

**TOWN OF DEDHAM  
STREET OPENING REGULATIONS  
2014**



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<b>1.0</b>	<b>INTENT AND PURPOSE</b> .....	<b>3</b>
<b>2.0</b>	<b>ADMINISTRATION</b> .....	<b>3</b>
<b>3.0</b>	<b>DEFINITIONS</b> .....	<b>3</b>
4.0	Street Opening Permits.....	6
4.1	Permit Required.....	6
4.2	Permit Application.....	6
4.3	Insurance.....	7
4.4	Performance Bond .....	7
4.6	Fines .....	8
<b>5.0</b>	<b>TERMS OF THE STREET OPENING PERMIT</b> .....	<b>10</b>
5.1	Inspections.....	10
5.2	Working Hours .....	10
5.3	Dig-Safe and Dedham-Westwood Water District .....	10
5.4	Existing Utilities.....	11
5.5	Protection of Existing Lines and Structures .....	11
5.6	Adjoining Property .....	11
5.7	Damaged Trees.....	11
5.8	Pedestrian Crossings, Open Trenches .....	11
5.9	Traffic .....	12
5.10	Gutters and Basins.....	12
5.11	Excavated Material.....	12
5.12	Temporary Repairs .....	12
5.13	Noise.....	12
5.14	Debris and Litter.....	13
5.15	Restoration of Pavement Markings .....	13
5.16	Lawn Surfaces and Plantings.....	13
5.17	Erosion Control .....	13
<b>6.0</b>	<b>REQUIRED CONSTRUCTION PROCEDURES</b> .....	<b>13</b>
6.2	Backfilling and Compaction.....	14
6.3	Temporary Patches .....	16
6.4	Permanent Patches.....	17
6.5	Newly Paved Roads.....	18
6.6	Shoulders .....	18
6.7	Sidewalks.....	18
6.8	Curb and Berm .....	18
6.9	Wheelchair Ramps.....	18
<b>8.0</b>	<b>VALIDITY</b> .....	<b>19</b>

## **1.0 Intent and Purpose**

The purpose of this is the regulation of the use of public Right of Ways in the interest of public safety and convenience, and the operation and protection of public works infrastructure. Excavation and restoration standards are required to preserve the integrity, operational safety, and function of the public Right of Way.

These regulations have been studied, analyzed and formulated to extend the service life of our roadways, diminish the need for expensive resurfacing, substantially reduce potholes caused by improper utility patching techniques and relieving our Public Works crews from responding to deficiencies created by others and allowing them to focus on more pertinent problems.

## **2.0 Administration**

The Director of Public Works is the principle Town official responsible for the administration of the Right of Ways, Street Opening Permits, and the Regulations for Street Openings. The Director may delegate any or all of the duties hereunder.

## **3.0 Definitions**

The following words and phrases, when used in these Regulations, shall have the meanings respectively ascribed to them:

**AAB Regulations** – shall mean The Rules and Regulations for the Architectural Access Board, Mass Executive Office of Public Safety (521 CMR), as amended.

**ADA** – shall mean The Americans with Disabilities Act of 1990, as amended (42 USC 12101-12213), and the Accessibility Guidelines for Buildings and Facilities (Appendix to Part 1191) of the U.S. Architectural and Transportation Barriers Compliance Board, as amended.

**Applicant** – shall mean any Public Utility, municipal department, person or entity who owns or exercises general responsibility and control over: (i) utility or other pipes, ducts, lines or other things buried in or under a Public Way, or (ii) real property abutting a Public Way, or (iii) real property served by the Public Way or by items of the type specified in (i) above and who wishes to perform Street Opening Work.

**Application Fee** – shall mean a non-refundable processing and inspection fee, which shall accompany each application for a Street Opening Permit.

**ASTM** - shall mean the material standard of the American Society for Testing and Materials.

**Compaction** – shall mean the densification of suitable soil by the removal of air, which requires mechanical energy. Suitable soils used for backfilling excavations shall be compacted to a minimum of 95% of the maximum dry density as determined by the Modified Proctor Test in accordance with ASTM 1557 D.

**Contractor** – shall mean all officers or employees of the Applicant performing Street Opening Work or any person or entity engaged by or on behalf of the Applicant to perform Street Opening Work. The Contractor for purposes of these regulations and for all questions of liability in connection with any Street Opening Work shall be conclusively deemed agents of the Applicant for whom the Applicant is fully responsible.

