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| <b>SUPERSEDED BY</b><br><b>EB 15-031</b><br><b>EFFECTIVE 9/28/15</b>                                                                                                                                                                                                                                                                           |  | New York State<br>Department of<br>Transportation<br><b>ENGINEERING<br/>         INSTRUCTION</b>                                                                                                                                                        | <b>EI</b><br><b>14-014</b> |
| <b>Title: STANDARD SPECIFICATIONS –SECTION 619 WORK-ZONE TRAFFIC CONTROL</b>                                                                                                                                                                                                                                                                   |                                                                                    |                                                                                                                                                                                                                                                         |                            |
| <b>Target Audience:</b><br><input type="checkbox"/> Manufacturers (18)<br><input checked="" type="checkbox"/> Local Govt. (31)<br><input checked="" type="checkbox"/> Agencies (32)<br><input type="checkbox"/> Surveyors (33)<br><input checked="" type="checkbox"/> Consultants (34)<br><input checked="" type="checkbox"/> Contractors (39) |                                                                                    | <b>Approved:</b><br><br>James F. Tynan, P.E.<br>Deputy Chief Engineer (Construction)<br><div style="text-align: right;"> <b>7-3-14</b><br/>         Date       </div> |                            |

#### ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for the letting of January 8, 2015.
- This EI supersedes EI 13-013.
- This EI modifies EI 11-016.
- This revision will be incorporated into a future update of the Standard Specifications.

#### PURPOSE:

The purpose of this EI is to issue revisions to Standard Specifications Section 619 *Work Zone Traffic Control*.

#### TECHNICAL INFORMATION:

##### New:

- All temporary stripes must be a minimum of 4 inches (100 mm) in width.

##### Carried forward from Superseded EI 13-013:

- §619-1.05/3.05/5.05 *Covering or Removal of Pavement Markings* - Clarifies that covering or removal of temporary and interim pavement marking are included in this item, and this work is not included in the temporary/interim pavement marking items.
- §619-1.06/3.06. *Temporary Pavement Markings* – Deleted remaining wording which indicates that removal is to be included in the temporary pavement marking items.
- §619-1.07. *Interim Pavement Markings* – Deleted wording which indicates that removal is included in the interim pavement marking items.
- There is no significant cost impact from this EI.

#### IMPLEMENTATION:

- Main Office Design Quality Assurance Bureau will insert the Standard Specification revision into contract proposals beginning with projects submitted for the letting of 1/8/2015.

#### BACKGROUND:

EI 13-013 clarified the payment provisions for removal of temporary and interim pavement markings. The only change contained in this EI is to make the minimum width for temporary pavement markings 4 inches, at FHWA request.

#### TRANSMITTED MATERIALS:

This EI transmits Standard Specification revisions in both USC and Metric formats.

#### CONTACT:

Questions regarding this EI should be directed to:

Peter St. Louis ([Peter.St.Louis@dot.ny.gov](mailto:Peter.St.Louis@dot.ny.gov)) of the Office of Construction at (518) 457-6472

## WORK ZONE TRAFFIC CONTROL

Make the following changes to the Standard Specifications of May 4, 2006, as revised by EI 11-016.

**Delete** §619-1.05 thru §619-1.07 and **Replace** them with the following:

**619-1.05 Covering or Removal of Pavement Markings.** Work shall consist of removing or covering existing permanent pavement markings, interim pavement markings, and temporary pavement markings including, but not limited to: edge lines, lane lines, center lines, crosswalks, stop bars, arrows, symbols, and diagonal markings in gores and medians as shown in the contract documents or as directed by the Engineer.

**619-1.06 Temporary Pavement Markings.** Work shall consist of furnishing and applying temporary pavement markings as shown in the contract documents or as directed by the Engineer. The work for removable pavement tape, removable wet-night reflective tape, temporary overlay markers and removable raised pavement markers shall include removal. Temporary pavement markings are intended for use on any new pavement or milled surface until the subsequent course is placed or interim pavement markings or final pavement markings are installed.

**619-1.07 Interim Pavement Markings.** Work shall consist of furnishing, applying, and maintaining, interim pavement markings as shown in the contract documents or as directed by the Engineer. Interim pavement markings are intended for use in diversions, temporary pavement realignments and crossovers, lane shifts and closures, and other traffic patterns associated with construction activities. Interim pavement markings are intended for use for a given phase or season, for a maximum of 1 year.

**Delete** the first paragraph of §619-3.05 and **Replace** it with the following:

**619-3.05 Covering or Removal of Pavement Markings.** The Contractor shall remove or cover existing permanent pavement markings, interim pavement markings and temporary pavement markings, as indicated in the contract documents or directed by the Engineer, to accommodate traffic pattern changes by covering the markings with preformed removable pavement marking masking tape, or by removing the markings. Masking tape shall be placed in blocks to prevent the underlying shape of pavement marking symbols or letters from being confused with existing markings.

