

MEMORANDUM

DEPARTMENT OF TRANSPORTATION
Staff Bridge Branch
4201 E. Arkansas Avenue, Room 330
Denver, Colorado 80222
(303) 757-9309 FAX (303) 757-9197



Date: May 18, 2001
To: All Bridge Worksheet Users
From: M. A. Leonard, Bridge Branch Manager
Subject: CDOT Bridge Worksheet Revisions

The CDOT Bridge Worksheets have recently been updated. This update involves 23 English unit worksheets.

The following is a summary of the revisions.

B-INDEX-1 & 2: Updated indexes.

B-206-F1 & F2: Removed informational quantities table. Modified notes to include all items in pay item 206 Structure Backfill (Flowfill). Highlighted pay limits in section view. Renamed "Underdrain Detail" to "6 Inch Perforated Pipe Underdrain" and added note to fully describe what is included as per the specification.

B-206-M1 & M2: Removed informational quantities table. Modified notes to include all items in pay item 206 Structure Backfill (Class 1) and item 206 Mechanical Reinforcement of Soil. Highlighted pay limits in section view. Renamed "Underdrain Detail" to "6 Inch Perforated Pipe Underdrain" and added note to fully describe what is included as per the specification.

B-518-1, 1A & 1B: Replaced previous version of the 0-4 inch expansion device to eliminate the armor-angles. It was not possible to consistently place and vibrate concrete underneath the angles and contractors routinely did not epoxy inject the angles as called for in the project special provisions. Accordingly, poorly consolidated areas along the expansion joints lead to joint failures when the angles worked loose. Additionally, the armored joints were very stiff and it was not always possible to make them conform to the planned grade during the concrete pour.

This joint design uses the rail (extruded or machined) as the armor to protect the surrounding concrete. The rails are tied to the supporting concrete with ½" x 2" x 1'-0" L-shaped bars placed at 6" on center. A support bracket detail is provided to properly position the rails along the joint during the concrete pour. The rail alone is more flexible than the armored version which allows the joint to conform to the roadway grade as called for on the plans. Sheets 4A and 4B provide cover plate details for installations with conventional curbs and safety shapes respectively.

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B-518-1R: Modified Acceptable Alternates list. Added table for approximate dimensions of dimension "A". Added note for minimum of dimension "A". Further explained what steps 1 through 4 entail. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-3 & 3W: Modified overlay thickness note to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Corrected tube splice detail. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-7T, 7A & 7B: Modified overlay thickness note to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-8A: Corrected callout for post in elevation. Corrected dimension from front of post to back of tube on side view. Corrected note for 'A' dimension at expansion joint. Modified overlay thickness note to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-10: Modified tube callout for plan – tube splice detail. Modified overlay thickness note to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-10A: Modified overlay thickness notes to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Removed all references to "SPECL13.shx" and converted drawing to Release 2000

B-606-10B: Corrected minor spelling error in notes. Corrected dimension from end of curb to beginning of thrie beam connector plate. Modified overlay thickness notes to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-10H: Modified section view to show fill. Modified overlay thickness notes to reflect 3" asphalt overlay (without fill), 2" silica fume overlay (without fill) or roadway pavement. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-606-10R: Corrected tube splice detail. Modified overlay thickness notes to reflect 3" asphalt overlay, 2" silica fume overlay or bare deck. Removed all references to "SPECL13.shx" and converted drawing to Release 2000 format.

B-614-1: New Worksheet. Deicing Mechanical & Electrical Vault – Provides details to house computer control hardware and a high pressure pump to dispense Magnesium Chloride on bridge decks. The pump is gravity fed by an adjacent buried tank. The cost for the vault and buried tank is included in bid item 614, Deicing System, as described in a Project Special Provision.

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B-618-DF: Modified notes to clarify when diaphragms are necessary. Removed all references to “SPECL13.shx” and converted drawing to Release 2000 format.

These updates and all of the worksheets are available through the CDOT bridge web page.

http://www.dot.state.co.us/DevelopProjects/DesignSupport/Bridge/Worksheets/Worksheets_US.htm

Please review and become familiar with these revisions. If you have any questions or recommendations for improvements to the worksheets please contact:

mark.leonard@dot.state.co.us (303) 757-9309

Prabhatsinh.Padhiar@dot.state.co.us (303) 757-9370

MAL/PKP/RLO/rlo

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