
Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer *TJL*
FROM: Jessica Cichowski, Engineering Technician *JC*
DATE: May 7, 2014
SUBJECT: VCalm Radar Speed Sign, West Front St, 1200 Block

This memo is to formalize City Engineering's initial findings and observations with regard to the speeds of vehicles and the slowing tendencies of drivers as a reaction to the VCalm Radar Speed Sign on West Front St.

City Engineering performed 24/7 speed count beginning Wednesday, April 9, 2014 until Wednesday, May 7, 2014 on the 1200 Block of West Front St, transition zone from a 35 mile per hour speed limit to a 25 mile per hour speed limit.

The data was gathered using a VCalm Radar Speed Sign which collected speed data, volume data, and data on the slowing of vehicles based on initial speed. This information was stored on an SD card and downloaded onto a computer. This data was then uploaded onto the Fortel Traffic (the speed sign developers), analyzed, and presented graphically as well as in the form of a spread sheet.

During the study 90,001 vehicles were recorded with 85 percent of the vehicles traveling less than 36 miles per hour.

Summary:

- Speed Limit: 25 mph
- Number of Recorded Vehicles: 90,001
- Percentages
 - 85th Percentile 36 mph
 - 95th Percentile 40 mph
 - Vehicles Slowing, Initially Traveling Between:
 - 25 and 35 mph 45%
 - 35 and 45 mph 72%
 - 45 and 55 mph 90%

Encl: West Front St Stats

W Front St Radar Sign Statistics

04-09-2014 to 05-07-2014

General Statistics

Speed Limit: 25
 Total Samples : 90001
 Peak 50th: 32
 Peak 85th: 36
 Peak 95th: 40
 Low 50th: 28
 Low 85th: 32
 Low 95th: 36

Incremental Statistics

Of Vehicles Traveling Between 25 And 35 (59758)
 45% Slowed (27000)
Of Vehicles Traveling Between 35 And 45 (19243)
 72% Slowed (13831)
Of Vehicles Traveling Between 45 And 55 (429)
 90% Slowed (384)
Of Vehicles Traveling Between 55 And 65 (5)
 A vehicle Traveled a constant 58 at 11:46:33 on 2014-04-23
 A vehicle Decelerated from 58 to 46 in 3 Seconds at 10:50:55 on 2014-04-24
 A vehicle Decelerated from 56 to 49 in 2 Seconds at 17:19:48 on 2014-04-25
 A vehicle Accelerated from 27 to 56 in 6 Seconds at 07:35:59 on 2014-04-26
 A vehicle Traveled a constant 56 at 00:01:33 on 2014-04-27