**Delete** the first 5 paragraphs of §619-3.06 and **Replace** them with the following:

**619-3.06 Temporary Pavement Markings.** The Contractor shall install and maintain temporary pavement markings in accordance with the contract documents, using patterns and colors shown in the MUTCD to establish temporary traffic pattern(s) during construction on any pavement, including milled or grooved surface, resurfaced, new pavement, or other paved surface without pavement markings, for a maximum of 14 calendar days. Within 14 calendar days after placement, the Contractor shall either (1) install the succeeding pavement course or (2) install the remaining temporary pavement markings including edge lines, stop bars, and simple crosswalks, with no hatching. Pavements which will be open to traffic shall be properly marked before being opened, before nightfall, or before the end of the work day, whichever is soonest, except areas that are open during the work shift and delineated with channelizing devices or flaggers.

Traffic paint need not be removed before placing a subsequent course. Removable pavement tape, removable wet-night reflective tape, temporary overlay markers and removable raised pavement markers shall be removed before placing a subsequent course at no additional cost to the State.

Temporary pavement marking stripes shall be a minimum of 100 mm in width. Temporary pavement markings shall be applied to a clean, dry pavement in accordance with the manufacturer's recommendations. Hatch lines and symbols will not be required as temporary pavement markings unless required by the contract documents.

Traffic paint pavement markings shall be applied at a minimum wet film thickness of 0.51 mm, immediately followed by an application of glass beads, at a rate of 0.75 kg/Liter of paint.

## WORK ZONE TRAFFIC CONTROL

Where specified, removable raised pavement markers shall be used to supplement line pavement markings. The raised markers shall not be a substitute for line pavement markings, letters or symbols. Removable raised pavement markers spaced every 1.5 m may be used to supplement line pavement markings. Two removable raised pavement markers spaced at each end of the 0.6 m marking may be used to supplement a 0.6 m broken line pavement marking.

If unanticipated weather or other conditions prevent the application of temporary pavement markings, the Contractor shall apply 0.6 m removable pavement tape markings or temporary overlay markers at 12 m spaces at no additional cost to the State, for a maximum of 3 days until such time as temporary pavement markings may be applied, or the next pavement course is installed.

**Delete §619-4.05 and Replace it with the following:**

**619-4.05 Covering or Removal of Pavement Markings.** The quantity to be measured for payment will be in meters to the nearest whole meter along the centerline of the pavement stripes covered or removed. No measurement will be made for the gaps between broken and dotted line segments. If preformed tape is used to cover an existing line, payment will be based on the width of the line covered. Measurement for covering or removal of striping with a width greater than 100 mm will be made by the following method:

$$\frac{\text{Width of Striping (mm)} \times \text{Number of meters}}{100 \text{ (mm)}}$$

Letters and symbols will be measured by each unit covered or removed. A unit will consist of one letter or one symbol except that a double-headed arrow will be measured as two units and triple headed arrow will be measured as three units. Example: "SCHOOL" would be measured as six units. Each R in a railroad crossing marking will be measured as a single unit, but the "X" will be measured by the number of meters of 100 mm stripe.

**Delete §619-5.05 and Replace it with the following:**

**619-5.05 Covering or Removal of Pavement Markings.** The unit price bid for the covering or removal of pavement markings shall include the cost of all labor, materials and equipment necessary to complete the work, including the costs of any repairs or replacement of damaged pavement or existing pavement markings resulting from pavement marking removal operations.

**Delete** contract pay items:

|          |                                                     |       |
|----------|-----------------------------------------------------|-------|
| 619.0801 | Remove Existing Pavement Marking Stripes            | Meter |
| 619.0802 | Remove Existing Pavement Marking Letters or Symbols | Each  |

**Replace** them with the following:

|            |                                            |       |
|------------|--------------------------------------------|-------|
| 619.0801xx | Remove Pavement Marking Stripes            | Meter |
| 619.0802xx | Remove Pavement Marking Letters or Symbols | Each  |

xx = Material

01 = Traffic Paint, 02 = Epoxy Paint, 06 = Permanent Pavement Tape

## WORK ZONE TRAFFIC CONTROL

Make the following changes to the Standard Specifications of May 1, 2008, as revised by EI 11-016.

**Delete** §619-1.05 thru §619-1.07 and **Replace** them with the following:

**619-1.05 Covering or Removal of Pavement Markings.** Work shall consist of removing or covering existing permanent pavement markings, interim pavement markings, and temporary pavement markings including, but not limited to: edge lines, lane lines, center lines, crosswalks, stop bars, arrows, symbols, and diagonal markings in gores and medians as shown in the contract documents or as directed by the Engineer.

**619-1.06 Temporary Pavement Markings.** Work shall consist of furnishing and applying temporary pavement markings as shown in the contract documents or as directed by the Engineer. The work for removable pavement tape, removable wet-night reflective tape, temporary overlay markers and removable raised pavement markers shall include removal. Temporary pavement markings are intended for use on any new pavement or milled surface until the subsequent course is placed or interim pavement markings or final pavement markings are installed.