**Controlled Density Fill (CDF)** – Also known as Flowable Fill. CDF is a mixture of Portland cement, flyash, sand and water. It shall contain a minimum of 250 pounds of class F flyash or high air (25%) and will be self leveling. All CDF used in conjunction with these Regulations shall be able to be excavated by use of hand tools.

**Department of Public Works (DPW)** – shall mean the municipal agency generally responsible for the repair and maintenance of Public Ways within the municipality.

**Dig-Safe** – shall mean the “Underground Protection of Facilities Act”, commonly known as the Dig-Safe law. Any excavation undertaken or authorized by this regulation shall comply with all requirements of M.G.L. Chapter 82, Sections 40 and 40A through 40E. The excavator is solely responsible for contacting Dig-Safe at least 72 hours prior to the start of any excavation, trenching or soil-test boring work. Along with contacting Dig-Safe, the excavator is also solely responsible for contacting the Dedham-Westwood Water District (781) 329-7090 at least 72 hours prior to the start of excavation, trenching or soil-test boring work. The Dedham-Westwood Water District may waive the Dedham-Westwood Water District notification for sites located on unaccepted streets.

**Director** – shall mean the Director of Public Works and/or designee.

**Emergency** – shall mean any event which may threaten public health or safety, including, but not limited to, damaged, plugged or leaking water, gas, sewer, drain, communications or electrical conduit systems or downed overhead pole structures.

**Excavate** - shall mean to dig into or in anyway remove, physically disturb or penetrate any part of a Right of Way.

**Infra-Red Process** – shall mean the restorative procedure whereby an infra-red heater softens existing pavement to a depth of one and one-half (1-1/2) inches, the softened area is treated with a penetrating asphalt emulsion, uniformly scarified and raked to a workable condition, and the treated surface is then compacted by use of a steel-wheeled roller with the purpose of creating a smooth driving surface consistent with adjacent pavement.

**May** - is permissive; shall is mandatory.

**M.G.L.** - shall mean Massachusetts General Law.

**MHD** – shall mean Massachusetts Highway Department.

**Newly Constructed** – shall mean reconstructed or rehabilitated streets shall mean any street that has been newly constructed, reconstructed or rehabilitated within the past five (5) years.

**Permit Holder** – shall mean an applicant to whom a Street opening Permit has been granted.

**Pole Placement** – shall mean an excavation associated solely with a single placement or replacement of a utility pole.

**Public Place** – shall mean any public street, way, place, sidewalk, park, square, plaza, or any other similar public property owned or controlled by the Town and dedicated to public use, and any dedicated-but-unaccepted street or way.

**Public Utility** – shall include a gas and electric company as defined in M.G.L. Chapter 164, Section 1, telephone and telegraph company subject to M.G.L. Chapter 159, Section 12, and cable TV companies or other telecommunication providers regulated by the latest “Standards To Be Employed by Public Utility Operators When Restoring any of the Streets, Lanes and Highways in Municipalities” employed by the Department of Public Utilities (D.P.U.) and Department of Telecommunications and Cable (D.T.C.).

**Rehabilitation** – shall mean that activity of work on any street which provides structural improvements having a minimum service life if fifteen (15) years with minor maintenance, which includes pavement overlay of one and one-half (1-1/2) inches minimum depth, and partial or full depth reconstruction.

**Right of Way** – shall mean the area within the layouts of, on, below, or above a public roadway, highway, street, cartway, bicycle lane and public sidewalk in which the Town has an interest, including other dedicated Right of Ways for travel purposes and utility easements of the Town.

**Shall** - is mandatory; may is permissive.

**Street Opening Permit** – shall mean a permit granted by the Department of Public Works to an Applicant for permission to do Street Opening Work in a Right of Way.

**Street Opening Work** – shall mean any cutting, excavating, compacting, construction, repair or other disturbance in or under a Public Way together with restoration of the Public Way in accordance with these regulations following such disturbance, but excluding the location or relocation of utility poles for which a grant of location has been obtained pursuant to M.G.L. Chapter 166, Section 27.

**Substructure** – shall mean any pipe, conduit, duct, tunnel, manhole, vault, buried cable, or wire, utility system appurtenance, or any other similar structures located below the surface of any public place.

**Utility** – shall mean a public utility, as defined in Massachusetts General Laws as it may be hereinafter amended and shall specifically include the non-regulated activities of such a utility.

#### **4.0 Street Opening Permits**

##### **4.1 Permit Required**

- A. No person or utility shall make any excavation, modify, or fill any excavation excluding previously permitted locations in any public place without first obtaining a Street Opening Permit to do so from the Department of Public Works except as otherwise provided in this Regulation. Any excavation within the Town's streets, sidewalks, or other public Right of Way shall only be permitted in accordance with this Regulation. The granting of such permit shall require all such activities to conform to this Regulation.
  
