



# MEMORANDUM

**TO:** District Engineers

**DATE:** May 4, 2011

**FROM:** David P. Hohmann, P.E.

**SUBJECT:** New and Revised Bridge Railing and Rail Anchorage Standard Drawings

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New and revised bridge railing and rail anchorage standard drawings with an issue/revision date of May 2011 are posted on the TxDOT web site and are available for immediate use.

New bridge rail **Type C412** is an aesthetic, 42-inch tall concrete rail that can be used as a traffic-only rail or as a combination traffic/pedestrian rail. It was successfully crash-tested to meet the Test Level 4 (TL-4) requirements listed in NCHRP Report 350. Note that it is wider than most other standard rails, with nominal face of rail 1.5-feet from the bridge edge.

Rail **Type SSTR** is revised to indicate that it was successfully crash-tested to meet the TL-4 requirements listed in the *AASHTO Manual for Assessing Safety Hardware (2009)*. These test requirements are more stringent than the TL-4 requirements listed in NCHRP Report 350.

Guide drawing **C-RAIL-R** is revised to provide details for retrofitting rail types SSTR and T551 to 6-inch thick slab overhangs of pan form bridges. Recent research and crash-test results demonstrated the structural adequacy of existing pan form overhangs when retrofit with either of these two traffic rails using the details provided on this revised guide drawing.

Standard drawing **TRF** is revised to accommodate more rail types with an increased width.

Standard drawing **RAC** and guide drawing **RAC-R** are revised to accommodate rail types C412 and T66, along with minor editorial and weld symbol revisions.

The standard drawings for the following rail types have minor editorial revisions:

**T1F, T1W, T221, T223, T401, T402, T411, T551, T552, T66, T77, T80HT, T80SS, C1W, C221, C223, C402, C411, and PR2.**

These new and revised standard drawings apply to construction projects beginning with the December 2011 letting. Prior use is at the option of each District. Prior use of revised standard drawing TRF in an existing plan set is not recommended as a quantity adjustment to Class C Concrete would be necessary.

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 David P. Hohmann

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