**619-1.07 Interim Pavement Markings.** Work shall consist of furnishing, applying, and maintaining, interim pavement markings as shown in the contract documents or as directed by the Engineer. Interim pavement markings are intended for use in diversions, temporary pavement realignments and crossovers, lane shifts and closures, and other traffic patterns associated with construction activities. Interim pavement markings are intended for use for a given phase or season, for a maximum of 1 year.

**Delete** the first paragraph of §619-3.05 and **Replace** it with the following:

**619-3.05 Covering or Removal of Pavement Markings.** The Contractor shall remove or cover existing permanent pavement markings, interim pavement markings and temporary pavement markings, as indicated in the contract documents or directed by the Engineer, to accommodate traffic pattern changes by covering the markings with preformed removable pavement marking masking tape, or by removing the markings. Masking tape shall be placed in blocks to prevent the underlying shape of pavement marking symbols or letters from being confused with existing markings.

**Delete** the first 5 paragraphs of §619-3.06 and **Replace** them with the following:

**619-3.06 Temporary Pavement Markings.** The Contractor shall install and maintain temporary pavement markings in accordance with the contract documents, using patterns and colors shown in the MUTCD to establish temporary traffic pattern(s) during construction on any pavement, including milled or grooved surface, resurfaced, new pavement, or other paved surface without pavement markings, for a maximum of 14 calendar days. Within 14 calendar days after placement, the Contractor shall either (1) install the succeeding pavement course or (2) install the remaining temporary pavement markings including edge lines, stop bars, and simple crosswalks, with no hatching. Pavements which will be open to traffic shall be properly marked before being opened, before nightfall, or before the end of the work day, whichever is soonest, except areas that are open during the work shift and delineated with channelizing devices or flaggers.

Traffic paint need not be removed before placing a subsequent course. Removable pavement tape, removable wet-night reflective tape, temporary overlay markers and removable raised pavement markers shall be removed before placing a subsequent course at no additional cost to the State.

Temporary pavement marking stripes shall be a minimum of 4 inches in width. Temporary pavement markings shall be applied to a clean, dry pavement in accordance with the manufacturer's recommendations. Hatch lines and symbols will not be required as temporary pavement markings unless required by the contract documents.

Traffic paint pavement markings shall be applied at a minimum wet film thickness of 20 mil, immediately followed by an application of glass beads, at a rate of 6 lb/gal of paint.

## WORK ZONE TRAFFIC CONTROL

Where specified, removable raised pavement markers shall be used to supplement line pavement markings. The raised markers shall not be a substitute for line pavement markings, letters or symbols. Removable raised pavement markers spaced every 5 feet may be used to supplement line pavement markings. Two removable raised pavement markers spaced at each end of the 2 foot marking may be used to supplement a 2 foot broken line pavement marking.

If unanticipated weather or other conditions prevent the application of temporary pavement markings, the Contractor shall apply 2 foot removable pavement tape markings or temporary overlay markers at 40 foot spaces at no additional cost to the State, for a maximum of 3 days until such time as temporary pavement markings may be applied, or the next pavement course is installed.

**Delete §619-4.05 and Replace it with the following:**

**619-4.05 Covering or Removal of Pavement Markings.** The quantity to be measured for payment will be in feet to the nearest whole foot along the centerline of the pavement stripes covered or removed. No measurement will be made for the gaps between broken and dotted line segments. If preformed tape is used to cover an existing line, payment will be based on the width of the line covered. Measurement for covering or removal of striping with a width greater than 4 inches will be made by the following method:

$$\frac{\text{Width of Striping (in)} \times \text{Number of Feet}}{4 \text{ (in)}}$$

Letters and symbols will be measured by each unit covered or removed. A unit will consist of one letter or one symbol except that a double-headed arrow will be measured as two units and triple headed arrow will be measured as three units. Example: "SCHOOL" would be measured as six units. Each R in a railroad crossing marking will be measured as a single unit, but the "X" will be measured by the number of feet of 4 inch stripe.

**Delete §619-5.05 and Replace it with the following:**

**619-5.05 Covering or Removal of Pavement Markings.** The unit price bid for the covering or removal of pavement markings shall include the cost of all labor, materials and equipment necessary to complete the work, including the costs of any repairs or replacement of damaged pavement or existing pavement markings resulting from pavement marking removal operations.

**Delete** contract pay items:

|          |                                                     |      |
|----------|-----------------------------------------------------|------|
| 619.0801 | Remove Existing Pavement Marking Stripes            | Foot |
| 619.0802 | Remove Existing Pavement Marking Letters or Symbols | Each |

**Replace** them with the following:

|            |                                            |      |
|------------|--------------------------------------------|------|
| 619.0801xx | Remove Pavement Marking Stripes            | Feet |
| 619.0802xx | Remove Pavement Marking Letters or Symbols | Each |

*xx = Material*

*01 = Traffic Paint, 02 = Epoxy Paint, 06 = Permanent Pavement Tape*