



# MEMO

February 5, 2020

**To:** District Engineers

**From:** Graham Bettis, P.E.  
Division Director, Bridge Division

**Subject:** New and Revised Culvert and Drainage Standard Drawings

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New and revised culvert and drainage standard drawings, with issue date of February 2020, are posted on the TxDOT web site and available for immediate use.

In general, updates to these standards include updating reinforcement lap lengths; adhesive anchor notes; updating bolt callout to the current ASTM; and editorial revisions. In addition, if called for elsewhere in the plans, galvanized reinforcement may be used.

Notable additions and revisions to the standard drawings include:

- **Single and Multiple Box Culverts (SCC and MCC)** now include box sizes 6' x 2', 8' x 3', 9' x 4', and 10' x 4'. The culvert designs were updated to simplify the reinforcement scheme and to increase the minimum top slab thickness to 8 inches.
- **Single and Multiple Box Culverts Miscellaneous Details (SCC-MD and MCC-MD)** have been updated to allow the use of adhesive anchors to lengthen culverts for all situations except skewed culverts with less than 2 feet of fill.
- **Precast Single Box Culverts (SCP)** now include box sizes 6' x 2', 8' x 3', 9' x 4', and 10' x 4. In addition, the reinforcement was updated to be in agreement with ASTM C1577.
- Precast Inlets & Manholes now include the new **Precast Area Zone Drain within Clear Zone (PAZD-CZ)** standard. The PAZD-CZ is intended for use within the clear zone, but outside of the roadway. This is an area drain that is recessed in a riprap apron in order to allow errant vehicles to traverse over the top.
- Inlets and Drains now include the new **Cast-in-Place Curb Inlet Outside of Roadway (CCO)**. The CCO can be used as an alternate to the Precast Curb Inlet Outside of Roadway (PCO).
  - Include both standards (CCO and PCO) within a plan set, unless the District has a preference toward cast-in-place or precast. Then only include the appropriate standard.
  - For precast only or precast with the cast-in-place alternate, use the bid codes for the precast curb inlets (0465 6XXX INLET (COMPL)(PCO)). If only cast-in-place is selected, use the bid codes for cast-in-place (0465 6XXX INLET (COMPL)(CCO)).

These revised standard drawings apply to construction projects beginning with the September 2020 letting. Use of new and revised standards prior to September 2020 is at the discretion of each District.

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

For questions or comments concerning these standard drawings, please contact Taya A. Retterer, P.E. at 512/416-2719 or Jon T. Ries, at 512/416-2191.

Note: Original Signed By Graham Bettis

**CC:** Federal Highway Administration  
Bridge Design Consultants  
Senior Leadership  
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