

**NCDOT Prestress Standard Repair Procedure for Non-Conformance Report (NCR)
SRP-02 Honeycomb or Void in Web– 04/05/2022**

Standard Repair Procedures – In-plant Repairs Only – For the Following Situations:

- **Honeycomb or Void in Web – Prestressed Concrete Girders**
- **Honeycomb or Void in Side – Cored Slabs and Box Beams**

These standard procedures will only be applicable for honeycomb or voids that have the following characteristics:

1. There is no exposed prestressing strand.
2. There may or may not be exposed reinforcing steel.
3. Total height of void shall be less than or equal to 20% of the web depth or 20% of the cored slab/box beam height.
4. Total length of void shall be less than or equal to 50% of the web depth or 50% of the cored slab/box beam height.

Structures Management Unit Review Comments

The NCDOT Structures Management Unit recommends that the following standard repair procedures be followed for all girders, cored slabs, and box beams in which honeycomb or voids have been observed in the web:

- Provide sawcut a minimum of 1" beyond the perimeter of the repair area, to a minimum depth of ½".
- Remove all unsound concrete within the repair area. Remove all concrete – unsound and sound – within the sawcut to a minimum depth of ½".
- If more than half the circumference of a reinforcing bar is exposed, remove additional concrete to 1" behind the bar. This does not apply to prestressed strands.
- For areas in which no steel is exposed, use adhesively anchored anchors, with a minimum ¼" diameter, spaced at 6" grid, to provide mechanical bond for repair material. Provide the design concrete cover for studs.
- Do not damage rebar or strand.
- Form and place repair material to original shape.
- If needed, vent or shape repair area to avoid pockets that could trap air.
- The repair material shall have a minimum compressive strength equal to or greater than that of the original beam concrete.
- The maximum size of aggregate in repair material should not exceed 2/3 of the minimum depth of the repair area.
- The repair material shall be on the NCDOT Approved Products List.
- Surface preparation, proportioning, mixing, placement, and curing of repair material should follow all manufacturer's recommendations.
- Perform repair operations in the presence of and to the satisfaction of the NCDOT on-site inspector.
- The Resident Engineer and the Area Construction Engineer may want to consider a price adjustment for the repaired member.

There shall be an NCR written and saved in the project file for future reference. The NCR will not be required to be submitted to SMU providing that the procedures outlined above are strictly followed.

If for any reason the above requirements cannot be met a NCR submittal will be required for review.

If you have any questions or comments, please contact James L. Bolden, Jr., PE at (919)707-6408 or Madonna Rorie, PE at (919)707-6508.

Sherry McEntire, PE
Structures Management Unit
(919) 707 – 6410
srmcentire@ncdot.gov