

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## Inter-Departmental Memorandum

TO: John Pickering  
Roadway Design Division Engineer

DATE: April 19, 2002

FROM: Steven W. Reeves  
Quality Control Engineer

PROJECT NO: Box Culvert  
Extensions

INFORMATION COPY TO:

COUNTY:

I talked with Brad Lewis and Leroy Crisco of the Construction Division about extending box culverts. I also talked to Kent Reeves, Meridian Project office, and Jessie Stewart, District 2 headquarters.

Mr. Luckett has been placing the following note on his box extensions: "Remove parapet, wings and apron. Expose 18" of steel in barrel to tie extension steel to. Extend using full collar." The problem comes in the field when they try to expose the 18" of steel. Either cracks occur in the barrel, which Mr. Jessie Stewart says is probably caused by using too large a jackhammer, or leaks appear at the joint. Mr. Kent Reeves also has a problem with the expansion material required with the full collar details. He said the expansion material would bridge the rough face and leak. Mr. Lewis and Mr. Crisco said that the expansion material was not supposed to go on the rough face to begin with.

Mr. Lewis and Mr. Crisco were of the same opinion on extending box culverts and Mr. Stewart had no problems in District 2 that he knew of. The final consensus between Mr. Lewis, Mr. Crisco and myself was that our note would call for the removal of parapet, apron and wings and require a full collar. The steel would not be exposed and the collar steel would not be tied in with the existing box. This configuration would then work similar to our construction joints allowing the expansion and contraction movements in box. Mr. Lewis said he would explain to the project engineers that the expansion material does not go on the rough face of the walls.

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