

SPECIAL SPECIFICATION

1147

Portable Traffic Barrier

1. **Description.** Furnish, install, move, and remove portable traffic barrier.

2. **Materials.**

A. Concrete. Barrier sections will be furnished by the Department, when shown on the plans. Furnish new barrier using materials that meet the pertinent requirements of the following Items:

- Item 420, “Concrete Substructures”
- Item 421, “Hydraulic Cement Concrete”
- Item 424, “Precast Concrete Structural Members (Fabrication)”
- Item 440, “Reinforcement for Concrete”
- Item 442, “Metal for Structures”

Furnish the class of concrete shown on the plans.

B. Steel. Barrier sections will be furnished by the Department or Contractor when shown on the plans. Barrier sections shall meet the crash testing requirements of NCHRP 350 or MASH TL-3 or TL-4 specifications as per test matrix for Longitudinal Barriers.

C. Concrete and Steel. When temporary barrier is to be furnished and retained by the Contractor, products from non-approved sources or previously used product may be provided, if the Contractor submits written certification that the barrier sections and materials substantially conform to the requirements of this Item. The Engineer may approve the use of the product if:

- the barrier sections substantially meet typical cross-section dimension requirements,
- there is no evidence of structural damage such as major spalls or cracks, and
- the general condition of both the barrier sections and their connectors is acceptable.

Department-furnished barrier sections will be at a stockpile location or an existing traffic barrier installation shown on the plans.

3. **Construction.** Notify the Engineer of the casting site and date on which the work will begin for concrete barrier. Multi-Project Fabrication Plants, defined in Item 424 that produce concrete traffic barrier must be qualified according to DMS-7350, “Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Traffic Barrier.” See the Department’s *Material Producer List* for approved fabricators. Construct concrete portable barrier to the dimensions and cross-sections shown on the plans and according to Item 420. Provide forms and cure concrete according to Item 424.

Provide a rough texture to the bottom surface of Single Slope or F Shape concrete barriers and to the top of Low Profile barriers similar to a wood float finish.

Remove formwork after the concrete has reached sufficient strength to prevent physical damage to the member. When the concrete barrier sections have attained sufficient strength to permit handling without causing visible damage, move the barrier sections to a storage area and place them on blocking to prevent damage.

Produce precast concrete barrier to Table 1 tolerances, unless otherwise shown on the plans.

Table 1
Precast Concrete Barrier Tolerances

| Dimension | Tolerance |
|----------------------|----------------------------|
| Length | ±1" |
| Insert Placement | ±1/2" |
| Horizontal Alignment | ±1/8" per 10 ft. of length |
| Deviation of Ends: | |
| Horizontal Skew | ±1/4" |
| Vertical Batter | ±1/8" per foot of depth |

Install barrier sections according to details shown on the plans and manufacturer's recommendations or as directed. Obtain assembly and installation information for the portable steel traffic barrier from manufacturer, and provide the Engineer with an installation and repair manual specific to the portable steel traffic barrier.

After use, stockpile portable barriers and connection hardware that are to be retained by the Department at the location shown on the plans or as otherwise directed.

Repair or replace all traffic barrier or connecting hardware damaged by the Contractor's operations at the Contractor's expense.

4. **Measurement.** This item will be measured by the foot based on the nominal lengths of the barrier sections.
5. **Payment.** The work performed and the materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid at the unit bid price for "Portable Traffic Barrier" of the work category (Furnish and Install, Designated Source, Move, Stockpile, or Remove), (specifying for concrete barrier) shape (e.g., Single Slope, F Shape, or Low Profile) and Type (1, 2, 3, etc.) or steel. This price includes equipment, labor, tools, and incidentals.
 - A. **Furnish and Install.** This price is full compensation for furnishing and installing barrier and connection hardware.
 - B. **Designated Source.** This price is full compensation for delivering and installing Department-furnished barrier and connection hardware from a designated source.
 - C. **Move.** This price is full compensation for moving barrier installations on the project from one location to another (including disassembly and reassembly costs), moving barrier from an installation on the project to a temporary storage area (including disassembly costs), and moving barrier from a temporary storage area to an installation site on the project (including assembly costs).

- D. Stockpile.** This price is full compensation for removing barrier and connection hardware from the project and delivering to the Department stockpile area shown on the plans or as directed.
- E. Remove.** This price is full compensation for removing barrier and connection hardware from the project and retained by the Contractor.