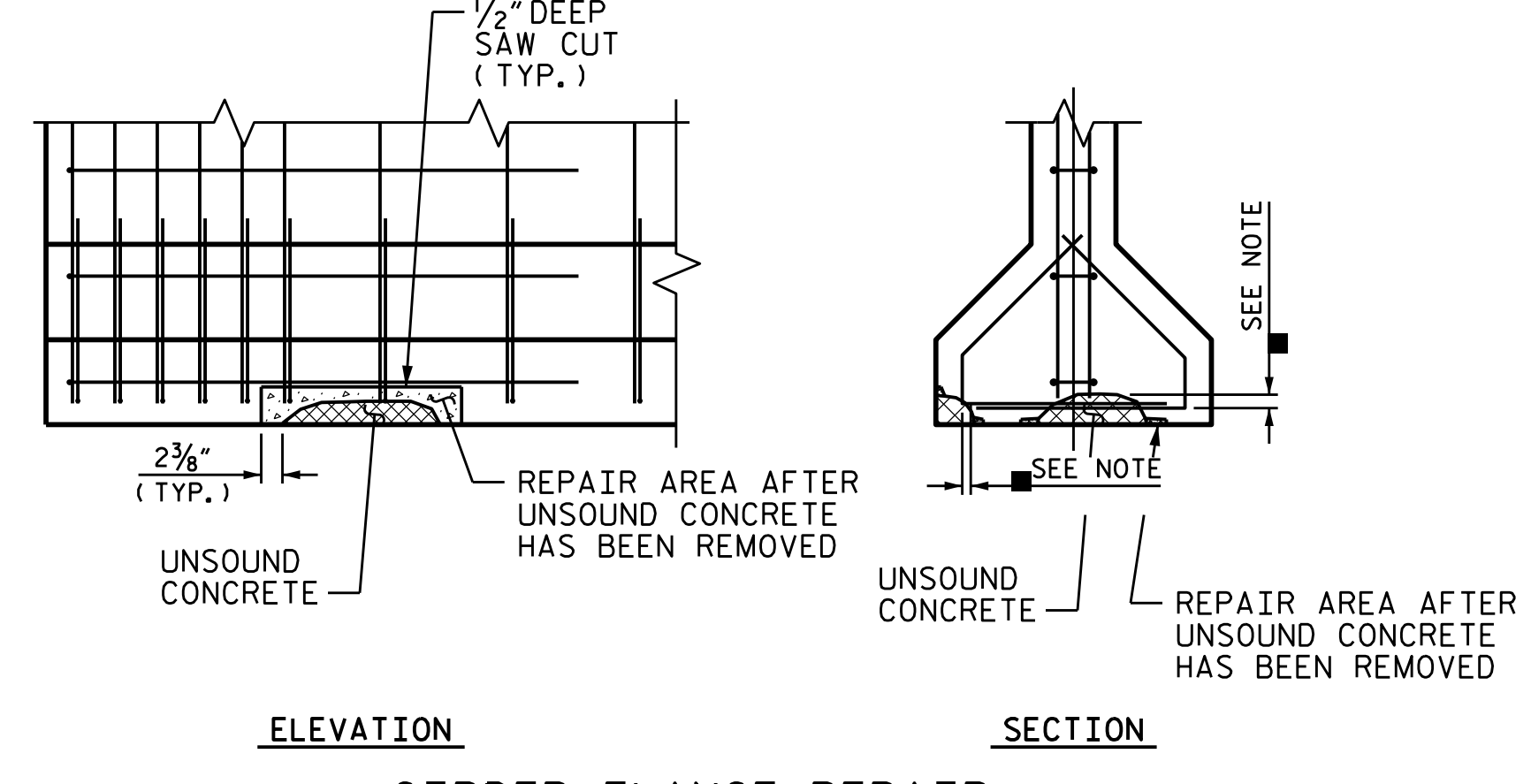
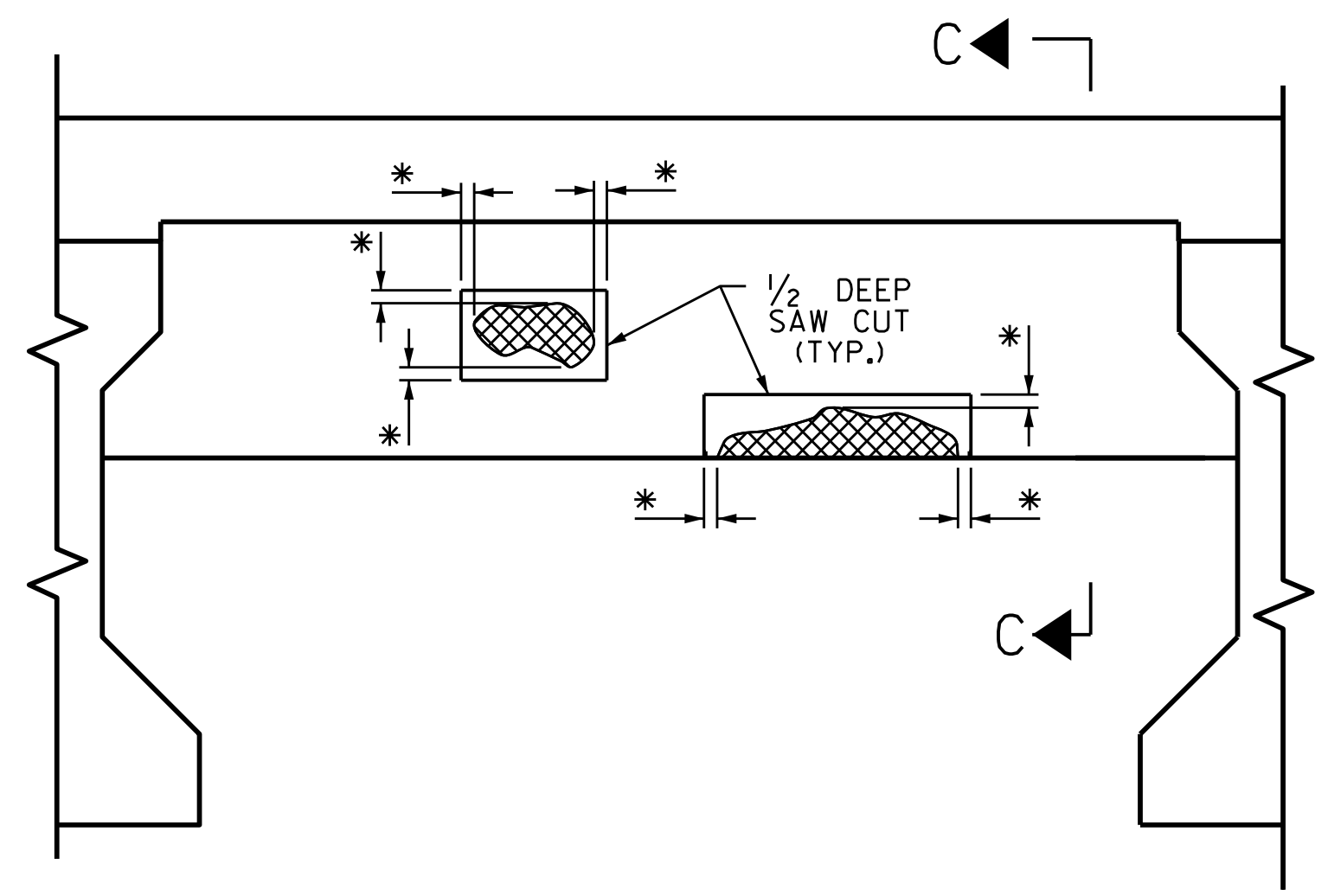


