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LOCATED AT
Department of Public Works
75 West Street
Natick, Massachusetts
01760



Town of Natick • Public Works

TO: Karen Adelman-Foster, Chair Select Board
Robert Rooney, Acting Town Administrator

FROM: Jeremy Marsette, P.E.
Director of Public Works

DATE: May 19, 2021

SUBJECT: 2021 Annual Roadway Improvement Project
Five-Year Roadway Improvement Plan

To assist with the Select Board's consideration of the contract award for the 2021 Annual Roadway Improvements Project included on the Consent Agenda for your May 19th meeting please find the below and attached. The proposed roadway work for this construction season was presented in summary at the March 10th meeting of the Select Board. The proposed work has also been reviewed at meetings of the Safety Committee and Transportation Advisory Committee. To further inform the project a working group of Safety Committee members meet regularly during development of the design plans and bid documents. Attached please find a summary of roadway work completed for calendar years 2018 through 2020 and a listing of roadways included in the work proposed for this season (2021). A copy of the 'door hanger' notice distributed to project abutters is attached and, similar to other Department projects, a weekly progress report of work will be compiled and distributed once the work starts.

A listing of roadways proposed for inclusion in next year's annual roadway construction project (2022) is attached. The targeted neighborhood south of Pond Street and Dug Pond includes a patchwork of public roadways and segments of unaccepted (private) roadways. A portion of the capital funds approved at the 2021 Spring Annual Town Meeting for preparation of roadway layout plans will be used to prepare the necessary acceptance plans for these unaccepted ways. It is anticipated these roadways would be brought forward for public acceptance at the 2021 Fall Annual Town Meeting. In the coming months, information will be presented for the Board's consideration regarding these roadway acceptances.

The Five-Year Roadway Improvement Plan is informed by a comprehensive and current condition inventory of the Town's roadways and sidewalks. Condition information is updated annually and analysis is performed to ensure the efficient use of town funds. The annual roadway improvement projects are also developed in coordination with private utility companies, town water/sewer projects, and concurrent and planned projects (among other considerations).

Included with this memorandum please find a summary of the 2021 annual condition update for the Town's public roadways prepared by our consultant Stantec, including an overview map. This update shows the overall Pavement Condition Index (PCI) is currently at 62.5 after the work completed last year. Please recall the PCI is an industry standard rating metric from 0 to 100 (with 0 the lowest condition and 100 representing a newly constructed roadway). The current PCI is a small improvement from the 61.6 rating from the year prior. Based on the targeted annual funding level of \$3.5 million (\$2.5 m local and \$1 m Chapter 90 State Aid) the town wide average PCI is projected to increase to 68.3 over the next seven (7) years. Many communities target a town wide average PCI of 70 or above.

An online map depicting the various construction projects underway and proposed within Natick (including the roadways in the Five-year Roadway Improvement Plan) can be found at:

<https://www.natickma.gov/1461/Projects>



Five-year Roadway Improvement Plan

2018 Statistics

20 Streets, 2.9 miles - \$1.9 Million

Cottage Street, 1.2 miles -

2019 Statistics

17 Streets, 4.5 miles - \$2 Million

2020 Statistics

22 Streets, 4.74 miles - \$2.5 Million

Bennett Hemenway Elementary School Parking

Preventative Maintenance - Crack Sealing 10 Streets

Sidewalk and Ramp Replacements - Natick Center and Walnut Street

Washington Avenue, 0.5 miles - \$1.75 Million

South Main Street, 1.4 miles - \$4.6 Million



Five-year Roadway Improvement Plan

Work Proposed for 2021

23 Streets, 4.28 miles - \$2.8 Million

- Vetted with Transportation Advisory Committee and Safety Committee
- Coordinated with water/sewer and natural gas

Avon Street

School Street

Garfield Street

Common Street

Morse Street

Sheridan Street

Lincoln Street

Lincoln Street Ext

Bacon Street (east end)

Stevens Circle

Lincoln Circle

Allen Street

Park Street

Sherman Street

Sherman Terrace

Wilson Street

Church Street

East Street

Pauline Drive

Fox Hill Drive



Five-year Roadway Improvement Plan

Work Proposed for 2022 (Funding to be requested at 2021 FATM)

