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DEPARTMENT OF INFRASTRUCTURE ENGINEERING

INITIAL TRAFFIC RE-EVALUATION

TO: Transportation Advisory Committee

FROM: Jason L. Mammone, P.E., Director of Engineering

DATE: September 26, 2014

SUBJECT: Traffic Calming Request #2012-002 – Jersey Street

Purpose

The Transportation Advisory Committee (TAC), at their 09/16/14 public meeting, discussed the Initial Evaluation performed by the Engineering Department for Jersey Street, dated 12/20/13, with the concerned residents and neighbors of the Jersey Street area that were in attendance that evening. The residents and neighbors in attendance did not feel as though the data presented in the initial evaluation accurately depicted the speeds of the vehicles traveling on Jersey Street. Based upon the feedback provided by the residents and neighbors, the TAC requested that the Engineering Department perform a second traffic study to re-evaluate the speed and volume of vehicles traveling on Jersey Street. This re-evaluation report summarizes the findings of the Engineering Department.

Study Area

Jersey Street is an east/west thickly settled residential through street with a pavement width of approximately 24 feet between Central Avenue and York Street and approximately 22 feet from York Street to East Street. Jersey Street is approximately 1,335 feet (0.25 miles) in length. Jersey Street was repaved in 2008 from East Street to approximately 920 feet east of Central Avenue as part of the East Street Phase II project and overlaid in 2010 from approximately 920 feet east of Central Avenue to Central Avenue as part of the Town's ongoing pavement management program. There is a 5 foot wide asphalt sidewalk on the northerly side of Jersey Street from East Street to house #31 (approx. 395'). Vehicles are parked sporadically along both sides of the roadway by residents. Bordering vegetative wetlands abut Jersey Street from about 575 feet east to about 315 feet east of Central Avenue and a stream passes underneath the roadway via twin 36" concrete culverts within this same area.

The prima facie speed limit on Jersey Street is 30 mph. A prima facie speed limit is a default speed limit that applies when no other specific speed limit is posted. According to Massachusetts General Laws (MGL), Chapter 90, Section 17; unless posted otherwise, your speed would not be reasonable and proper if a motor vehicle is operated in excess of:

- 20 mph in a school zone
- 30 mph in a thickly settled or business district
- 40 mph outside a thickly settled or business district
- 50 mph on a highway outside a thickly settled or business district

2013 Observations

The Town of Dedham utilized a Jamar Radar Recorder to log the speed and volume of vehicles on Jersey Street during the period beginning December 2, 2013 and ending December 5, 2013. The counter was located on a utility pole at station 7+13 which is located across the street from #58 Jersey Street (See Attached Locus Plan).

Jersey Street

The volume of traffic expressed as average daily traffic (ADT) on Jersey Street was found to be 377 vehicles per day, with 53% of vehicles travelling westbound and 47% traveling eastbound. The combined average speed for both directions was found to be 26 mph. The combined 85th percentile speed for both directions was found to be 31 mph. The 85th percentile speed is significant since it is used to determine appropriate speed limit postings and eligibility requirements for traffic calming. The 85th percentile speed indicates that the majority of the vehicles are travelling at about the prima facie speed limit of 30 mph.

2014 Observations

The Town of Dedham utilized a Jamar Radar Recorder to log the speed and volume of vehicles on Jersey Street during the period beginning September 22, 2014 and ending September 26, 2014. The counter was located on the same utility pole as was used in the 2013 observations at station 7+13 which is located across the street from #58 Jersey Street (See Attached Locus Plan).

Jersey Street

The ADT for Jersey Street for this round of observations was found to be 383 vehicles per day, with 50% of vehicles travelling westbound and 50% traveling eastbound. The combined average speed for both directions was found to be 26 mph. The combined 85th percentile speed for both directions was found to be 32 mph. The 85th percentile speed indicates that the majority of the vehicles are travelling at about the prima facie speed limit of 30 mph.

Conclusion

The data collected during the 2014 observations indicated that there are no significant differences as compared to the 2013 observations, therefore traditional traffic calming measures are not recommended for Jersey Street based upon the following:

- Jersey Street does not meet the eligibility requirements for traffic calming as a means to mitigate speeding since the measured 85th percentile speed of 31 mph and 32 mph is not greater than 5 mph above the prima facie speed limit of 30 mph.
- With the even distribution of eastbound and westbound traffic, it does not appear as though Jersey Street is being used as a cut through but rather accessed by residents who live within the immediate area.
- Jersey Street does not experience a higher than normal volume of vehicles. The observed ADT of 377 and 383 vehicles per day experienced on Jersey Street is consistent with other residential streets in Dedham with similar characteristics to Jersey Street.

Although traditional traffic calming measures are not recommended, the following low-cost traffic calming measures could be utilized and/or taken on by the residents and neighbors of the Jersey Street area:

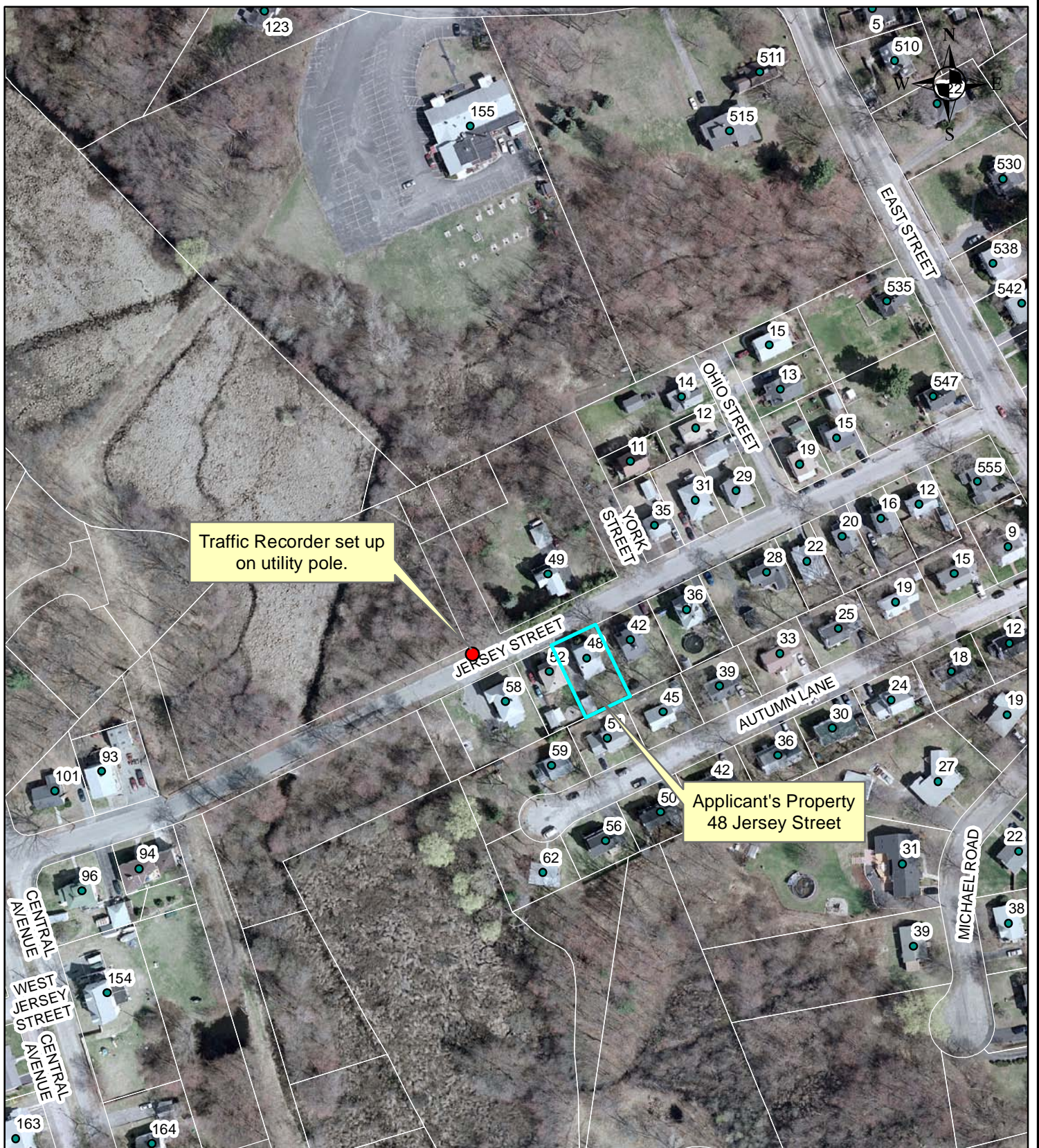
- Purchasing a Step2 Kid Alert Visual Warning System – These can be purchased at Toys R' Us, Wal-Mart, Amazon.com and other similar retail and online stores for about \$25 to \$35. The Step2 Kid should be placed at the end of your driveway so it is visible to motorists. This should only be placed out during times when kids are actually outside in the yard playing. By having it out all the time, it will reduce its effectiveness. Studies have shown that when used properly, it usually aids in the reduction of vehicle speeds.



