

Bracketed section numbers refer to the 2006 *Standard Specifications*.

## Section 84 Traffic Stripes and Pavement Markings

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### 4-8401 General

This work consists of applying painted and thermoplastic traffic stripes and pavement markings. The special provisions may also allow the contractor to substitute traffic striping and pavement marking tape. The bid items, special provisions, and the contract plans will indicate when and where the contractor must use paint or thermoplastic.

### 4-8401 General

### 4-8402 Before Work Begins

Before work begins, the resident engineer should discuss the operation with the maintenance striping superintendent or supervisor. Ask if there are any particular striping or marking concerns or requests that should be addressed. In addition, the resident engineer should take the following preliminary steps:

### 4-8402 Before Work Begins

- Discuss materials to be used with the contractor. If the contractor plans to use solvent-borne or acetone-based paint, ensure its use conforms to the regulations of the local agency for air pollution control.
- Review striping and marking plans, standard details, and any special requirements.
- Review existing field conditions. Consult with district traffic unit personnel if any changes appear to be necessary.
- Verify that Form CEM-3101, "Notice of Materials to Be Used," includes striping tape, paint, thermoplastic material, and glass beads. All materials listed on Form CEM-3101 must be on the authorized materials list for signing and delineation materials. Refer to Section 6-202, "Responsibilities for Acceptance of Manufactured or Fabricated Materials and Products," of this manual for additional information.
- Examine the material as it arrives on the project. Look for identification tags indicating that personnel from the Office of Materials Engineering and Testing Services previously inspected the material.
- Read the manufacturer's instructions for striping tape and thermoplastic materials. When primer is required, determine the type the manufacturer recommends. Also determine the application temperature range for the thermoplastic material.
- Inspect the contractor's equipment for specification compliance either in the contractor's or subcontractor's yard or on another project. Examine the contractor's methods for checking spread rates of paint and glass beads, application temperatures of thermoplastic material, and maximum temperatures of paint.
- Ensure that the contractor's stencils will produce correctly dimensioned pavement markings.

**4-8403**  
**During the Course of**  
**Work**

**4-8403**      **During the Course of Work**

During the work, do the following:

- Check the contractor's layout work. Determine that traffic stripes and pavement markings will be correctly located. Where necessary, assist the contractor to match existing striping cycles.
- Require that thermoplastic material be placed within the specified temperature range. Thermoplastic material heated to excessive temperatures can flash and splatter when exposed to air. Check for accuracy the temperature gages mounted on heating equipment. Ensure employees working around thermoplastic material wear suitable personal safety equipment, long-sleeved shirts, and eye protection.
- Before the contractor applies thermoplastic material, check and document the pavement temperature.
- Before the contractor applies paint, check and document the atmospheric temperature and expected weather conditions. Never allow the contractor to apply paint when rain, fog, or condensation could damage the freshly painted surface.
- Require that paint temperatures not be allowed to exceed the specified maximums for solvent-borne or water-borne paints.
- Before the contractor applies striping or markings, check the condition of the pavement. Require the pavement to be dry and clean as specified.
- Check traffic stripes for the correct width and edge definitions, lengths of gaps and individual stripes, alignment, direction of application, and correct superimposition of second coats.
- Require the contractor to remove drips, overspray, improper markings, and material tracked by traffic.
- Check that the applied thermoplastic material complies with thickness requirements.
- Check application rates for glass beads and paint. Inspect the stripes to ensure that glass beads are spread uniformly and properly embedded.
- Check thermoplastic markings for workmanship as the markings are applied. Do not permit bumps resulting from overlaps in extruded materials. Check complete thermoplastic traffic stripe or thermoplastic pavement marking to ensure it is free of runs, bubbles, craters, drag marks, stretch marks, and debris.
- After application, look for any damage to striping or marking and document any rejections.
- Conduct and document an immediate night inspection to ensure the reflectivity of the installed material. If you encounter any problems, notify the contractor immediately for corrections.

**4-8404**  
**Measurement and**  
**Payment**

**4-8404**      **Measurement and Payment**

Measure the striping and markings according to the units and manner specified in the *Standard Specifications* and the special provisions. Record such measurements in the daily reports and the calculation sheets to support partial and final payments.

The *Standard Specifications* require measurements along the line of the traffic stripe. Such measurement would normally be done with a measuring wheel or a vehicle-mounted electronic measuring device.

The areas of the various standard pavement markings are shown in the *Standard Plans*. You may use these areas in calculations to determine pay quantities. Where the areas are variable, such as for limit lines of variable lengths, you will need to make field measurements.