22 Streets, 4.5 miles - \$3.25 Million

- Vetting with Transportation Advisory Committee and Safety Committee
- Ongoing coordination with water/sewer and natural gas

Bunker Lane

Fern Street

Draper Street

Hudson Street

Herbert Road

Carlson Circle

Moore Street

Meadow Pond Lane

*Windsor Avenue **

*Lakeview Avenue **

*Fairview Avenue **

Fiske Street

Sylvester Road

Fiske Lane

Lena Road

Bolser Avenue

Proctor Street

Eastleigh Lane

*Collins Avenue **

*Course Brook Lane **

*Barchstead Place **

*Green Street **

** Subject to Town Meeting Public Way Acceptance*

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Town of Natick • Public Works

SPRING 2021 PAVEMENT/ROADWAY IMPROVEMENTS

The Natick DPW has solicited bids from paving contractors to perform pavement improvements on the roads in your neighborhood. We will be opening the bids at the end of April and expect to be starting construction in early to mid June.

As you know, Eversource Gas and the Natick Water Division have already been working in your neighborhood, replacing individual service lines and older gas mains ahead of the paving work this summer. Once the street has been paved, no new excavation work will be allowed in the roadway for five years.

On most of the streets in the neighborhood, the pavement will be pulverized, then the gravel road base will be graded and compacted. This allows the contractor to recycle the old pavement material and helps to improve the gravel foundation by compacting and reshaping the road crown to help drain the street. The sidewalks in most streets will be replaced and will be installed to conform to state and federal accessibility standards and sidewalk access ramps will be installed at roadway intersections.

Pulverizing and grading work will be loud, dusty and will remove the paved surface of the roadway. The contractor will immediately follow the reclamation work with pavement installation, but the length of the road may mean that the surface of the road will be gravel for several days. The contractor is responsible for dust control. If you are having problems with dust during construction, please call the Engineering Division at **508-647-6551**.

Construction will take place over the Summer and into Fall. The initial work will be the road reclamation (pulverizing) followed by new roadway paving, which is then followed by the sidewalk and driveway apron work. Driveway apron work will be marked in paint on your driveway by the contractor usually about a day prior to cutting and removing the pavement. Driveway pavement installation will follow when the sidewalks are installed. The driveway apron may be unpaved for several days. If you have concerns regarding the driveway apron work or are having problems getting in or out of your driveway, please call the Engineering Division.

The work will occur within the Town's right of way. As a general rule, the right of way extends to the back edge of sidewalk. There are some shrubs and some trees that will require trimming or removing in order for the machines to install the pavement to the proper width. We try to minimize trimming work but in some cases the landscaping is within the right of way and needs to be removed.

Some homes have automatic underground sprinklers installed in the lawn. In some cases these are also installed within the right of way. To prevent damage, the Engineering Division requests that you mark your sprinkler heads where they abut or are near (+/- 12") to the sidewalk, the road or your driveway. The Engineering Division has small flags that can be used for marking sprinkler heads.

We are looking forward to working on the roads in your neighborhood to improve the road and sidewalk surfaces. If you have questions or concerns regarding this work, please call the number provided and we can speak to you or meet on site to talk about the proposed work.



Stantec Consulting Services Inc.
65 Network Drive 2nd floor, Burlington MA 01803

March 16, 2021

Jeremy Marsette
Director of Public Works
75 West Street
Natick, MA 01760

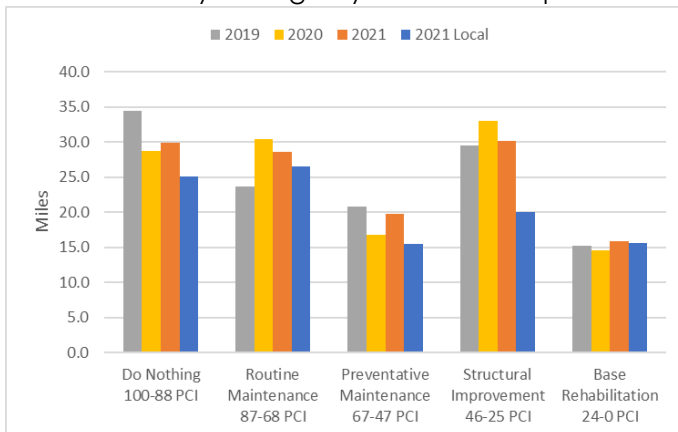
Subject: **FY2021 State of Street Conditions Report - Revised**

