

DESIGN DATA

	ABUTMENT 1	PIER X	ABUTMENT XX
◆ Joint opening "A"			
★ Predicted Horizontal Movement			

- ◆ Joint opening "A" for existing structure was determined from the existing plans and must be field verified before ordering or fabricating bridging plate.
- ★ The maximum predicted horizontal joint movement is based on a temperature drop of 60°F for concrete girders and 80°F for steel girders.

BRIDGING PLATE SIZES:

"A"	THICKNESS	WIDTH	MINIMUM LENGTH
0"-1"	1/4"	5"	4'-0"
1"-2"	3/8"	7"	4'-0"
2"-3"	3/8"	9"	4'-0"
3"-4"	1/2"	11"	4'-0"
4"-5"	1/2"	13"	4'-0"
5"-6"	5/8"	15"	4'-0"

Designer: replace the underlined text with the appropriate words and numbers to describe your structure and joint location.

Plug Joint having a maximum horizontal movement exceeding 1/2" may not function as intended.

Any repairs or replacements of the concrete substrate shall be paid for separately under item 601.

NOTES:

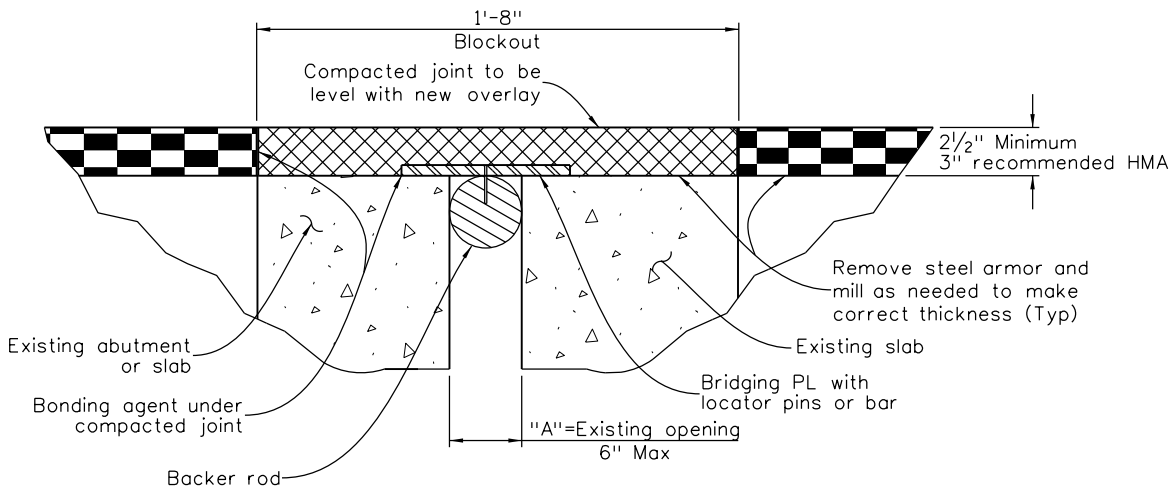
- The plug joint system shall include all labor and materials to install the expansion joint according to the Manufacturer's directions and according to these plans.
- The blockout shall be formed or cut to full depth and ground to provide a uniform bearing surface for the bridging plate.
- Bridging plates shall not rock on their supports prior to placing plug joint material.
- The bridging plates shall be A36 steel as shown on the Table A or equivalent approved by the Engineer. It shall be installed in accordance with the Manufacturer's directions. All bridging plates shall have locator pins or bars for centralizers.
- The backer rod shall be secured and sealed according to the Manufacturer's directions.
- The joint bonding agent shall be the type recommended by the Manufacturer for the joint system being installed. It shall be applied according to the Manufacturer's recommendations.
- All surfaces in joint opening shall be cleaned according to the Manufacturer's directions.
- The joints shall be installed and compacted according to the Manufacturer's procedures. The finished joint, after compacting and sealing, shall be flush with the top of the adjacent wearing surface.
- A representative of the Manufacturer shall be on site prior to and during installation of the plug joints and shall approve the methods and materials before work commences.
- The Asphaltic Binder shall not be overheated, either by absolute temperature limits of the material, or by extended time at a lower high temperature. Overheated material shall be disposed of safely.
- For construction requirements see section 518.08 of Standard Specifications.
- Seal top of curb as directed by the Engineer.
- Sealing the face of the curb or barrier will not be paid for separately, but will be included in the work.
- For information only: it is estimated that xxx CF of compacted joint material is required.
- The Contractor shall be prepared to provide temporary cover plates in case the work must be suspended prior to opening the structure to traffic.

ACCEPTABLE EXPANSION DEVICE ALTERNATES

All Asphaltic Plug Joint materials need a Certified Test Report (CTR) from an independent laboratory showing passing test results on all referenced tests within the most recent ASTM D 6297 using granite blocks for each lot of material to be included on the APL.