- B. No driveway, entrance or approach or other improvements within or on the limits of the Right of Way for any public road may be constructed, altered or relocated without first obtaining a Street Opening Permit from the DPW except as otherwise provided in this Regulation.

The DPW shall review any entrance onto a public way for compliance with sound construction and design practices to ensure that traffic safety, drainage and public improvements are not adversely affected.

##### **4.2 Permit Application**

The file Applicant shall be the owner or the utility or, in the case of a service, the property owner being served.

No Street Opening Permit shall be issued unless a written application on a form provided by the Town for issuance of a Street Opening Permit is submitted to the Town. The written application shall contain such information as reasonably required by the DPW and identified in these Regulations. The permit shall expire thirty (30) days from the date of issuance. After the expiration of this thirty day period, such permit shall become null and void unless renewed by the Director. In the event of a permit extension, a new bond, extension or rider of the existing bond shall be provided which extends the previously approved bond to be valid for two (2) years from the extended date of the permit.

New Applicants shall provide at least three (3) references of similar work performed in the past three (3) years for at least two (2) other municipalities.

In order to obtain a permit, the applicant must be current on all of its financial obligations to the Town. In addition, a permit may be withheld or denied if the applicant, owner or contractor are currently in violation of any other town permits.

A non-refundable application/inspection fee is required with each Street Opening Permit and is due at the time of application submittal. The application/inspection fee reflects the time, supplies and work associated with the administrative processing and field inspections. The application fee shall be \$50 and the inspection fee shall be \$100, making the total application/inspection fee due at the time the application is submitted to be \$150.

D.P.U. and D.T.C. Regulated public utilities are exempt from payment of all fees **except** the Application Fee per D.T.E. 98-22, "Standards To Be Employed by Public Utility Operators When Restoring any of the Streets, Lanes and Highways in Municipalities".

#### **4.3 Insurance**

Before a Street Opening Permit is issued, the Applicant shall file with the DPW an insurance certificate, acceptable to said DPW, containing the following:

- A. Worker's Compensation Insurance for the protection of all employees in accordance with applicable state law.
- B. Contractor's Liability with limits of \$1,000,000.00. The Town shall be named as "Additional Insured".
- C. Automotive liability on and off public highways, owned vehicles, hired vehicles, and non-ownership liability with a limit of \$1,000,000.00.

Liability insurance shall cover property damage insurance, blasting and explosion, underground damage to utilities, and collapse, and be issued by an insurance agency licensed to do business in Massachusetts.

#### **4.4 Performance Bond**

A performance bond in the sum of \$5,000 is required for each Street Opening Permit granted that requires an excavation less than 200 square feet. For excavations that exceed 200 square feet, the performance bond shall be increased incrementally by \$25 per each additional square foot of excavation. All bonds shall be in full effect for a period of two (2) years from the date of application.

#### **4.5 Notice of Violation**

The Town will issue a “Notice of Violation” whenever it determines that:

1. A contractor is performing work without a valid permit.
2. A contractor is in non-compliance with the Rules and Regulations set forth by the Department of Public Safety.
3. Construction is proceeding in a manner that jeopardizes public safety.
4. Construction is occurring in violation of these Regulations and/or any other applicable approved specification or details.
5. Street Opening Work is proceeding without a valid permit.
6. There is damage to the surrounding roadway, public property, and/or utilities resulting from the work.
7. There are debris and/or soils in the roadway resulting from the work.
8. Work is not completed, including necessary testing and or documentation.

Any person found to be violating any provision of these Regulations shall be served by the Town with written notice stating the nature of the violation and provided with a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease and correct all violations.

The Board of Selectmen have designated the Director to enforce these regulations.

#### **4.6 Fines**

The Director may impose a **\$250.00** fine per day against any Applicant or Contractor who violates the requirements contained herein until the violation is rectified and accepted by the Director. The Applicant may appeal the fine to the Board of Selectman. The appeal must be made in writing within 10 business days of issuance.

Any person violating any of the provisions of these Regulations shall become liable to the Town for any expense, loss or damage incurred by the Town by reason of such violations.

#### **4.7 Excavations During Winter**

No person or utility shall be granted a Street Opening Permit or open any street or sidewalk from the time of November 15<sup>th</sup> of each year to April 1<sup>st</sup> of the following year unless the Director determines that weather conditions are likely to be favorable, or unless an emergency or special condition exists and permission is obtained in writing from the Town.



