

4000200 Concrete Structures.
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Alan Autry
850-414-4195

alan.autry@dot.state.fl.us

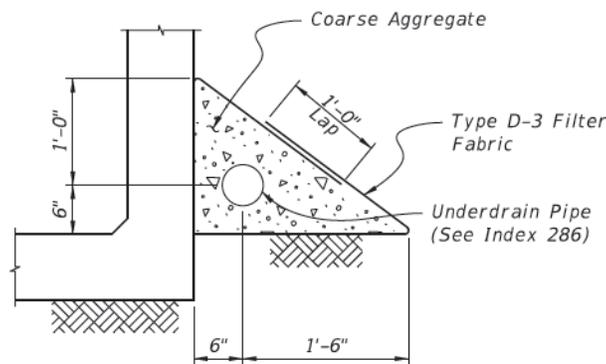
Comments: (10-12-11) Text: The problem statement on the Origination form states: Weep holes in box culverts are not always required by design; however the FDOT Specifications currently requires weep hole in all box culverts. This should probably be corrected since current specifications only require weep holes in culverts with a wall height in excess of 5'. The origination form does not indicate whether or not there is a corresponding change to the Plans Preparation Manual associated with this change. Since the proposed specification change will now require weep holes for culverts to be shown in the Plans, it is suggested to confirm that this requirement is also included in the PPM. It is suggested that paragraph 1 of 400-6 be modified to simply state: Provide weep holes in all abutments and retaining walls. Provide a continuous underdrain for box culverts in accordance with Design Standard Index No. 289. Provide weep holes for culverts when shown in the Plans. The plans (or a Standard Index) should provide all additional prescriptive elements (details) which are outlined in the current & proposed specifications, including but not limited to: • Symmetrically located weep holes. • Weep holes that are 3" in diameter & not more than 10' apart. • Weep holes that are not placed under areas of base or pavement. • Outlet ends of weep holes placed just above the ground line in front of abutments & retaining walls. • Weep holes on culverts that are placed approximately 6" above the interior floor slab. • Exterior openings of weep holes covered with galvanized mesh with a minimum of 2cf of clean, broken stone or gravel wrapped in Type D 3 filter fabric.

Response:

The Problem Statement in the Origination Form is changed as follows:

Weep holes in box culverts are not always required by design; however the FDOT Specifications currently requires weep hole in all box culverts over 5 feet in height.

The comments regarding changes to the PPM and Design Standards were forwarded to the State Drainage Office for possible inclusion in the 2013 PPM and Design Standards. The new detail that will be shown on sheet 5 of Index 289 of the 2012 Design Standards is shown below.



DETAIL "B"
UNDERDRAIN DETAIL
(Similar to Type II ~ Index 286)

12-2-11 From the State Specifications Office (HRP): Based on conversations with Andre, the specification will be changed to no longer require weep holes in box culverts. There is no apparent need to provide weep holes in box culverts and the current requirements cause confusion in the field resulting in questions. If for some reason, a designer feels weep holes are needed then the details would be shown in the plans. The requirements for weep holes in retaining walls and abutments remain unchanged. A continuous underdrain will be required for box culverts to aid in drainage as shown above.

Pat McCann

pat.mccann@dot.state.fl.us

Comments: (11-9-11) District 4 Construction has the following comments. "Provide a continuous underdrain for box culverts in accordance with Design Standard Index No. 289." I don't see any mention of underdrains in STD 289.

Response: The 2012 Design Standard Index No. 289 will have a new detail (shown above) for the continuous underdrain.