GIRDER WEB REPAIR



GIRDER FLANGE REPAIR

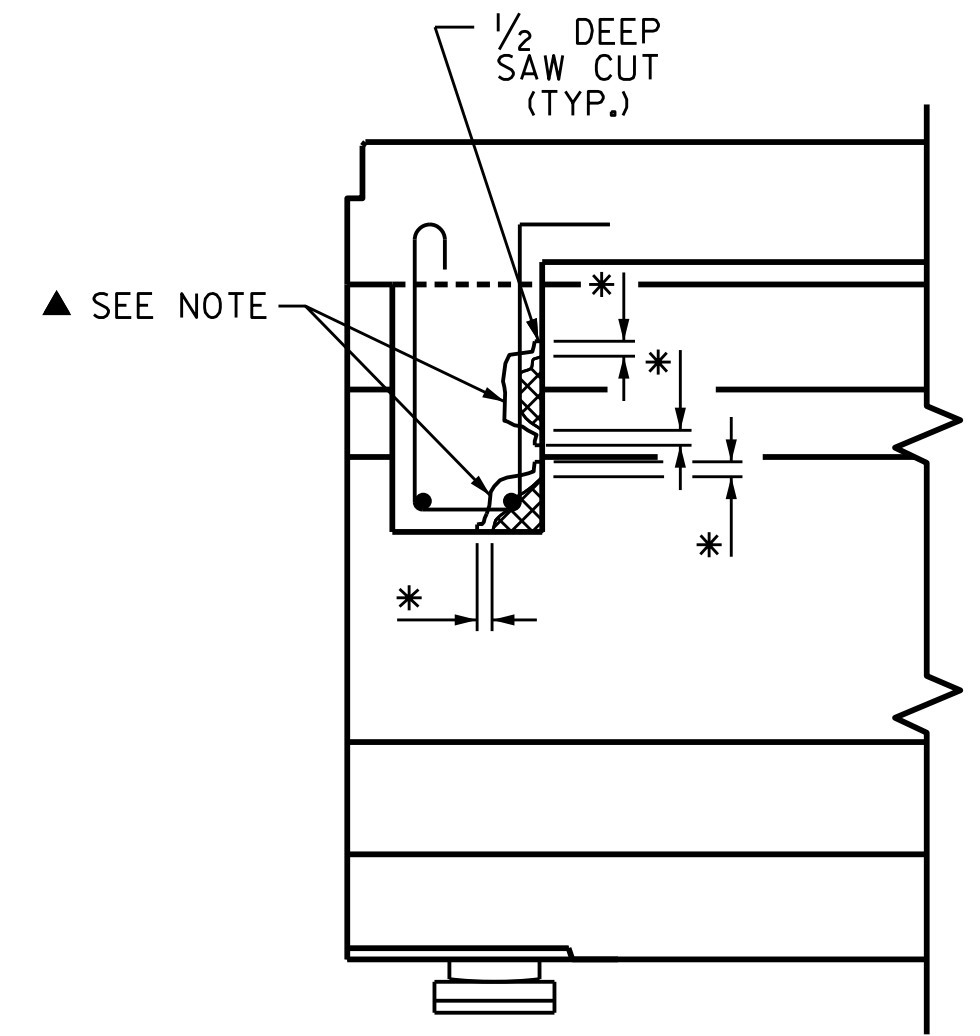
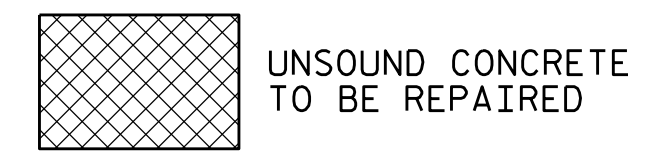
PRESTRESSED GIRDER REPAIR



