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DEPARTMENT OF INFRASTRUCTURE ENGINEERING

INITIAL TRAFFIC EVALUATION

TO: Transportation Advisory Committee

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

DATE: December 20, 2013

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

Purpose

The Transportation Advisory Committee (TAC), at their 11/12/13 meeting, reviewed the traffic calming request form (#2012-002) submitted by Katherine Barlett of 48 Jersey Street. Based upon the information provided in the form, Ms. Barlett's concerns were the speed at which vehicles travel on Jersey Street, the volume of vehicles that utilize Jersey Street as a cut-through to other sections of Town and children safety due to lack of sidewalks. The TAC determined that this request warranted an initial evaluation to determine the actual speeds and volumes on Jersey Street and requested that the Engineering Department investigate this matter. This report summarizes the findings of the Engineering Department.

It should be noted that on 12/5/13, the Engineering Department was recovering the traffic recorder on Jersey Street and was approached by a Jersey Street resident. The resident was curious as to what was going on. It was mentioned to the resident that the resident from #48 Jersey Street had submitted a traffic calming request form and the Engineering Department was performing an initial evaluation of the traffic on Jersey Street. The resident was confused because they were from #48 Jersey Street and did not recall submitting a request. After a little discussion it was realized that the resident had recently moved to #48 Jersey Street and the resident who submitted the application no longer lived there. The signature page has 15 other signatures that the TAC could consider reaching out to in lieu of the applicant for purposes of discussing the request.

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. As stated in the latest version of the Commonwealth of Massachusetts Driver's Manual; unless posted otherwise, your speed would not be reasonable and proper if you drive over:

- 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.

Crash Data

The Engineering Department also analyzed crash data utilizing the most recent 2004-2010 data available from the Massachusetts Highway Department to determine if the subject area was experiencing a higher than normal rate of accidents. Upon review of the MassHighway data, it was determined that there were no accidents along Jersey Street within that timeframe.

Conclusion

Traffic calming is 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 31mph 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 vehicles per day experienced on Jersey Street is consistent with other residential streets in Dedham with similar characteristics to Jersey Street.
- Based upon the 7 years of crash data there have been no accidents, especially pedestrian accidents. Based upon this information it does not appear as though there is a pedestrian safety issue even with the limited amount of existing sidewalk.

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



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



TOWN OF DEDHAM, MASSACHUSETTS



Town Of Dedham Engineering Department

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

Site Code: 0000020
Station ID: Sta. 7+13
Jersey Street
On utility pole across from #58

COMBINED

Report for 12/2/2013 2:30:44 PM to 12/5/2013 10:34:36 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 | 57 | 118 | 305 | 396 | 146 | 35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 5.4 | 11.2 | 28.8 | 37.4 | 13.8 | 3.3 | 0.1 | 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 | 1001 | 883 | 578 | 182 | 36 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent | 94.6 | 83.5 | 54.6 | 17.2 | 3.4 | 0.1 | 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 | 18 | 20 | 25 | 26 | 27 | 31 | 32 | 34 | | | | | |

Average 26
(Mean)

Pace Speed 21-30
Number in 701
Pace
Percent in 66.3
Pace



Town Of Dedham Engineering Department

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

Site Code: 00000020
Station ID: Sta. 7+13
Jersey Street
On utility pole across from #58

COMBINED

| Speed | Volume |
|-------|--------|
| 8 | 2 |
| 9 | 8 |
| 10 | 7 |
| 11 | 7 |
| 12 | 5 |
| 13 | 5 |
| 14 | 13 |
| 15 | 10 |
| 16 | 12 |
| 17 | 19 |
| 18 | 20 |
| 19 | 25 |
| 20 | 42 |
| 21 | 46 |
| 22 | 53 |
| 23 | 57 |
| 24 | 64 |
| 25 | 85 |
| 26 | 87 |
| 27 | 86 |
| 28 | 78 |
| 29 | 87 |
| 30 | 58 |
| 31 | 46 |
| 32 | 47 |
| 33 | 23 |
| 34 | 17 |
| 35 | 13 |
| 36 | 17 |
| 37 | 11 |
| 38 | 3 |
| 39 | 3 |
| 40 | 1 |
| 41 | 0 |
| 42 | 0 |
| 43 | 0 |
| 44 | 1 |

