



# MEMORANDUM

**TO:** District Engineers

**DATE:** January 24, 2012

**FROM:** Gregg A. Freeby, P.E.

**SUBJECT:** Revised Culvert and Drainage Standard Drawings

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Revised culvert and drainage standard drawings, with a revision date of January 2012, are posted on the TxDOT web site and are available for immediate use.

Standard drawing **PW**, depicting parallel wingwalls for box culverts, is revised to include an option to slope the ends of the wingwall when bridge railing is not required. This option was suggested by the Paris District as a construction detail they have had success with in mitigating erosion at wingwall ends. Conventional wingwall ends and the new, sloped wingwall ends are differentiated on the PW standard by the designations PW-1 and PW-2, respectively.

When using this revised PW standard drawing, designers need to ensure the correct wingwall end type, PW-1 or PW-2, is identified in the plans for each culvert and included in the bid code description.

The spreadsheet **bcs-set.xls**, a tool to assist in completing the BCS working drawing, is revised to accommodate these new options to parallel wingwall ends.

A new example BCS standard drawing is provided to complement the revisions noted above.

These revised standard drawings apply to construction projects beginning with the July 2012 letting. Prior use is at the option of each District.

These and other bridge standard drawings are available on the Bridge Standards web pages in MicroStation® "dgn" and Adobe® Acrobat® "pdf" formats. See <http://www.dot.state.tx.us/business/standardplanfiles.htm> .

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

Note: Original Signed By Gregg A. Freeby

cc: Federal Highway Administration  
Bridge Design Consultants  
Administration  
Division and Office Directors

Directors of Transportation Planning and Development  
District Bridge Engineers  
Bridge Division Employees