Dear Mr. Marsette,

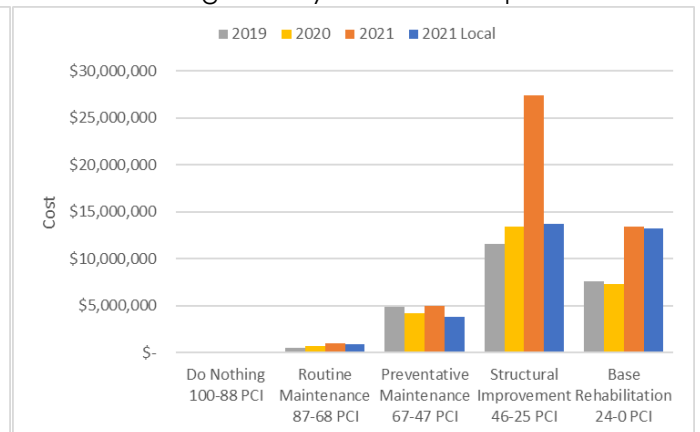
Stantec updated the Town's pavement database with pavement repairs completed (excluding crack sealing) over the past 2 years, updated unit repair costs to include sidewalk improvements, and developed a new "Local" roadway network to separately monitor and track conditions and investments going forward in Natick. Below are some key takeaways:

1. Natick's Pavement Management System (PMS) was implemented by Stantec in 2019 and has assisted maintaining its PMS and tracking several important performance metrics.
2. Stantec determined the average PCI for public-accepted roadways is 62.5, which is slightly better than last year's value of 61.6. The current public-accepted roadway backlog is approximately \$46.8 million. Note, this backlog is significantly higher than reported last time as it now includes sidewalk improvement costs. Sidewalk costs generally run about 75% more than pavement costs.
3. Stantec created a new local roadway network (Local Streets) that excludes 'capital repair' streets. Stantec determined the average PCI for the local roadways is 62.5 and the backlog is approximately \$31.7 million.
4. Below are bar charts for miles and costs dedicated to the different treatment repair bands of the two (2) roadway networks being tracked in Natick. Note the increase in backlog costs on the 2021 (public accepted roadway) bars for Structural Improvement and Base Rehabilitation, this is due to the new sidewalk costs now associated with pavement repairs in these repair treatment bands.

Roadway Mileage by Treatment Repair



Backlog Cost by Treatment Repair



5. Lastly, Stantec developed three (3) different future budget scenarios for the new “Local Streets” projected over the next seven (7) years for your review.
- \$3.0M/year – PCI increases to 65.9 and backlog decreases to \$35.9M in FY 2028
 - \$3.5M/year – PCI increases to 68.3 and backlog decreases to \$32.2M in FY 2028
 - \$4.0M/year – PCI increases to 73.6 and backlog decreases to \$24.5M in FY 2028

If you have any questions or comments pertaining to this memo, please don't hesitate to contact me, at (781) 221-1165 or by email at william.scarpati@stantec.com.

