



Title: Street Sweeping		
Department: Highway		
SOP Number: HWY-NPDES-01	Revision Number: Rev 0	Date: (mm/dd/yyyy) 10/17/2022

Revision History:

Revision Number	Date (mm/dd/yyyy)	Brief Description of Change(s)	Amended By:
0	10/17/2022	Draft standard operating procedures	Rhain Hoyland

1.0 PURPOSE

To establish Standard Operating Procedures (SOP) for street and parking lot sweeping. The program will incorporate industry best practices and requirements under the National Pollutant discharge elimination system (NPDES) phase 2 storm water permit. Sweeping paved surfaces in a timely manner reduces debris that washes into the storm water drain system. Timely sweeping will reduce storm drain cleaning and fine particle pollution discharged into wetlands and rivers. In addition, sweeping improves vehicle and pedestrian health and safety and quality of life for citizens and the traveling public. The Town shall provide these services at the most efficient and cost-effective manner.

2.0 SCOPE

All town owned streets and parking lots will be cleaned by hand blowers, mechanical broom and/or vacuum sweepers as outlined. Debris will be deposited directly into dump trucks and hauled to the Needham RTS where it will be weighed and recorded. The sweeping debris will be stored at the RTS material processing area labeled street sweepings. The debris will be hauled to a permitted landfill site on a regular basis or at least 3 times per year in compliance with MA DEP rules and regulation. Detailed sweeping records will be maintained by the Assistant Highway Superintendent for all sweeping activity.

3.0 GENERAL PROCEDURE & OPERATING PLANS

Sweepers and equipment will operate according to manufacturer's recommended setting, standards, and procedures. Needham's sweeping operations are performed by in-house personnel and hired contractors. Major Storms that require street sweeping and heavy debris removal are completed on a case-by-case basis using town and/or hired contractor equipment. The sweeping program is annual.

4.0 ANNUAL STREET AND PARKING LOT SWEEPING

Spring street sweeping will be Town wide and begins as weather allows, usually in March or early April and is completed within 3 weeks. Two Town mechanical sweepers and two contractor vacuum sweepers will operate in teams. One town mechanical sweeper will be followed by one contractor vacuum sweeper. The mechanical sweepers will pick up the bulk of the winter debris and the vacuum sweeper picks up the finer material. This tandem operating method is an industry best practice for spring street sweeping.

Fall street sweeping will be Town wide and begins in September and is usually completed within 3 weeks. One town mechanical sweeper will be followed by one contractor vacuum sweeper. The

mechanical sweepers will pick up the bulk of the debris and the vacuum sweeper picks up the finer material. This tandem operating method is an industry best practice.

Downtown and Heights Business District sweeping will be weekly beginning in March thru the end of November by a Town mechanical sweeper. One Town mechanical sweeper will sweep the area shown on the Downtown and Height's Business District Sweeping Plan every other Monday and every Friday, 3AM to 7AM. Once per month sidewalk debris will be swept into the roadway by mechanical broom mounted to a zero turn and/or power broom in advance of the street sweeper.

Municipal building and public parking lot sweeping will be three times per year (spring, summer, and fall) between 11PM and 7AM. One town mechanical sweeper and 6 staff using power and hand brooms will sweep adjacent sidewalks and parking lot corners into the lots so that the sweeper can pick up the debris.

School parking lot sweeping will be twice per year spring and late fall in coordination with the Building Maintenance Director. One town mechanical sweeper and 6 staff using power and hand brooms will sweep adjacent sidewalks and parking lot corners into the lots so that the sweeper can pick up the debris.

The Rosemary Pool Complex will be swept 4 times per year or as needed according to the permeable pavement maintenance plan. A contractor vacuum sweeper will pick up the fine debris. This parking lot has a permeable pavement system and requires vacuum sweeping to remove debris.

Public Services Administration Building and 470 Dedham Ave will be swept 4 times per year or more as contained in the building permit. Currently swept Friday mornings

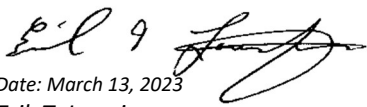
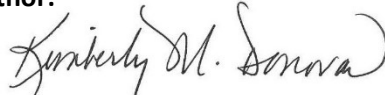
Special Event such as 4th of July and Fairs will be swept the day before and immediately after the event by town mechanical sweeping. The area and timing will be as directed by the supervisor on a case-by-case basis.

Rubber Chip Seal is a road maintenance and preservation treatment that is applied in the summer months. The process involves sweeping the roadway, spraying hot rubberized liquid onto the surface, and then immediately spreading a layer of 3/8" stone chips. The stone chips are compressed into the hot rubber by rollers, creating a new wearing surface. Following application, the road is mechanically swept again. Within one week after the application, DPW staff will sweep the chip sealed roads. The Highway Superintendent will evaluate the road condition and sweep as needed throughout the fall.

During winter snow-clearing operations, plows can dislodge and fracture some of the stone chips, pushing them into the grass berms and sidewalks. To address this, DPW staff use rakes, power brooms, and blowers to remove the stone chips from these areas in March / April. The roads are mechanically swept during this process to remove the debris.

5.0 REFERENCES

Downtown and Height's Business District Sweeping Plan

Peer Reviewer:  Date: March 13, 2023 Erik T. Lannigan	Author:  Date: October 17, 2022 Kimberly Donovan
Approved By:  Rhainhardt F. Hoyland January 13, 2023	