



MEMORANDUM

TO: District Engineers **DATE:** December 31, 2003

FROM: Mary Lou Ralls, P.E.

SUBJECT: Culvert and Drainage Standard Drawings (English)

The culvert and drainage standard drawings have been reissued with an issue date of December 2003. These standard drawings are posted on the TxDOT web site and are available for immediate use. This set of standard drawings completely replaces the previous set with an issue date of September 2000 and last revision date of March 2002.

These standard drawings will be applicable to all new construction projects beginning with the June 2004 letting. Use of these standard drawings prior to this date is at the district's option.

Key features of these standard drawings include:

- New standard drawings are provided for Safety End Treatments for Arch Pipe Culverts with Flared Wings. A standard drawing (3 sheets) is provided to accommodate each of the following skews: 0-, 15-, and 30-degrees.
- The term "direct traffic" has been removed from box culvert standard drawings and the General Notes for box culverts have been revised to clarify when Class "S" concrete is required for culvert top slabs.
- The term "shall not be used for direct traffic" has been removed from title blocks and replaced with minimum fill heights.
- The Precast Box Culvert Miscellaneous Details (SCP-MD) standard drawing has been revised to address payment for cement stabilized backfill required between adjacent boxes.
- The Extended Curb Details (ECD) standard drawing has been revised to provide details consistent with the T6-CM standard drawing.
- The Box Culvert Supplement (BCS) drawing has been revised to allow the use of either precast or cast-in-place (CIP) box culverts regardless of the type culvert assumed by the engineer in completing this drawing. This drawing now requires

contractors to make any necessary adjustments if they elect to use a different type culvert than what is shown. **If there is reason to restrict the contractor to a specific type of culvert (precast or CIP), the engineer who signs, seals, and dates the BCS drawing should note this restriction on the plans.** Requirements for signing, sealing, and dating this drawing have been clarified.

- Standard drawings for precast safety end treatments have been revised to address issues related to safety end treatment policy in the Roadway Design Manual. Also, details have been added to accommodate “bell and spigot” joints, alternate geometries are now allowed, and integral riprap/safety end treatments are accommodated.

These culvert and drainage standard drawings and other standard drawings are available from the Bridge Standards (English) web pages in MicroStation® “dgn” and Adobe® Acrobat® “pdf” formats. Please distribute this information to the appropriate district staff and area offices as well as consulting engineers working on TxDOT projects.

If you have questions or comments concerning these standard drawings, please contact Gregg Freeby, P.E., at (512) 416-2192, John M. Holt, P.E., at (512) 416-2212, or Jon T. Ries at (512) 416-2191.

Note: Original signed by Mary Lou Ralls

cc: Federal Highway Administration
Bridge Design Consultants
Administration
Division and Office Directors
Directors of Transportation Planning and Development
District Bridge Engineers
Bridge Division Employees