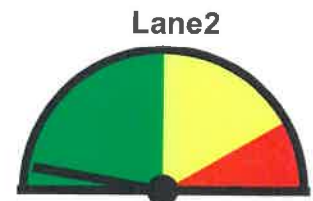
Requested By:
Slabtown Neighborhood



0% 60%
Posted Speed Limit: 25 MPH
Enforcement Tolerance: 5 MPH
Enforcement Limit: 31 MPH & Up
Percentage Above Limit: 5.0%
Enforcement Rating: **LOW**



Percent Above Limit: 7.7%
Enforcement Rating: **LOW**



Percent Above Limit: 3.3%
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	21	95	314	668	323	66	9	0	0	0	0	0	0

85 percentile = 26

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	13	43	115	234	133	40	5	0	0	0	0	0	0

85 percentile = 27

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	8	52	199	434	190	26	4	0	0	0	0	0	0

85 percentile = 26

Wayne Street Near Monroe & Madison

Wayne Street
Monroe

Direction 2		1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number	
Start Time	06/20/18	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Speed	In Pace	
	01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	09:00	3	11	29	13	4	0	0	0	0	0	0	0	0	0	60	21-30	42	
	10:00	3	14	21	10	0	0	0	0	0	0	0	0	0	0	48	16-25	35	
	11:00	2	11	26	14	4	0	0	0	0	0	0	0	0	0	57	21-30	40	
	12 PM	4	11	31	12	3	0	0	0	0	0	0	0	0	0	61	21-30	43	
	13:00	4	9	29	11	0	0	0	0	0	0	0	0	0	0	53	20-29	40	
	14:00	6	18	17	6	1	0	0	0	0	0	0	0	0	0	48	16-25	35	
	15:00	9	13	22	10	1	2	0	0	0	0	0	0	0	0	57	16-25	35	
	16:00	8	11	31	14	0	0	0	0	0	0	0	0	0	0	64	21-30	45	
	17:00	2	19	38	10	1	0	0	0	0	0	0	0	0	0	70	16-25	57	
	18:00	1	8	24	4	2	0	0	0	0	0	0	0	0	0	39	16-25	32	
	19:00	7	11	22	6	1	0	0	0	0	0	0	0	0	0	47	16-25	33	
	20:00	4	14	9	5	0	0	0	0	0	0	0	0	0	0	32	16-25	23	
	21:00	3	7	15	7	1	0	0	0	0	0	0	0	0	0	33	16-25	22	
	22:00	0	0	3	1	0	1	0	0	0	0	0	0	0	0	5	21-30	4	
	23:00	0	1	3	1	0	0	0	0	0	0	0	0	0	0	5	21-30	4	
	Total	56	158	320	124	18	3	0	0	0	0	0	0	0	0	679			
	Percent	8.2%	23.3%	47.1%	18.3%	2.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
	AM Peak	09:00	10:00	09:00	11:00	09:00													
	Vol.	3	14	29	14	4										09:00			
	PM Peak	15:00	17:00	17:00	16:00	12:00	15:00									60			
	Vol.	9	19	38	14	3	2									17:00			

Wayne Street Near Monroe & Madison

Wayne Street
Monroe

Direction 1, Direction 2		16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace	Number
Start	Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Speed	In Pace
06/20/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	3	17	43	16	9	0	0	0	0	0	0	0	0	0	88	16-25	60
10:00	3	25	32	19	0	0	0	0	0	0	0	0	0	0	79	16-25	57
11:00	3	15	39	22	7	0	0	0	0	0	0	0	0	0	86	21-30	61
12 PM	5	18	45	24	6	0	0	0	0	0	0	0	0	0	98	21-30	69
13:00	8	17	40	20	2	1	0	0	0	0	0	0	0	0	88	21-30	60
14:00	12	23	29	11	2	1	0	0	0	0	0	0	0	0	78	16-25	52
15:00	17	22	41	16	2	2	0	0	0	0	0	0	0	0	100	16-25	63
16:00	10	19	48	23	3	0	0	0	0	0	0	0	0	0	103	21-30	71
17:00	8	28	57	27	4	1	0	0	0	0	0	0	0	0	125	16-25	85
18:00	7	12	35	12	8	1	0	0	0	0	0	0	0	0	75	21-30	47
19:00	12	20	30	14	2	1	0	0	0	0	0	0	0	0	79	16-25	50
20:00	11	17	21	7	1	0	0	0	0	0	0	0	0	0	57	16-25	38
21:00	5	15	25	11	4	0	0	0	0	0	0	0	0	0	60	16-25	40
22:00	2	0	5	3	3	1	0	0	0	0	0	0	0	0	14	21-30	8
23:00	0	3	5	2	0	0	0	0	0	0	0	0	0	0	10	16-25	8
Total	106	251	495	227	53	8	0	0	0	0	0	0	0	0	1140		
Percent	9.3%	22.0%	43.4%	19.9%	4.6%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	09:00	11:00	09:00										09:00		
Vol.	3	25	43	22	9										88		
PM Peak	15:00	17:00	17:00	17:00	18:00	15:00									17:00		
Vol.	17	28	57	27	8	2									125		

Wayne Street Near Monroe & Madison

Wayne Street
Monroe

Start Time	6/18/2018 Mon	6/19/2018 Tue	6/20/2018 Wed	6/21/2018 Thu	6/22/2018 Fri	Weekday Average	6/23/2018 Sat	6/24/2018 Sun
12:00 AM	*	*	*	8	*	8	*	*
01:00	*	*	*	7	*	7	*	*
02:00	*	*	*	0	*	0	*	*
03:00	*	*	*	0	*	0	*	*
04:00	*	*	*	4	*	4	*	*
05:00	*	*	*	5	*	5	*	*
06:00	*	*	*	26	*	26	*	*
07:00	*	*	*	85	*	85	*	*
08:00	*	*	*	101	*	101	*	*
09:00	*	*	88	87	*	88	*	*
10:00	*	*	79	16	*	48	*	*
11:00	*	*	86	*	*	86	*	*
12:00 PM	*	*	98	*	*	98	*	*
01:00	*	*	88	*	*	88	*	*
02:00	*	*	78	*	*	78	*	*
03:00	*	*	100	*	*	100	*	*
04:00	*	*	103	*	*	103	*	*
05:00	*	*	125	*	*	125	*	*
06:00	*	*	75	*	*	75	*	*
07:00	*	*	79	*	*	79	*	*
08:00	*	*	57	*	*	57	*	*
09:00	*	*	60	*	*	60	*	*
10:00	*	*	14	*	*	14	*	*
11:00	*	*	10	*	*	10	*	*
Total	0	0	1140	339	0		0	0
Percentage	0.0%	0.0%	84.8%	25.2%	0.0%		0.0%	0.0%
AM Peak	-	-	09:00	08:00	-	-	-	-
Vol.	-	-	88	101	-	-	-	-
PM Peak	-	-	17:00	-	-	-	-	-
Vol.	-	-	125	-	-	-	-	-
Total		0	1140					

Wayne Street Near Monroe & Madison

Best Times for Enforcement

Location:

Wayne Street

Closest Cross Street:

Monroe

Analysis Dates:

Wednesday, June 20, 2018

Thursday, June 21, 2018

Equipment Used:

Radar Recorder

Requested By:

Slabtown Neighborhood

Sun

Mon

Tue

Wed

Combined: 5 PM to 7 PM

Lane1: 5 PM to 7 PM

Lane2: 11 AM to 1 PM

Thu

Combined: 7 AM to 9 AM

Lane1: 7 AM to 9 AM

Lane2: 7 AM to 9 AM

Fri

Sat