In the event of favorable weather conditions, the Director may allow Street Opening Work to be performed on a case-by-case basis. Any person wishing to obtain a Street Opening Permit between these aforementioned dates shall first explain fully in writing the emergency situation or special condition existing to the Town before a permit may be granted. If an emergency situation which could endanger life or property exists, excavation work shall not be delayed by this section; however, a written explanation shall be delivered to the Town as soon as possible and a Street Opening Permit obtained for the opening made. In the event that a permit is issued between the aforementioned dates for an excavation that is not due to an emergency condition, the Town reserves the right to impose additional conditions as necessary to protect safety and preserve the integrity, operational safety and function of the Public Right of Way.

#### **4.8 Emergency Action**

Nothing in this Regulation shall be construed to prevent the making of such excavations as may be necessary for the preservation of life or property or for the location of trouble in conduit or pipe which may be a threat to life or property, or for making emergency repairs, provided that the person making such excavation shall apply to the Town for such a permit on the first working day after such work is commenced. Before any excavation work is started, the person or utility excavating must contact all utilities for on the spot locations.

#### **4.9 Warranty of Work**

The Applicant shall for a period of two (2) years thereafter, be fully liable for all defects in materials and workmanship relating to such replacement or realignment and shall promptly repair or replace the same upon notice of the Director and to the satisfaction thereof.

Pavement repairs guaranteed by each Applicant shall meet all of the following conditions in order to remain in conformance with these Regulations.

- A. **The entire area** shall be free from de-lamination of the approved surface material.
- B. **No distortion of one-half inch or greater** shall exist over more than five percent (5%) of the total surface area of the repair.
- C. **No cracks of one-quarter inch or greater** shall exist in the surface or edges of the repair totaling more than five percent (5%) of the repair perimeter.

Non-conformance with any of the above conditions shall constitute a breach of guarantee and subject the Applicant to remedial actions as required by the Director.

## **5.0 Terms of the Street Opening Permit**

### **5.1 Inspections**

The Applicant or Contractor shall notify the DPW when an inspection is required and coordinate the timing of such inspection. The Applicant or Contractor shall notify the DPW for an inspection at each of the following events:

- A. Prior to the start of trench excavation operations,
- B. Prior to trench backfilling operations,
- C. Following completion of temporary patch placement
- D. Prior to removal of temporary patch for installation of permanent patch
- E. Following final paving preparation (i.e. after saw cutting and grading, but prior to placing asphalt) and
- F. Following completion of permanent patch placement.

The Director may also make additional inspections from the events listed above if deemed necessary to enforce these Regulations. In the event that any dispute exists as to the amount, nature, or scope of the work under this Regulation, the decision and judgment of the Director shall be final and binding unless appealed to or stayed by a court of competent jurisdiction.

### **5.2 Working Hours**

Except in emergency situations, Street Opening Work shall occur during the normal working hours of the DPW. The Applicant or Contractor must give notice of the intended Street Opening Work seventy-two (72) hours in advance to the Director, and, unless the requirement for a police detail is waived by the Police Chief, must arrange for and pay for the police detail to be present throughout the period of time that the Street Opening Work is to be conducted.

### **5.3 Dig-Safe and Dedham-Westwood Water District**

Prior to beginning any Street Opening Work, the Applicant or Contractor shall contact DIGSAFE at telephone number 1-888-DIG-SAFE to have all underground utilities located. The assigned DIGSAFE number shall be listed on the street opening permit application. The Applicant or Contractor shall also notify the Dedham-Westwood Water District (781) 329-7090 at least three (3) business days before construction is to begin so that the Dedham-Westwood Water District can mark the water lines at the site. The Dedham-Westwood Water District may waive the Dedham-Westwood Water District notification for sites located on unaccepted streets. The Applicant or Contractor must request waiver of this notification from the Dedham-Westwood Water District.

#### **5.4 Existing Utilities**

Before starting any excavation, the Applicant or Contractor must confer with all Public Utilities to obtain information from each as to the horizontal and vertical locations of the existing utilities and other conditions that may affect the excavation. The Applicant or Contractor shall not interfere with any existing utility without the written consent of the Director and the owner of the utility. If it becomes necessary to relocate an existing utility, this shall be done by the Applicant or Contractor. The Applicant or Contractor shall inform itself as to the existence and location of all underground utilities to protect the same against damage.

#### **5.5 Protection of Existing Lines and Structures**

The Applicant or Contractor shall adequately support and protect by timbers, sheeting, etc. all pipes, conduits, poles, wires, cables or other appurtenances which may be in any way affected by the excavation work and shall do everything necessary to support, sustain and protect them under, over, along or across such work areas. The excavation shall be performed and conducted in such a manner that it shall not interfere with access to fire stations, fire hydrants, water gates, underground vaults, catch basins or any other public structure.

