

Revision of Section 202 Removal of Expansion Device

Revise Section 202 of the Standard Specifications for this project to include the following:

Description

This work shall consist of removing existing bridge expansion devices per these specifications and conforming to the lines and details shown on the plans or as approved by the Engineer.

This work shall include:

- Saw cutting,
- Removing concrete,
- Removing reinforcing steel as shown in the plans,
- Protecting and straightening existing reinforcing steel to remain,
- Protecting all utilities within the removal area,
- Sandblasting or hand-cleaning reinforcing steel, including epoxy repair,
- Containing and disposing of removed materials and debris.

Construction Requirements

At least 10 working days before beginning removal, the Contractor shall submit a method statement to the Engineer with details of the removal operations, including the means, methods, sequence of removal, tools, and equipment to be used. The Engineer must approve all removal operations, methods, and equipment before the work begins.

Remove the existing concrete as shown on the plans or as directed by the Engineer. The Contractor shall saw cut along the removal limits before removal. Removal operations shall not occur before approval of the Engineer. Unless otherwise specified, the complete concrete sawing to a true line, with a vertical face. Feathered edges will not be acceptable. The depth of the saw cut shall be 3/4-inch minimum.

The Contractor shall take all steps necessary to minimize spalling on the face of the existing concrete adjacent to the removal boundaries. Do not use pneumatic hammers heavier than a nominal 15-pound class for removals adjacent to the removal boundaries. Use hand tools such as hammers and chisels to remove particles of loose, unbonded concrete. Sandblast exposed concrete surfaces within the removal limits to remove all final fractured or loose particles. Any damage caused by the Contractor to any portion of the structure not intended for repair shall be repaired in kind by the Contractor at the Contractor's expense using means and methods approved by the Engineer with no allowance for contract time extension.

The Contractor shall take all steps necessary to prevent cutting or otherwise damaging reinforcing steel intended to remain in place and all utilities within the removal area. Any reinforcing bars or utilities damaged by the Contractor's operation shall be repaired or

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replaced in kind at the Contractor’s expense using means and methods approved by the Engineer with no allowance for contract time extension. Include containment or protection required to keep debris from falling below the work area in the work cost.

After removing the concrete, straighten all exposed non-epoxy reinforcing steel to remain in place as required and thoroughly cleaned to sound metal by sandblasting. Sandblasting equipment shall be capable of removing rust scale from non-epoxy reinforcing bars. If present, do not sandblast epoxy-coated reinforcing steel; clean it with hand tools. If damaged, repaint the epoxy coating on reinforcing steel with epoxy paint before placing the concrete.

The Contractor is responsible for the disposal of all removed material and debris.

Method of Measurement

Removal of Expansion Device will be measured by the actual quantity removed and accepted, from face-of-curb to face-of-curb along the joint.

Basis of Payment

The accepted quantities of Removal of Expansion Device will be paid at the contract unit price.

Payment will be made under:

Pay Item	Pay Unit
Removal of Expansion Device	Linear Foot

Payment for Removal of Expansion Device will be total compensation for all labor, materials, tools, equipment, and incidentals necessary to complete the item, including:

- Saw cutting,
- Removing concrete as shown in the plans,
- Removing reinforcing steel as shown in the plans,
- Sandblasting or hand-cleaning, including epoxy coating repair,
- Removing expansion device,
- Protecting and straightening existing reinforcing steel to remain,
- Protecting all utilities within the removal area, and
- Containing and disposing of removed materials and debris.

Instructions to Designers (delete instructions and symbols from final draft):

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Use this project special provision when removing expansion devices. Do not use for compression sealers that will be replaced in kind.

Include Revision of Section 202 Sandblasting Reinforcing Steel in specification package.

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<u>Date</u>	<u>Author</u>	<u>Description of Change</u>
1/14/19	BPM Cons.	Initial Website Issue
10/13/20	BPM Cons.	Revised to include Utility Protection and containment.
11.1.2021	M. Kayen	Revisions to grammar, format as per CDOT Style Guide (4.22.21)
04.06.2023	M. Kayen	Revisions to make spec online accessibility-compliant. 5.22.23 Additional accessibility work.