

DPW Regulations 2022
Regulation #DPW2022-001
Date: November 1, 2022

POLICY FOR ROADWAY MAINTENANCE PRIORITIZATION
TOWN OF BRIDGEWATER DEPARTMENT OF PUBLIC WORKS ROADWAYS DIVISION

INTRODUCTION:

The Town of Bridgewater’s Department of Public Works, through its Roadways Division, is responsible for the maintenance of the Town’s roadway network (over 136 miles of roadway length) to ensure the health, safety, and welfare of its residents as they travel over the roadways by car, truck, bicycle, and foot. The maintenance of the roadways is multi-dimensional, involving removal of storm debris and falling trees that may have fallen across a roadway; street sweeping; filling of potholes or sinkholes; repairing cracks using crack sealants; milling and paving of deteriorated road surfaces; full depth excavation and reconstruction of road subgrade and pavement resurfacing; repair and/or replacement of failing and deteriorated drainage infrastructure (*pipes, culverts, outfalls, etc.*) that could undermine the roadway.

Roadway’s Classification: The Town’s Road network is composed of roadways that are classified into several categories, based on the length of the roadway and its service level (ADT: Average Daily Traffic).

- A “local road” is defined as a road that serves abutting land uses (*an example would be a subdivision road*).
- A “sub-collector road” is defined as a road that serves abutting land uses and conveys traffic from local roads to collector roads or arterial roads (*an example would be Crescent Street which runs from South Street to Pleasant Street, it serves to convey traffic from Crescent Drive and Fremont Street to either South Street or Pleasant Street*).
- A “collector road” serves to convey traffic from local roads and sub-collector roads to arterial roads (*examples would be High Street, South Street, Vernon Street*).
- An “arterial road” serves to convey traffic from local roads, sub-collector roads and collector roads to major roadways and highways (*examples would include Bedford Street, Main Street, Pleasant Street, and Summer Street*).

To better quantify and qualify the Town’s road conditions, in 2019 the Town commissioned a study to review the surface condition of every street and sidewalk in Bridgewater. Street Logix, a software development and management firm that developed Street Scan, applied its pavement management and ranking system in evaluating the Town’s roadways’ pavement conditions. Every street and sidewalk was scanned electronically and ranked from fair to worst using color codes (green for fair condition, and red for the worst condition, other colors represent road conditions between fair and worst).

Street Scan does not evaluate other subsurface factors such as drainage system conditions, aging water main conditions, or sewer main conditions. The data to determine these conditions are

obtained from internal and external engineering design work, system evaluations and studies. To obtain a comprehensive assessment of all systems conditions, both surface and subsurface conditions are assessed and quantified prior to establishing the annual maintenance plan or any major capital project plans.

POLICY:

Capital Projects: Evaluation, Prioritization, Decision Making, and Funding:

- Maintenance Projects – Funded by Chapter 90 State Grant Funding

To prioritize and decide which roadways are selected for maintenance in a given year, the DPW’s evaluation staff, primarily composed of the DPW Director, the Roadways Superintendent, and the Town Engineer, utilizes Street Scan in conjunction with other factors, including roadway classification category, drainage/stormwater system conditions, water main replacement needs, sewer main replacement needs, current pavement conditions, and budgetary considerations.

Annually the Chapter 90 Grants are spent on the maintenance projects which have been approved by the state without requiring any further local action.

For example, sub-collector or collector roads requiring mill and pave or minimal drainage system upgrade, without any need for major drainage water main or sewer main replacements, would be prioritized over a local road. Since Chapter 90 local aid funding from the state is used for maintenance of roads, maintenance work that does not involve major drainage work or water and/or sewer main replacement would be paid for utilizing Chapter 90 funds.

- Reconstruction Projects – Project costs equal to or greater than \$750,000

Funded by special grants & Town general obligation debt. These projects require major capital investment for roadway reconstruction, drainage system replacement, water and/or sewer main replacement.

Annually (or as required), data is obtained and analyzed from internal and external engineers and system evaluations and studies which inform the DPW’s review and evaluation of the annual capital plan. This review results in a prioritization of capital projects and assist the decision-making process. The evaluation work is conducted by the DPW director and his staff, composed of the DPW Director, the Town Engineer, Roadways Superintendent, and the Water & Sewer Superintendent. This process may also include external consultants commissioned to complete relevant reports, studies, engineering estimates, and construction estimates.

A scoring system¹ is used that assigns a weighted average score for each roadway category, pavement conditions, drainage conditions, and water and sewer distribution and treatment system. This information is used to make decisions concerning the scheduling of reconstruction projects. These projects are added to the annual 5-year capital improvement program for adoption by the Town Council.

Annually or as required, the Town seeks Transportation Improvement Program funds, or other available grant funds for the Capital Improvement Plan projects whenever and wherever possible. Debt will serve as the major funding source for the reconstruction projects - serviced through taxation (Debt Exclusion) and/or from Water/Sewer Rates.

The capital appropriation process balances the financing costs and the ongoing service delivery costs against the benefits to the residents and business owners in the town.

¹ See Table 1