#### **5.6 Adjoining Property**

The Applicant or Contractor shall at all times and at its own expense, preserve and protect from injury any adjoining property by providing proper foundations and shall take such other precautions as may be necessary for this purpose. The Applicant or Contractor shall not remove, even temporarily, any trees or shrubs which exist in planting strip areas without first obtaining permission from the Director.

#### **5.7 Damaged Trees**

In the event a tree is either accidentally destroyed by the Applicant or Contractor or is authorized for removal by the Director, the Applicant or Contractor shall remove the tree, stump and debris from the work site, and replace the tree with an identical species with a minimum caliper of two (2) inches in the identical location.

#### **5.8 Pedestrian Crossings, Open Trenches**

The Applicant or Contractor shall, where possible, maintain safe crossings for two lanes of vehicle traffic at all public intersections as well as safe crossings for pedestrians at intervals of not more than three hundred (300) feet. If any excavation is made across a Public Way, it shall be made in sections to assure maximum safe crossing for vehicles and pedestrians. An open trench may not exceed three hundred (300) feet unless specifically permitted by the Director. If the Public Way is not wide enough to hold the excavated material for temporary storage, the material shall be immediately removed from the location at the Applicant or Contractor's expense.

## **5.9 Traffic**

The Applicant or Contractor shall take appropriate measures to assure that during the performance of the Street Opening Work, so far as practical, normal traffic conditions shall be maintained at all times so as to cause as little inconvenience as possible to the occupants of the adjoining property and to the general public. The Director may permit the closing of streets and walks to all traffic for a period of time with proper notification of the Police Department and Fire Department. Unless the requirement for a police detail is waived by the Police Chief, the Applicant or Contractor shall engage a police detail to maintain traffic control and public safety at the project site while Street Opening Work is in progress. Warning signs shall be placed a sufficient distance from the project site in order to alert all traffic coming in both directions. Cones or other approved devices shall be placed to channel traffic. Warning signs, lights, and such other precautions shall conform to the "Manual on Uniform Traffic Control Devices for Streets and Highways", 2003 Edition. Construction materials and equipment on the site shall be limited in quantity and in the space they occupy so that they do not improperly hinder and block traffic. The Director may require a traffic management plan be submitted along with the street opening permit in cases of high traffic volume, details or where construction may have significant impacts.

## **5.10 Gutters and Basins**

The Applicant or Contractor shall keep all gutters free and unobstructed for the full depth of the adjacent curb and for at least one (1) foot in width from the face of such curb at the gutter line. Catch basins shall be kept clear and serviceable.

## **5.11 Excavated Material**

The Applicant or Contractor, at their own expense, shall remove all excess excavated material, surplus water, muck, silt or other run-off pumped or removed from excavations from the site.

## **5.12 Temporary Repairs**

At the end of each workday, all trenches must be plated if repair work is not completed and/or backfilled, compacted and temporarily patched. No open un-plated trenches are permitted overnight and work in plated trenches must be continually prosecuted to completion to minimize the time trenches are plated.

## **5.13 Noise**

The Applicant or Contractor shall perform the work in such a manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of neighboring property. During the hours of 7 p.m. to 7 a.m. the Applicant or Contractor shall not use, unless otherwise specifically permitted, in writing, by the Director any tool, appliance or equipment producing noise of sufficient volume to disturb the sleep or repose of occupants of the neighboring property.

**5.14 Debris and Litter**

All debris and litter remaining from the Street Opening Work site shall be removed by the Applicant or Contractor in a timely manner

**5.15 Restoration of Pavement Markings**

All permanent pavement markings (crosswalks, center lines, etc.) which are damaged during Street Opening Work shall be restored in kind by and at the expense of the Applicant or Contractor

**5.16 Lawn Surfaces and Plantings**

All lawn surfaces which are disturbed during Street Opening Work shall be replaced with sod or six (6) inches of screened loam, lime fertilized and re-seeded with good quality lawn seed. Any areas containing plantings shall be restored to their original condition with the same or similar plantings.

**5.17 Erosion Control**

The Applicant or Contractor shall be responsible for all erosion control and for obtaining any necessary permits from the Conservation Commission. The Applicant or Contractor shall protect drainage structures from siltation by whatever means required including but not limited to the installation of hay bales and/or filter fabric. In the event that a drainage structure becomes damaged from siltation as a result of the Street Opening Work, the Applicant or Contractor shall clean the structure at their own expense before completing the temporary patch.

