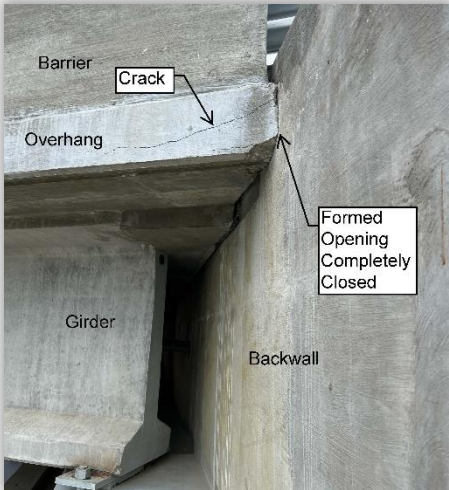


# STRUCTURE BULLETIN

## NCDOT Construction Unit

[Website email](#)

### Current Issues: Overhangs Pushing Backwalls:



Although we are approaching the end of Summer and have our eyes set on cooler Fall days, there are still some hot days left. This is a great time to check your completed or nearly completed bridges for the problem illustrated to the left. The bridge plans detail a formed opening (usually 1" to 1.5") between the end of bridge deck and backwall. This dimension is typically shown on the Expansion Joint Detail sheets as well as the Plan of Span sheets.

Occasionally, due to thermal expansion, the concrete overhang will make contact with the backwall, and if severe enough, can cause cracking of the backwall or the overhang itself. This can be caused by a few reasons:

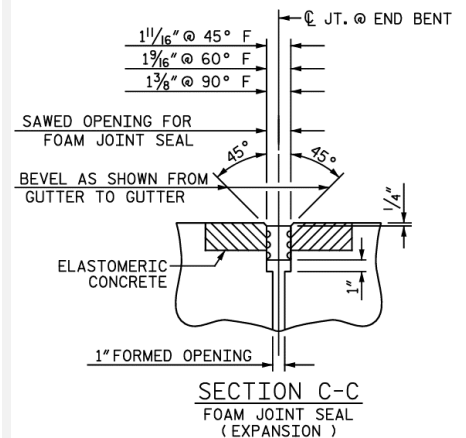
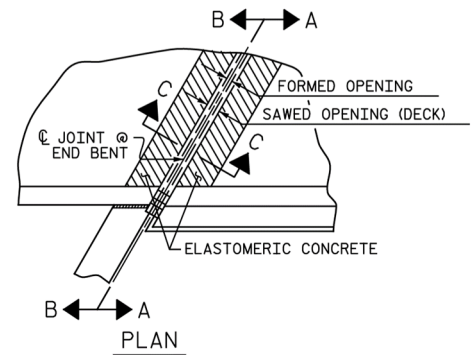
- The formed opening was not constructed per plan for the full width of the bridge deck (including overhangs)
- More expansion occurred than the designer anticipated
- Expansion material or foam was left in the joint after pouring, and not removed.

When decks are poured during colder weather, this problem is more likely to occur because the formed opening in the plans is not temperature dependent. When poured in cold weather, the girder is contracted. When summer comes, the full range of expansion will be experienced and the formed opening will get much smaller, possibly completely closed, causing damage. If your overhang is contacting or close to contacting, or if damage has already occurred, talk to your ACE about repair options. When pouring bridge decks in Winter, remember to check the formed opening to ensure it is formed correctly all the way to the outside edge of the overhang. Sometimes, with the Engineer's approval, this dimension can be increased. Also, always remember to remove any forming material from this opening so that it does not contribute to this problem (see right).



1. Current Issues: Overhangs Pushing Backwalls
2. Access to Existing Bridge Plans

### Formed Opening Details:

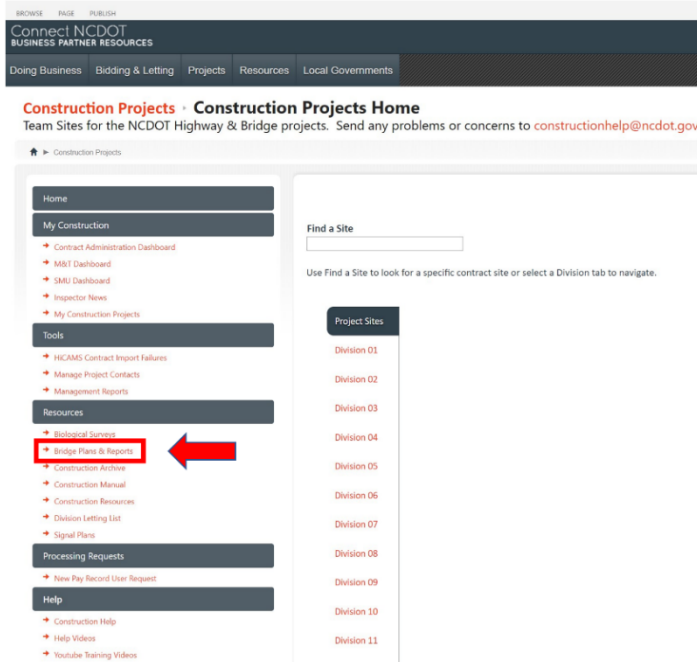


# Old Bridge Plans and Inspection Reports:

Did you know that you now have access to all of North Carolina's existing structure plans, as well as the NBIS Bridge Inspection Reports and many other documents? This information used to be only available to SMU or Bridge Maintenance, but now all construction personnel can access this information on the Team Sites. From the Construction Projects

Home page, click on the Bridge Plans Reports Tab (see screenshot). From there, you can enter your county and the last four digits of your bridge inventory number. A drop down menu will

allow you to select the plans, inspection report, or many other choices of documents to view. This information can be useful when planning for bridge demo, bridge widening, etc. On SharePlus, this information can be accessed under Construction Resources.



## Videos:

Inspection training videos can be found on the [Construction Unit YouTube playlist](#).

## Training: TBD

**Structure Bulletins** are now archived on the [Construction Unit](#) website under [Construction Resources](#).

## Structure Bulletin Signup:

Last issue we released the new email signup list for the Construction Unit's Structure and Roadway Bulletins. Please share this with others in your organization. This new signup will allow anyone interested in receiving the bulletins to sign up on their own. They will automatically be added to the distribution list. Please scan the QR code below to sign up for the new distribution lists to avoid missing any valuable information.

## Area Construction Engineers:

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9	<a href="#">Vickie Davis</a>	704-202-0945
10	Vacant	
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If you have a topic you would like to see in a future edition of the Structure Bulletin, please email us at [gearwood@ncdot.gov](mailto:gearwood@ncdot.gov)

