

11.4 Permanent Patches – Except when installed over Controlled

11.4 Permanent Patches – Except when installed over Controlled Density Fill as described in paragraph 2 above, Permanent Patches shall be installed not less than twelve nor more than eighteen months from the date of installation of the Temporary Patch. Upon request by the Permit Holder or Contractor, the Awarding Authority Representative will inspect the Temporary Patch and determine if final settlement of the trench has occurred. The Awarding Authority Representative will notify the Permit Holder or Contractor within seven days of the inspection whether the Permanent Patch can be installed. Public Utilities or municipal departments may schedule Permanent Patches to replace all Temporary Patches then within the Permanent Patch Window without receiving prior approval from the Awarding Authority but must give the Awarding Authority and its Representative not less than seventy-two hours prior notice.

A Permanent Patch shall consist of one of the following: (a) cold planing the Temporary Patch to a depth of one and one-half inches and then installing a minimum of one and one-half inches of top course of bituminous concrete, or (b) the excavation of the Temporary Patch in a bituminous concrete Public Way and replacement of this material with any additional processed gravel needed and two and one half inches of base course and one and one-half inches of top course of bituminous concrete (See Diagrams 1 and 2) or (c) application of the Infra-Red Process to the Temporary Patch, or (d) the certification by the Awarding Authority Representative made during the Permanent Patch Window that the Temporary Patch in their reasonable judgment meets fully the standard of a Permanent Patch and thus requires no further work.

(a) Cold Planing – If the cold planing method is used, the area to be cold planed must extend at least twelve (12) inches beyond all sides of the existing Temporary Patch. (See Diagram 2) This area must be cold planed to a depth of one and one-half inches. Any broken or irregular edges of existing pavement shall be cut away in straight lines leaving a sound vertical face at least twelve (12) inches back from all edges of the existing pavement. The Permit Holder must provide a dust control system capable of complying with environmental air quality standards during cold planing and sweep the Public Way following completion of the cold planing work. All abutting edges of the existing pavement will be painted with an asphalt emulsion immediately prior to the placement of the Permanent Patch. The Permanent Patch will consist of the application of a top course of a minimum of one and one-half inches of bituminous concrete plant-mixed hot asphalt aggregate. After raking and rolling, the grade of the Permanent Patch shall match the existing bituminous surface of adjacent pavement. 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.

(b) Excavation - Any Temporary Patch that has been patched with Cold patch must be excavated and replaced with a bituminous concrete base in accordance with this paragraph. If the excavation method is chosen and if additional cutting of the existing pavement is required, it shall be done in neat straight lines. Any broken or irregular edges of existing pavement shall be cut away in straight lines leaving a sound vertical face at least twelve (12) inches back from all edges of the existing pavement. (See Diagram 1 and 3). All abutting edges of the existing pavement shall be painted with an asphalt emulsion immediately prior to the placement of the Permanent Patch. The Permit Holder or Contractor shall remove and dispose of all excavated material and thoroughly compact the surface of the sub-base.

Following excavation the Permanent Patch shall consist of a bituminous concrete base and top laid and rolled in two (2) courses. The binder (base course) shall be a minimum of two and one half (2½) inches in depth and the top course shall be one and one half (1½) inches in depth.

The minimum total thickness of both courses, measured after rolling, shall be four (4) inches or equal to the material that was previously excavated. If after compaction, more than four inches of Permanent Patch is needed in order to restore the excavated area to finish grade, additional bituminous concrete shall be used in the base course. The base course shall be placed and carefully raked and thoroughly rolled to the required thickness. The top course shall be placed to a grade that will match the existing bituminous surface after rolling. All seams of the finished perimeter shall be sealed with penetrating asphalt emulsion. The finished Permanent Patch shall be level having no depressions retaining water on any of the surface.

(c) Infra-Red Process - If the Infra-Red Process is utilized to install the Permanent Patch, the area to be repaired 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 112 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 I bituminous concrete meeting the Standard Specifications of the Mass. Highway Dept.

The softened area shall be inwardly reworked from approximately one foot beyond all sides of the original Temporary Patch. This designated area shall be treated with a penetrating asphalt emulsion, uniformly scarified and raked to a workable condition. For street crossings and/or trenches with jogs, the reworked area will be extended beyond the outermost jog in a straight line parallel with the opposite outermost jog. Under no circumstances may the infra-red heat treatable patching mix that is used register a temperature under 200 degrees F.

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. Actual rate will be determined on site by an approved absorption test method. 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.

(d) Certification - If a Permit Holder seeks to qualify a Temporary Patch as a Permanent Patch, it must make the application for inspection set out above and specify in it its request for certification. The Awarding Authority Representative will notify the Permit Holder within thirty days of the request whether the Temporary Patch has been certified as a Permanent Patch. If it is not so certified, the Permit Holder shall forthwith cause a Permanent Patch utilizing one of the three remaining methods set out above to be utilized.

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(e) Newly Paved Roads - On Newly Paved Roads, the Awarding Authority Representative may require in addition to the placement of the Permanent Patch, that the Permanent Patch shall be treated by a process (infra-red, microwave or equivalent) that will ensure that the Permanent Patch is integrated into the existing bituminous surface in a seamless manner.

(f) Final Inspection of Permanent Patch - Following completion of the Permanent Patch, the Permit Holder or Contractor shall give notice thereof to the Awarding Authority Representative who shall inspect the Permanent Patch. If the Awarding Authority Representative is satisfied that the road has been restored to as good a condition as

existed prior to the Street Opening Work, he shall so note on the Street Opening Permit and any Refundable Deposit securing that Street Opening Work shall be refunded promptly to Applicant. If the Awarding Authority Representative determines that the Permit Holder is in Default, the Awarding Authority may proceed in accordance with Paragraph XIII, Remedies, of this By- Law.

Independent reference excerpt. Consult the official town PDF for authoritative formatting and subsequent amendments.

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