**6.0 Required Construction Procedures**

All Street Opening Work and materials used therein **must** conform to the most recently published edition of the Town of Dedham, Department of Public Works, "Design and Construction Standards". Construction methods and material requirements that are not found in the DPW's "Design and Construction Standards", shall be in accordance with Massachusetts Highway Department (MHD) 1988 Standard Specifications and all current supplemental specifications, federal OSHA requirements, the American Disability Act and the Architectural Access Board Regulations. Exceptions to these requirements may be made at the discretion of the Director at the time the Street Opening Work is in progress.

## **6.1 Excavation**

Existing pavement shall be saw cut in neat, true lines along the area requiring excavation for repair, replacement or new installations. When opening occurs within two (2) feet of the curb and/or edge of the hardened surface, the paved area between the excavation and the curb and/or edge must also be removed. The hardened pavement shall be saw cut back a minimum of twelve (12) inches from all sides of the initial excavation to the depth of the original pavement structure, exposing the undisturbed gravel sub-base. Unstable pavement shall be removed over cave-outs and breaks and the subgrade treated as the main trench. Pavement edges shall be trimmed to a vertical face and neatly aligned with the center line of the trench. Excavations shall be made in open cut. Trenches and excavations shall be braced and sheathed in accordance with the requirements of the Occupational Safety and Health Act (OSHA). Sections of bituminous or cement concrete sidewalks shall be removed to the nearest scoreline or approved cut edge. The contractor is solely responsible for the health and safety of all employees, subcontractors, motorists, pedestrians and the general public with regard to excavation and trench work.

## **6.2 Backfilling and Compaction**

For Street Opening Work that requires the removal of less than 100 square feet of asphalt cement, the Applicant or Contractor shall use Controlled Density Fill (CDF) for excavation backfill. However, for Street Opening Work that requires the removal of 100 square feet or greater of asphalt cement, excavations shall be backfilled with approved granular backfill material or CDF. Regardless of the material to be used for excavation and/or trench backfilling operations, the Applicant or Contractor shall be solely responsible for following the specifications, guidelines and regulations for backfilling and compaction as described in the following subsections.

### **6.2.1 Approved Granular Backfill Material**

Approved backfill material shall consist of either Gravel Borrow meeting Massachusetts Highway Department (MHD) specification M1.03.0, Type "B" or Processed Gravel for Subbase meeting MHD specification M1.03.1.

### **6.2.2 Placement and Compaction of Approved Granular Backfill Material**

Excavations that are to be backfilled with either Gravel Borrow or Processed Gravel for Subbase shall be placed and compacted in maximum 6-inch thick lifts and the Town shall require the Applicant or Contractor to provide third party compaction testing and observation of backfilling procedures by a professionally qualified geotechnical consultant at the Applicant's expense. The compaction testing shall consist of at least one density test per six (6") inch lift placed per 100 square feet of trench. Compaction testing shall be performed using either the Sand Cone Method (ASTM 1556 D) or a Nuclear Density Gauge. Each lift shall be properly compacted using approved vibratory equipment to achieve a minimum compaction percentage of 95% of the maximum dry density of the soil as determined by ASTM 1557 D. If the material retained on the ¾ inch sieve is 35% or greater as determined by grain-size analysis, field density testing may be waived and the lifts of backfill should be compacted to the satisfaction of a geotechnical engineer. Any specific area that, after being compacted, does not pass the required minimum compaction percentage shall be either re-compacted or removed and properly replaced with approved granular backfill material for retesting by the Applicant or Contractor without compensation from the Town. The results of the field density testing shall be submitted to the Director in a timely manner. Pavement subbase, base and surface shall be installed to the minimum depths and prepared as indicated in the DPW's "Design and Construction Standards" when excavations are backfilled with these granular materials.

### **6.2.3 Potential Re-Use of Excavated On-site Soils**

The excavated on-site soils generated during the Street Opening Work may be reused as approved granular backfill material provided the soils meet the MHD specifications for Gravel Borrow or Processed Gravel for Subbase as described above. Excavated material that is proposed for reuse shall have a grain-size analysis test performed by a third party geotechnical laboratory, at the expense of the Applicant, for conformance to MHD specifications. Material that does not meet MHD specifications shall not be reused as approved backfill material and shall be removed from the work site at the expense of the Applicant. Excavated material that is approved for backfill shall be placed, compacted and tested as described above.

