
Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer
FROM: John Zarafonitis, Seasonal Engineering Intern
DATE: Monday, September 28, 2015
SUBJECT: 1 Day Speed Study of State St. between Boardman Ave. and Wellington St.

City Engineering performed an on-site 1 day speed count beginning Tuesday, September 22, 2015 at 10 am until Wednesday, September 23, 2015 at 1 pm on State St. between Boardman Ave. and Wellington St. This memo is to formalize City Engineering's initial findings and observations with regard to the speeds of vehicles on State 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. The speed data was also analyzed through TraxPro's Police Report program to evaluate the possible percentage of enforceable violations. This data was then organized into a small colored chart where red means high enforcement potential and green means low on a total scale for enforceable violations of 30 percent. For this report the enforceable minimum speed a vehicle would need to be traveling was set to 5 miles per hour over the posted speed limit.

During the 1 day study, 2,796 vehicles were recorded on this section of State St. with about 75 percent of eastbound vehicles traveling between 16 and 25 miles per hour with an average speed of 23 miles per hour. Westbound vehicles had an average speed of 22 miles per hour, with about 68 percent traveling between 21 and 30 miles per hour. The percentage of westbound vehicles recorded at speeds over 25 miles per hour was 25.5 percent, about 4 percent higher than the around 21 percent of eastbound vehicles traveling at speeds over the posted speed limit.

Summary (Combined):

- Speed Limit: 25 mph
- Number of Recorded Vehicles (1 day): 2796
- Average Speed: 22 mph
- Total Enforcement Rating: Low
- Total Percentage Above Speed Limit: 22.4 %

	Average Daily Traffic (#)	Percent Change (%)
2014 (July)	2579	-12.60
2015 (September)	2254	

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Summary (Directional):

Traffic Direction	Percent Over Speed Limit (%)	Average Speed (mph)	10 Mile Per Hour Pace Speed (mph)	85 th Percentile Speed (mph)
Westbound	25.5	22	21-30	27
Eastbound	20.9	23	16-25	26

Encl.: Detailed TraxPro Speed Reports (Combined and Directional)
TraxPro Enforcement Report