
Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer
FROM: John Zarafonitis, Seasonal Engineering Aide
DATE: Wednesday, August 6, 2014
SUBJECT: 7 Day Speed Study of Wenonah St., 200 Block between Shawnee St. and
Iroquois St.

City Engineering performed an on-site 7 day speed count beginning Tuesday, July 29, 2014 at 3 pm until Tuesday, August 5, 2014 at 3 pm on the 200 block of Wenonah St. This memo is to formalize City Engineering's initial findings and observations with regard to the speeds of vehicles on the 200 block of Wenonah St. before and after the shoulders were striped.

The data was gathered using a Jamar Radar Recorder which collected traffic data, including vehicle speed, for each lane of traffic (northbound and southbound). This information was then analyzed and the data for each lane compiled into one report, regardless of direction, using TraxPro. The TraxPro report organized the speeds of the vehicles into groups based on 5 mile per hour increments, starting with 0-15 miles per hour. The report shows how many vehicles were within the specified speed range during the time indicated by the report.

During the 7 day study, 6,129 vehicles were recorded on this section of Wenonah St. with about 62 percent of the vehicles traveling between 24 and 33 miles per hour. The average speed of vehicles was 27 miles per hour. 1,796 of these vehicles, about 29 percent, were recorded going speeds below the posted speed limit of 25 miles per hour. The total percentage of enforceable violations was about 30 percent.

A 10 day speed study was done on this section of Wenonah St. before the shoulders were striped from May 19, 2014 until May 29, 2014. The average speed during this time period was 25 miles per hour. 11,744 vehicles were recorded with their 10 mile per hour pace speed being 24 to 33 miles per hour. Of the 11,744 vehicles, 3,825 of them, about 33 percent, were recorded going speeds below the posted speed limit of 25 miles per hour.

The post-striping average speed is two miles per hour higher than the pre-striping average speed. Also, the pace speed was the same before and after the stripes were added, and the percentage of vehicles driving under the posted speed limit was decreased by four percent.

Post-Striping Summary:

- Speed Limit: 25 mph
- Number of Recorded Vehicles (7 days): 6,129
- Percent of Vehicles Under Speed Limit: 29.3 %
- Average Speed: 27 mph
- 10 Mile Per Hour Pace Speed: 24-33 mph
- 85th Percentile: 32 mph

Encl.: Detailed TraxPro Speed Report
Wenonah St., 300 Block Pre-Striping Speed Study Memo

Wenonah St. (Post-Striping)
 (200 Block, between Shawnee St. and Iroquois St.)
 Speed (Combined)

SB, NB	0	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	9999	
08/05/14	0	1	0	1	1	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	4	4	2	1	1	0	0	0	0	0	0	0	12
06:00	0	1	4	11	6	2	0	0	0	0	0	0	0	0	24
07:00	3	2	12	22	12	4	0	0	0	0	0	0	0	0	55
08:00	1	1	16	30	12	4	0	0	0	0	0	0	0	0	63
09:00	0	1	13	25	10	3	0	0	0	0	0	0	0	0	54
10:00	2	2	13	32	14	4	1	0	0	0	0	0	0	0	64
11:00	6	4	12	36	16	4	0	0	0	0	0	0	0	0	78
12 PM	3	5	17	33	26	2	0	0	0	0	0	0	0	0	86
13:00	2	2	5	26	25	2	2	0	0	0	0	0	0	0	64
14:00	0	7	23	31	16	0	0	0	0	0	0	0	0	0	77
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	17	26	121	253	140	23	4	0	0	0	0	0	0	0	584
Grand Total	168	289	1339	2481	1561	269	21	1	0	0	0	0	0	0	6129

Statistics

Mean Speed(Average) : 27 MPH
 10 MPH Pace Speed : 24-33 MPH
 Number in Pace : 3781
 Percent in Pace : 61.7%
 Number of Vehicles > 25 MPH : 4333
 Percent of Vehicles > 25 MPH : 70.7%

15th Percentile : 20 MPH
 50th Percentile : 27 MPH
 85th Percentile : 32 MPH
 95th Percentile : 35 MPH

Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer
FROM: Jessica Cichowski, Engineering Technician
DATE: Thursday, May 29, 2014
SUBJECT: 10 Day Speed Study of Wenonah St, 300 Block

City Engineering performed an on-site 10 day speed count beginning Monday, May 19, 2014 at 12 pm until Thursday, May 29, 2014 at 3 pm on the 300 block of Wenonah St. This memo is to formalize City Engineering's initial findings and observations with regard to the speeds of vehicles on the 300 block of Wenonah St.

The data was gathered using a Jamar Radar Recorder which collected traffic data, including vehicle speed, for each lane of traffic (eastbound and westbound). This information was then analyzed and the data for each lane compiled into one report, regardless of direction, using TraxPro. The TraxPro report organized the speeds of the vehicles into groups based on 5 mile per hour increments, starting with 0-15 miles per hour. The report shows how many vehicles were within the specified speed range during the time indicated by the report.

During the 10 day study, 11,744 vehicles were recorded on this section of Wenonah St with about 58 percent of the vehicles traveling between 24 and 33 miles per hour and an average speed of 25 miles per hour. 3,825 of these vehicles, about 33 percent, were recorded going speeds below the posted speed limit of 25 miles per hour.

Summary:

- Speed Limit: 25 mph
- Number of Recorded Vehicles (10 Days): 11,744
- Percent of Vehicles Under Speed Limit: 32.5 %
- Average Speed: 25 mph
- 10 Mile Per Hour Pace Speed: 24-33 mph
- 85th Percentile: 32 mph

Encl.: Detailed TraxPro Speed Report