#### **6.2.4 Controlled Density Fill (CDF)**

If Controlled Density Fill (CDF) is to be used for Street Opening Work where the removal of 100 square feet or greater of asphalt cement is required, field density testing by a third party as described above shall be waived. CDF shall contain a minimum of 250 pounds of class F flyash or high air (25% plus), be self-leveling and quick setting. CDF shall meet MHD specification M4.08.0 and shall fall into the category of either Type 1E or 2E (very flowable). CDF is to be batched at a ready mix plant and is to be used at a high or very high slump (9" to 12"). In lieu of the slump test, a 6 inch long, 3 inch diameter tube may be filled to the top and then slowly raised. The diameter of the resulting "pancake" may be measured and the range of the diameter shall be 9 inches to 14 inches. It shall be flowable, require no vibration and after it is placed, excavatable by hand tools and/or small machines.

If CDF is used as approved backfill material, it shall fill the excavation to immediately below the asphalt grade or to the minimum required by the DPW's "Design and Construction Standards", whichever is greater. If an excavation is backfilled with CDF in accordance with this Regulation, then a temporary patch need not be installed, but a permanent patch may be installed immediately. Permanent patches shall be installed as indicated in the DPW's "Design and Construction Standards". If, the CDF used for backfill is not quick setting, then the Applicant or Contractor shall cover the excavation with heavy duty steel plates adequate to carry heavy traffic and wait twenty-four hours for the CDF to cure prior to applying the permanent patch.

Regardless of the type of Street Opening Work being or to be performed, the Director has the right to alter the Regulations stated within this section to meet the needs of the Town.

#### **6.3 Temporary Patches**

The Applicant or Contractor shall install a temporary patch when excavations have been backfilled with Gravel Borrow or Processed Gravel for Subbase. The temporary patch shall remain in place for a minimum of 14 days and shall not exceed a maximum of 30 days starting at the time the temporary patch was installed. Temporary patch shall consist of either cold patch or bituminous concrete plant-mixed hot asphalt aggregate shall be installed to the thickness of the existing asphalt at a minimum.

Temporary patches shall not be allowed after November 1<sup>st</sup> of each year. Excavations generated during Street Opening Work after this date shall be backfilled using quick setting Controlled Density Fill (CDF) described in section 6.0.2. The Applicant or Contractor shall construct the permanent patch as indicated in the DPW's "Design and Construction Standards" the same day the quick setting CDF is utilized.

Temporary patches shall be maintained by the Applicant or Contractor so that the surrounding area remains a single smooth unbroken plane.



#### **6.4 Permanent Patches**

Except when installed over Controlled Density Fill (CDF) as described in section 6.0.2, permanent patches shall be installed not less than fourteen (14) days from the date of installation of the temporary patch. The Applicant or Contractor shall contact the Director 14 days following the installation of the temporary patch for an inspection to determine if final settlement of the trench has occurred. The Director will notify the Applicant or Contractor within seven (7) days of the inspection whether permanent patch can be installed.

Any temporary patch installed shall be completely removed and replaced with hot mix asphalt base, binder and top courses as described and shown in the DPW's "Design and Construction Standards". If additional saw cutting is required, it shall be done in neat straight lines. Any broken or irregular edges of existing pavement shall be saw cut away in straight lines leaving a sound vertical face at least twelve (12) inches back from all edges of the existing pavement. All abutting edges of the existing pavement shall be painted with an asphalt emulsion immediately prior to the placement of the permanent patch. The Applicant or Contractor shall remove and dispose, at their own expense, all excavated material and thoroughly compact the surface of the subbase.

The Applicant or Contractor shall be required to utilize the infra-red process to any permanent patches installed within newly paved roads. The area to be repaired using the infra-red process shall be thoroughly cleaned to eliminate all potential contaminants. An infra-red heater shall be positioned over the area to be repaired for a period of time required to plasticize the existing pavement to a depth of one and one half inches. Oxidation of the pavement caused by improper heating techniques must be avoided. If this condition occurs, all oxidized material must be removed and replaced with Class 1 bituminous concrete meeting MHD specifications. The soften area shall be inwardly reworked from approximately one foot beyond all sides of the original temporary patch. The designated area shall be treated with a penetrating asphalt emulsion, uniformly scarified and raked to a workable condition. Under no circumstances may the infra-red heat treatable patching mix that is used register a temperature under 200 degrees Fahrenheit. After the paving mixture has been properly admixed and raked to grade, compacting shall be obtained by use of a steel-wheeled roller of sufficient weight to establish a uniform density comparable to that of the surrounding pavement surface within the work area. The finished permanent patch shall be level having no depressions retaining water on any of the surface. All seams of the finished perimeter shall be sealed with penetrating asphalt emulsion. A petroleum resin sealant shall be applied consistently to the entire heated area by mechanical means or hand application at an approximate rate between .1 and .25 gallons per square yard. A mineral filler will then be broadcast over the newly sealed area to absorb any excess liquid and prevent tracking and the area immediately opened to traffic.