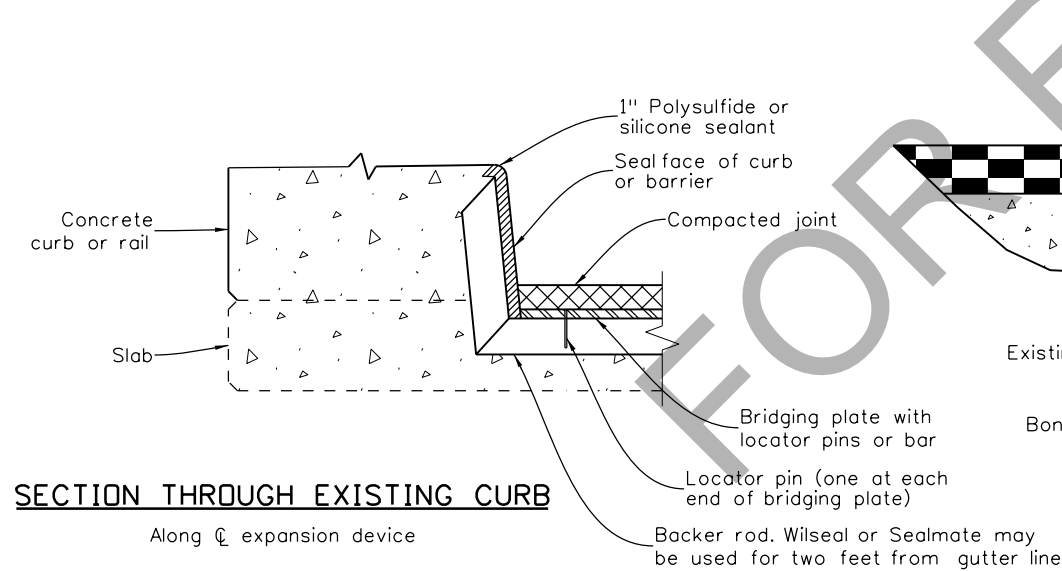
A list of current Pre-Approved Lot numbers, Suppliers, and the Procedure to register new suppliers can be found on CDOT Approved Products List Web site at:

<https://apl.codot.gov/>



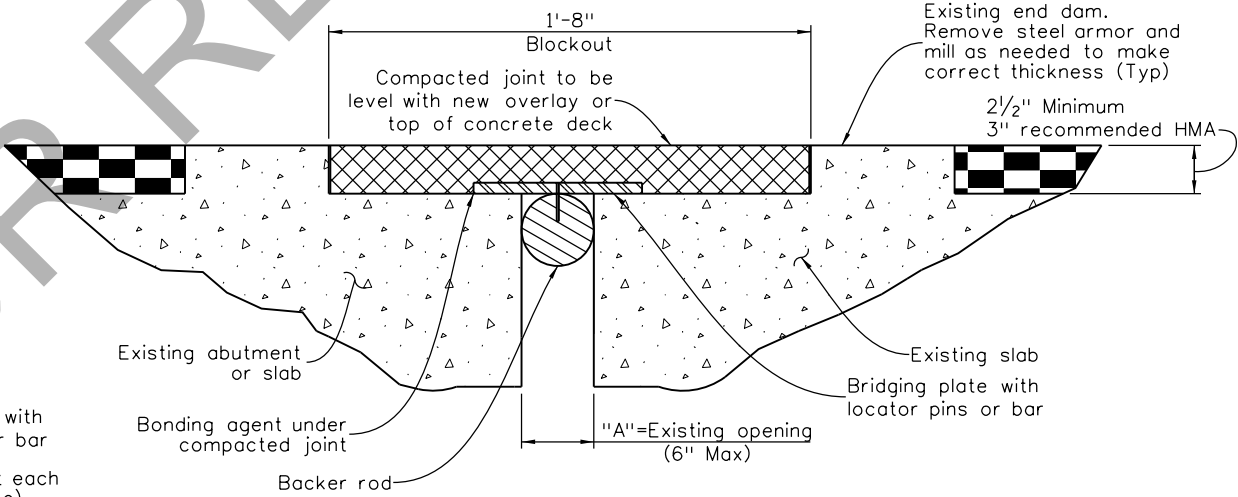
JOINT REHABILITATION DETAIL WITHOUT EXISTING END DAMS

Typical detail shown



SECTION THROUGH EXISTING CURB

Along centerline expansion device



JOINT REHABILITATION DETAIL WITH EXISTING END DAMS

Typical detail shown

Revision Dates
11/07
5/13
3/23
9/24

INITIALS	DESIGN	DATE	DETAIL	DATE	QUANTITY	DATE
By						
Checked By						

All seals for this set of drawings are applied to the cover page(s)

Print Date: \$DATE\$
File Name: Sheet_B-518-PR.dgn
Horiz. Scale: None Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



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Staff Bridge Branch

Initials

As Constructed

No Revisions:

Revised:

Void:

BRIDGE EXPANSION DEVICE  
(PLUG JOINT)

Designer: XXXXXXXX	Structure Numbers	X-XX-XX
Detailer: XXXXXXXX		X-XX-XX
Sheet Subset: BRIDGE	Subset Sheets: BXX of XXX	

Project No./Code

Project Number

Code

Sheet Number