

Special Specification 7257

Permanent Concrete Traffic Barrier Repair



1. DESCRIPTION

Repair or replace damaged permanent concrete traffic barrier as shown on the plans and as directed.

2. MATERIALS

Provide materials conforming to the pertinent requirements of the following Items except as shown on the plans:

- Item 427, "Surface Finishes for Concrete"
- Item 429, "Concrete Structure Repair" and
- Item 514, "Permanent Concrete Traffic Barrier."

Submit information on pre-packaged repair materials, epoxy anchorage systems, and concrete mix design a minimum of 10 calendar days before beginning work.

3. EQUIPMENT

Provide equipment in accordance with Item 429 "Concrete Structure Repair."

4. WORK METHODS

Obtain approval for all materials and work methods a minimum of 10 calendar days before beginning work.

Repair or replace damaged permanent concrete traffic barrier as shown on the plans. Perform the work in accordance with Item 429 "Concrete Structure Repair," and Item 514 "Permanent Concrete Traffic Barrier," as directed.

Remove and replace full height of permanent concrete traffic barrier if damage exceeds one half of the barrier height, except as shown on the plans and as directed.

Saw-cut perimeter of concrete repair region 1/2 in. deep. Remove concrete to limits shown on the plans and as directed to remove spalled and delaminated areas. Increase repair length to remove the cracked concrete as directed where cracks associated with impact damage remain outside the specified repair area.

Repair permanent concrete traffic barrier supporting structure (i.e., traffic rail foundation, footing, etc.) when damaged in accordance with additional Items of work as shown on the plans and as directed. Include new permanent concrete traffic barrier anchorage reinforcing steel in supporting structure as required.

Drill into undamaged base concrete and add epoxy anchored reinforcing steel to restore severed or damaged permanent concrete traffic barrier anchorage reinforcing steel. Provide epoxy anchorage system rated to obtain yield strength of bar being anchored based on the product literature for the epoxy and steel anchor being used. Use 60 ksi reinforcing steel. Clean and extend existing reinforcing steel and replace any damaged steel or add additional steel as shown on the plans. Restore shape of permanent concrete traffic barrier to match original.

Provide surface finish to match original.

Provide and apply paint in accordance with Item 427 "Surface Finishes for Concrete" to match color of existing barrier if the damaged barrier was previously painted. This work is subsidiary to this Item.

5. MEASUREMENT

This Item will be measured by the foot of permanent concrete traffic barrier repaired or replaced as measured along the face of concrete traffic barrier repaired or replaced.

6. 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 "Permanent Concrete Traffic Barrier Repair," and "Permanent Concrete Traffic Barrier Replacement," of the type identified. This price is full compensation for breaking back and restoring permanent concrete traffic barrier; for furnishing and placing all materials (including painting where applicable); for salvaging and reinstalling existing expansion joints; and for all labor, tools, equipment, and incidentals necessary to complete the work.