## **6.5 Newly Paved Roads**

No newly constructed or reconstructed pavement less than five (5) years old will be cut into except in cases of emergency. If a newly constructed or reconstructed roadway requires excavation due to an emergency, the trench shall be filled with quick setting Controlled Density Fill as described in section 6.0.2. After excavation work has been completed as specified in this regulation and the DPW's "Design and Construction Standards", the Applicant or Contractor shall restore the paved area as specified by the Director. The pavement restoration requires cold planing and overlay of the entire frontage, from curb to curb, of the lot where the excavation is performed. For example, if the lot has a frontage of 50-feet, the area to be cold planed and overlay is 50-feet by the entire width of roadway. The joints shall be sealed with emulsion seal and sand cover. There shall be a smooth transition from existing pavement to new pavement.

## **6.6 Shoulders**

Suitable excavated material shall be placed in maximum six (6) inch thick lifts. Each lift shall be properly compacted. Shoulders shall be re-constructed to their existing condition and either loamed with six (6) inches of loam, limed, fertilized and seeded with roadside grass mix or covered with four (4) inches of wood chips as directed by the Director.

## **6.7 Sidewalks**

Any excavation in a concrete or bituminous concrete sidewalk shall require that the entire sidewalk area containing the trench be replaced. Any concrete sidewalk section that is excavated or damaged by the excavation must be replaced in its entirety. Gravel Borrow or Processed Gravel for Subbase meeting MHD specifications mentioned in Section 6.0.2 or suitable excavated material shall be placed in maximum six (6) inch thick lifts and be properly compacted using approved vibratory equipment. All sidewalk areas will be installed by the Applicant or Contractor in conformance with the ADA and the AAB Regulations currently in effect. Bituminous concrete and concrete sidewalks shall also be constructed as described and indicated in the DPW's "Design and Construction Standards".

## **6.8 Curb and Berm**

Any curbing or berm which is damaged or removed as part of the Street opening Work shall be properly replaced in kind. The use of cast-in-place concrete curbing is prohibited. All salvageable granite curb that is removed from the Public Way and is excess is the property of the Town and shall be delivered to the DPW by the Applicant or Contractor.

## **6.9 Wheelchair Ramps**

Existing wheelchair ramps which are damaged or removed under Street opening Work shall be reconstructed in kind and in conformance with the ADA and the AAB Regulations that are currently in effect.

## **6.10 Curb Cuts**

Any curb cut within a Public Way cannot exceed the following dimensions unless specifically approved by the Director:

- 1.) Single Family Dwelling – 16 feet
- 2.) Multi-Family Dwelling – 18 feet
- 3.) Two Family Dwelling – 18 feet
- 4.) Commercial Property – 24 feet

Driveway entrances into Public Ways must butt into and not overlap the edge of the existing roadway hardened surface. The driveway must be graded in such a manner that no ponding of water occurs within the Public Way and in accordance with the AAB Regulations. Driveways shall not be located on small radius curves and shall be positioned as to provide maximum sight distance and safety.

## **7.0 Obstructions Located In The Public Right Of Way**

A Street Opening Permit with associated insurance and bonds must be obtained for any proposed temporary obstruction that is to be located or placed within a Public Right of Way. An obstruction shall be considered, but not limited to, dumpsters, unregistered vehicles (such as construction machines and equipment), construction materials, or other such object or objects which are not specifically permitted under state or local regulations and may pose a potential hazard to the general public.

Warning signs shall be placed a sufficient distance from the permitted obstruction(s) in order to alert all traffic coming in both directions. Cones or other approved devices shall be placed to channel traffic. Warning signs, lights, and such other precautions shall conform to the “Manual on Uniform Traffic Control Devices for Streets and Highways”, 2003 Edition. Construction materials and equipment on the site shall be limited in quantity and in the space they occupy so that they do not improperly hinder and block traffic. The Director may require a traffic management plan be submitted along with the street opening permit in cases of high traffic areas or other situations deemed necessary.

## **8.0 Validity**

All regulations or parts of regulations in conflict herewith are hereby repealed.

The invalidity of any section, clause, sentence or provision of these regulations shall not affect the validity of any other part of these Regulations, which can be given effect without such invalid part or parts.