ITEM 512
PORTABLE CONCRETE TRAFFIC BARRIER

512.1. Description. Furnish, install, move, and remove portable precast concrete traffic barrier.

512.2. Materials. 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 421, “Hydraulic Cement Concrete”
- Item 440, “Reinforcing Steel”
- Item 442, “Metal for Structures.”

When temporary barrier is to be furnished and retained by the Contractor, products from nonapproved 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-sectional dimension requirements,
- there is no evidence of structural damage such as major spalling or cracking, and
- the general condition of both the barrier sections and their connectors is acceptable.

Barrier sections to be furnished by the Department will be at a stockpile location or existing concrete traffic barrier installation shown on the plans.

512.3. Construction. Notify the Engineer of the location of the casting site and the date on which the work will begin. Multi-project fabrication plants (as defined in Item 424, “Precast Concrete Structures (Fabrication)”) that produce concrete traffic barrier must be approved in accordance with DMS-7350, “Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Traffic Barrier.” The Construction Division maintains a list of approved multi-project plants. Construct barrier in accordance with Item 420, “Concrete Structures,” to the dimensions and cross-sections shown on the plans. Provide forms and cure concrete in accordance with Item 424, “Precast Concrete Structures (Fabrication).”

Provide a rough texture to the bottom surface of Single Slope, F Shape, or Safety Shape 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 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 barrier to the tolerances given in Table 1 unless otherwise shown on the plans.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>±1”</td>
</tr>
<tr>
<td>Insert Placement</td>
<td>±1/2”</td>
</tr>
<tr>
<td>Horizontal Alignment</td>
<td>±1/8” per 10 ft. of length</td>
</tr>
<tr>
<td>Deviation of Ends:</td>
<td></td>
</tr>
<tr>
<td>Horizontal Skew</td>
<td>±1/4”</td>
</tr>
<tr>
<td>Vertical Batter</td>
<td>±1/8” per foot of depth</td>
</tr>
</tbody>
</table>

Install the barrier sections in accordance with the details shown on the plans or as directed.

Stockpile portable barriers no longer required on the project and to be retained by the Department, not designated for permanent use, at a site shown on the plans or as directed. Haul Department-owned connection hardware after use to the Department warehouse nearest the project unless otherwise shown on the plans or as directed.

Repair or replace all concrete traffic barrier or connecting hardware damaged by the Contractor’s operations at the Contractor’s expense.
Repair or replace any pavement damaged in the process of installing, moving, or removing barrier at the Contractor’s expense.

512.4. Measurement. This Item will be measured by the foot based on the nominal lengths of the barrier sections.

512.5. Payment. The work performed and materials furnished in accordance with this Item and measured as provided under “Measurement” will be paid for at the unit price bid for “Portable Concrete Traffic Barrier” of the work category (Furnish and Install, Designated Source, Move, Stockpile, or Remove), shape (e.g., Safety Shape, Single Slope, F Shape, or Low Profile) and type (1, 2, 3, etc.) of barrier specified. 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.