Photo of Step 2 Kid Alert

- Work with your neighbors to park your cars on either side of the street in a staggered fashion as to reduce the openness of the roadway while still allowing for the safe passage of emergency response vehicles (i.e. Police, Ambulance, Fire Engine). This measure physically narrows the roadway making the motorist slow down to negotiate by the parked vehicles. The cars should not be parked on existing sidewalks blocking the pedestrian pathway but rather up against the curb.
- Create pamphlets or flyers that can be passed out in the neighborhood that discuss your concerns of speeding vehicles on Harvard Street making people aware that they should drive cautiously.

Attachments: Jersey Street Locus Map
2014 Combined Speed Statistics Report
2014 Traffic Volume Report



Traffic Recorder set up on utility pole.

Applicant's Property
48 Jersey Street



**JERSEY STREET
REQUEST #2012-002
LOCUS MAP**





Town of Dedham Engineering Department

55 River Street
Dedham, MA 02026
(781) 751-9350

Site Code: 00000025
Station ID: Sta. 7+13
Jersey Street
On Utility Pole Across From #58
Latitude: 0' 0.0000 Undefined

COMBINED

Report for 9/22/2014 2:17:48 PM to 9/26/2014 11:00:16 AM

SPEED STATISTICS - 15 to 70+ by 5 MPH

Speed in MPH	1 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	51 - 55	56 - 60	61 - 65	66 - 70	71 - 75	76 - 999
Count	75	130	374	576	262	51	6	0	0	0	0	0	0	0
Percent	5.1	8.8	25.4	39.1	17.8	3.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Over Speed	15	20	25	30	35	40	45	50	55	60	65	70	75	999
Count	1399	1269	895	319	57	6	0	0	0	0	0	0	0	0
Percent	94.9	86.1	60.7	21.6	3.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percentile	5%	10%	15%	45%	50%	55%	85%	90%	95%					
Speed	15	19	21	26	27	27	32	33	35					

Average 26
(Mean)

Pace Speed 22-31
Number in 988
Pace
Percent in 67.0
Pace



Town of Dedham
Engineering Department
55 River Street
Dedham, MA 02026
(781) 751-9350

Site Code: 00000025
Station ID: Sta. 7+13
Jersey Street
On Utility Pole Across From #58
Latitude: 0' 0.0000 Undefined

COMBINED

Speed	Volume
7	2
8	2
9	2
10	5
11	13
12	12
13	14
14	13
15	12
16	21
17	16
18	20
19	29
20	44
21	39
22	68
23	76
24	75
25	116
26	131
27	117
28	120
29	105
30	103
31	77
32	64
33	47
34	45
35	29
36	18
37	20
38	9
39	2
40	2
41	2
42	2
43	2