TYPICAL SECTION

* 1/2" DEEP SAW CUT SHALL BE PLACED 2" INTO SOUND CONCRETE.

REPAIR KEY:



SECTION C-C

NOTES:

- PREPACKAGED MATERIAL IS REQUIRED.
- CONSULT WITH THE ENGINEER TO DETERMINE PRELOADING REQUIREMENTS WHEN REPAIR IS WITHIN THE CENTER REGION OF THE BEAM (0.25L TO 0.75L).
- FOR REPAIRS OVER TRAFFIC AND SHALLOW REPAIRS THAT DO NOT ENGAGE REINFORCEMENT, ANCHOR PATCH MATERIAL USING 1/4" GALVANIZED BOLTS, EPOXY ANCHORED WITH 2" EMBEDMENT. PLACE BOLTS IN A 6" GRID. USE A LATEX OR EPOXY PATCH MATERIAL FOR IMPROVED BOND. USE EXTREME CARE TO NOT DAMAGE STRANDS.
- FOR PRESTRESSED CONCRETE GIRDER REPAIRS, SEE SPECIAL PROVISIONS.

PRESTRESSED GIRDER REPAIR SEQUENCE:

- SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
- REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL. SAW CUT AROUND REPAIR AREA TO A MINIMUM DEPTH OF 1/2".
- REMOVE CONCRETE WITHIN SAW CUT AREA TO MINIMUM 1/2" DEPTH. IF CONCRETE IS DAMAGED BEYOND THE ORIGINAL SAW CUT, A NEW SAW CUT IS REQUIRED.
- IF MORE THAN HALF THE CIRCUMFERENCE OF A REINFORCING BAR IS EXPOSED DURING THIS PROCESS, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR. THIS DOES NOT APPLY TO PRESTRESSED STRANDS.
- ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
- CLEAN ALL EXPOSED REINFORCING BARS AND PRESTRESSED STRANDS IN ACCORDANCE WITH THE REPAIRS TO PRESTRESSED CONCRETE GIRDERS SPECIAL PROVISION. FOR BARS WITH MORE THAN 10% SECTION LOSS, SPLICE AND SECURELY TIE SUPPLEMENTAL REINFORCING BARS AS NEEDED. NOTE AND PROVIDE DETAILED DOCUMENTATION, INCLUDING LOCATION AND SEVERITY, OF ALL DAMAGE TO PRESTRESSED STRANDS THAT EXCEEDS 10% SECTION LOSS. IF FIVE OR MORE STRANDS ARE DAMAGED, NOTIFY THE ENGINEER PRIOR TO PLACEMENT OF REPAIR MATERIAL.
- REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
- PREPARE SURFACE AND PLACE APPROVED REPAIR MATERIAL ACCORDING TO PRESTRESSED CONCRETE GIRDER REPAIRS SPECIAL PROVISION. MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 2/3 THE MINIMUM REPAIR DEPTH.

PROJECT NO. HI-0007
 WILSON COUNTY
 BRIDGE NO. 970225



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PRESTRESSED CONCRETE
 GIRDER AND DIAPHRAGM
 REPAIR DETAILS

| | |
|---------------------------|---------------|
| ASSEMBLED BY : G. AYES | DATE : 5/2022 |
| CHECKED BY : A. G. ABRAHA | DATE : 5/2022 |
| DRAWN BY : NAP 08/18 | |
| CHECKED BY : | |

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S1-5 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 11 |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED