
Memorandum

The City of Traverse City
Engineering Department



TO: Timothy J. Lodge, P.E., City Engineer
FROM: John Zarafonitis, Seasonal Engineering Aide *JZ*
DATE: Monday, July 21, 2014
SUBJECT: 24 Hour Speed Study of N. East Bay Blvd., 400 Block between Eastern Ave. and Western St.

City Engineering performed an on-site 24 hour speed count beginning Thursday, July 17, 2014 at 3 pm until Friday, July 18, 2014 at 3 pm on the 400 block of N. E. Bay Blvd. This memo is to formalize City Engineering's initial findings and observations with regard to the speeds of vehicles on the 400 block of N. E. Bay Blvd.

The data was gathered using a Jamar TRAX Mite 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 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 24 hour study, 823 vehicles were recorded on this section of N. E. Bay Blvd. with about 65 percent of vehicles traveling between 25 and 34 miles per hour. The average speed of vehicles was 28 miles per hour. 532 vehicles, about 79 percent, were recorded traveling at speeds over the posted limit of 25 miles per hour.

Summary:

- Speed Limit: 25 mph
- Number of Recorded Vehicles (24 hours): 823
- Percent of Vehicles Under Speed Limit: 21.3 %
- Average Speed: 28 mph
- 10 Mile Per Hour Pace Speed: 25-34 mph
- 85th Percentile for both : 33 mph

Encl.: Detailed TraxPro Speed Report

N. E. Bay Blvd.
 (400 Block, between Eastern Ave. and Western St.)
 Speed (Combined)

SB, NB	Start Time	0	15	16	20	21	25	26	30	31	35	36	40	41	45	50	51	55	60	61	65	70	71	75	76	Total
07/17/14		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00		3	3	1	1	6	8	18	41	11	4	4	0	0	0	0	0	0	0	1	1	0	1	1	1	46
16:00		1	1	1	8	8	41	18	26	11	9	9	1	0	0	0	0	0	0	0	0	0	0	0	0	87
17:00		2	2	1	12	12	17	28	27	27	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	66
18:00		0	0	0	8	8	28	18	16	16	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	56
19:00		0	0	3	13	13	18	15	11	11	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	47
20:00		0	0	0	6	6	15	11	9	9	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	35
21:00		0	0	2	8	8	11	6	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	25
22:00		0	0	0	4	4	6	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
23:00		0	0	0	1	1	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Day Total		6	6	8	66	157	107	32	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	380

N. E. Bay Blvd.
(400 Block, between Eastern Ave. and Western St.)
Speed (Combined)

SB, NB	Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	60	61	65	70	71	75	76	Total	
07/18/14	0	15	16	20	21	25	26	30	31	35	40	41	45	46	50	51	55	60	61	65	70	71	75	76	9999	76	
01:00	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	1	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
06:00	0	0	1	1	2	4	4	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
07:00	3	3	1	1	3	10	10	12	12	12	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
08:00	0	1	1	1	8	21	21	19	8	10	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
09:00	3	1	1	1	8	21	19	19	8	10	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
10:00	0	0	0	0	12	22	22	22	12	12	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	50
11:00	2	2	2	2	15	24	24	24	22	22	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
12 PM	2	2	1	1	5	21	21	21	29	29	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	63
13:00	2	2	2	2	11	29	29	29	15	15	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
14:00	1	1	1	1	9	34	34	34	20	20	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	70
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Day Total	14	10	10	74	187	132	22	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	443
Grand Total	20	18	140	344	239	54	2	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	3	823	

Statistics

Mean Speed(Average) : 28 MPH
 10 MPH Pace Speed : 25-34 MPH
 Number in Pace : 532
 Percent in Pace : 64.9%
 Number of Vehicles > 25 MPH : 645
 Percent of Vehicles > 25 MPH : 78.7%

15th Percentile : 22 MPH
 50th Percentile : 28 MPH
 85th Percentile : 33 MPH
 95th Percentile : 36 MPH