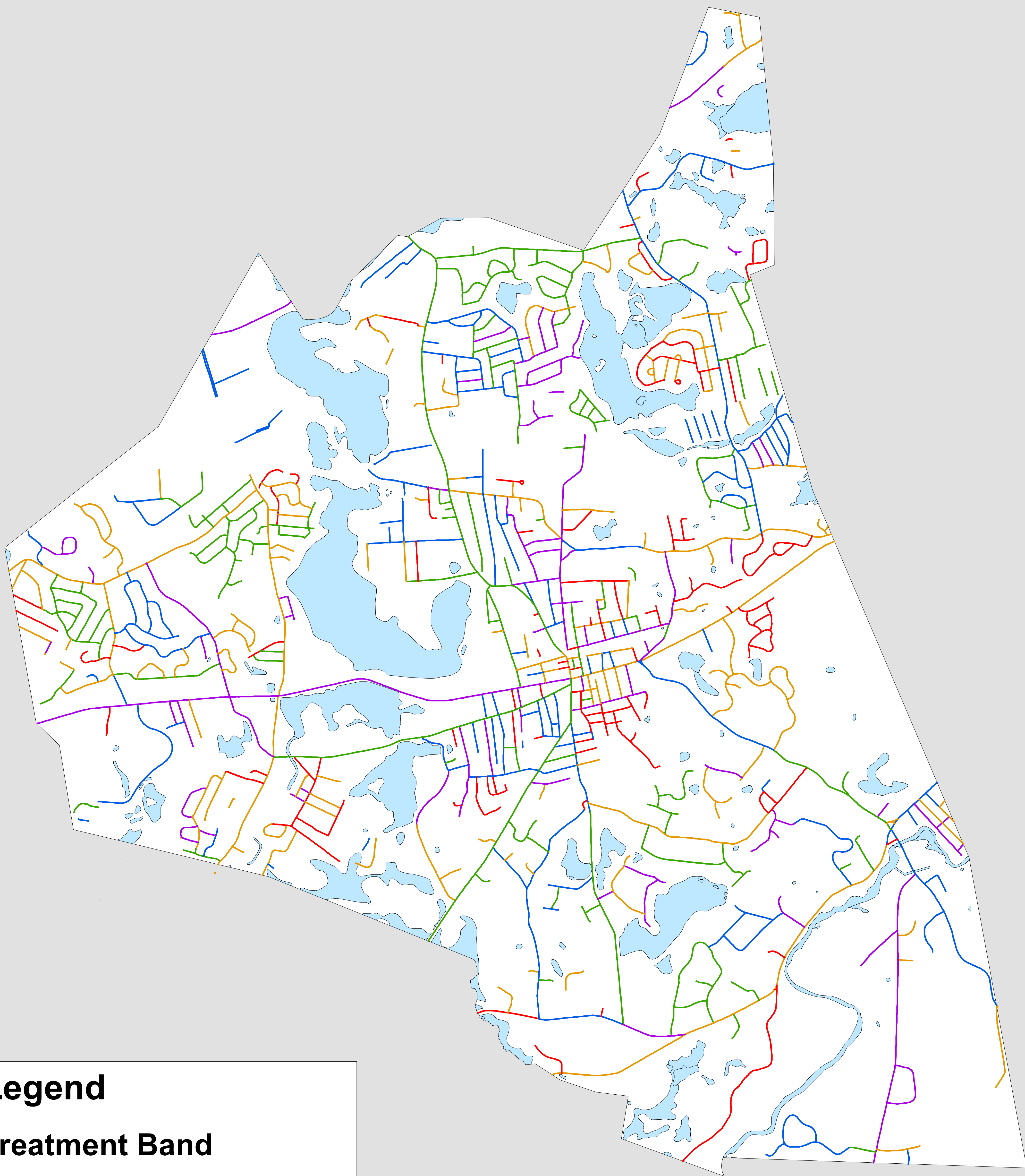
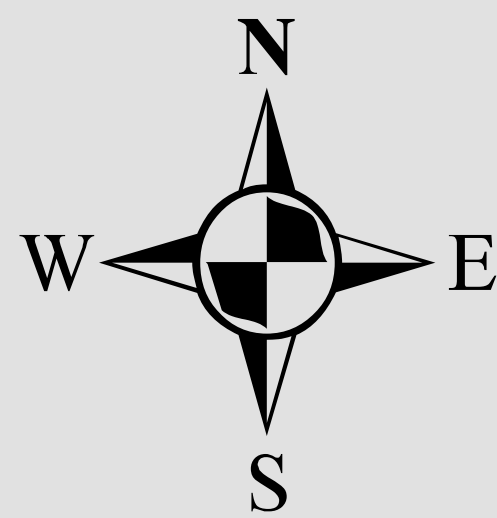


Very truly yours,
Stantec

William Scarpati

William P. Scarpati
Associate

Natick, MA
Public Accepted
2021 Pavement Conditions



Legend

Treatment Band

- Do Nothing
- Routine Maintenance
- Preventative Maintenance
- Structural Improvement
- Base Rehabilitation

PCI = 62.5
Backlog = \$46,772,956