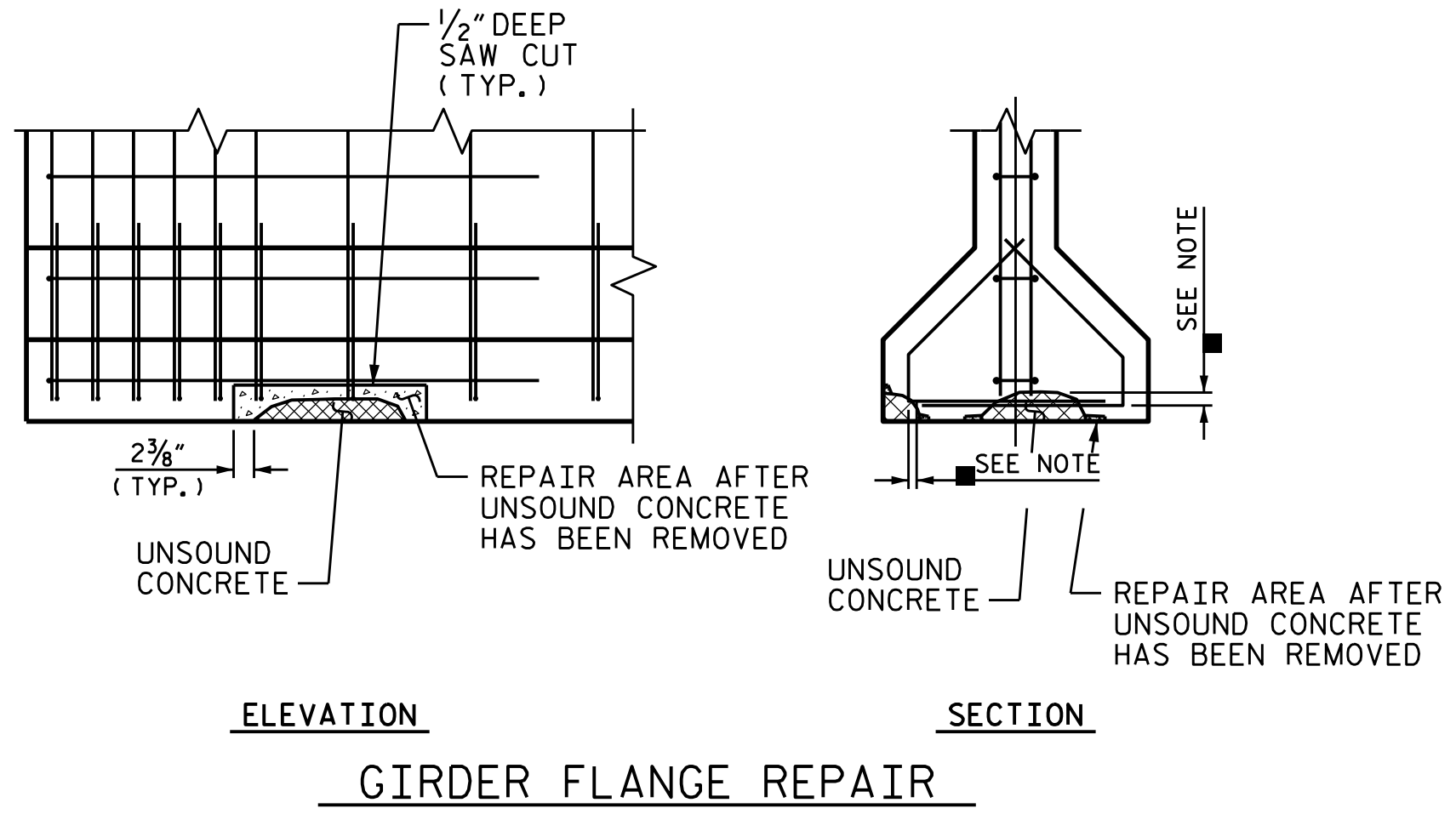
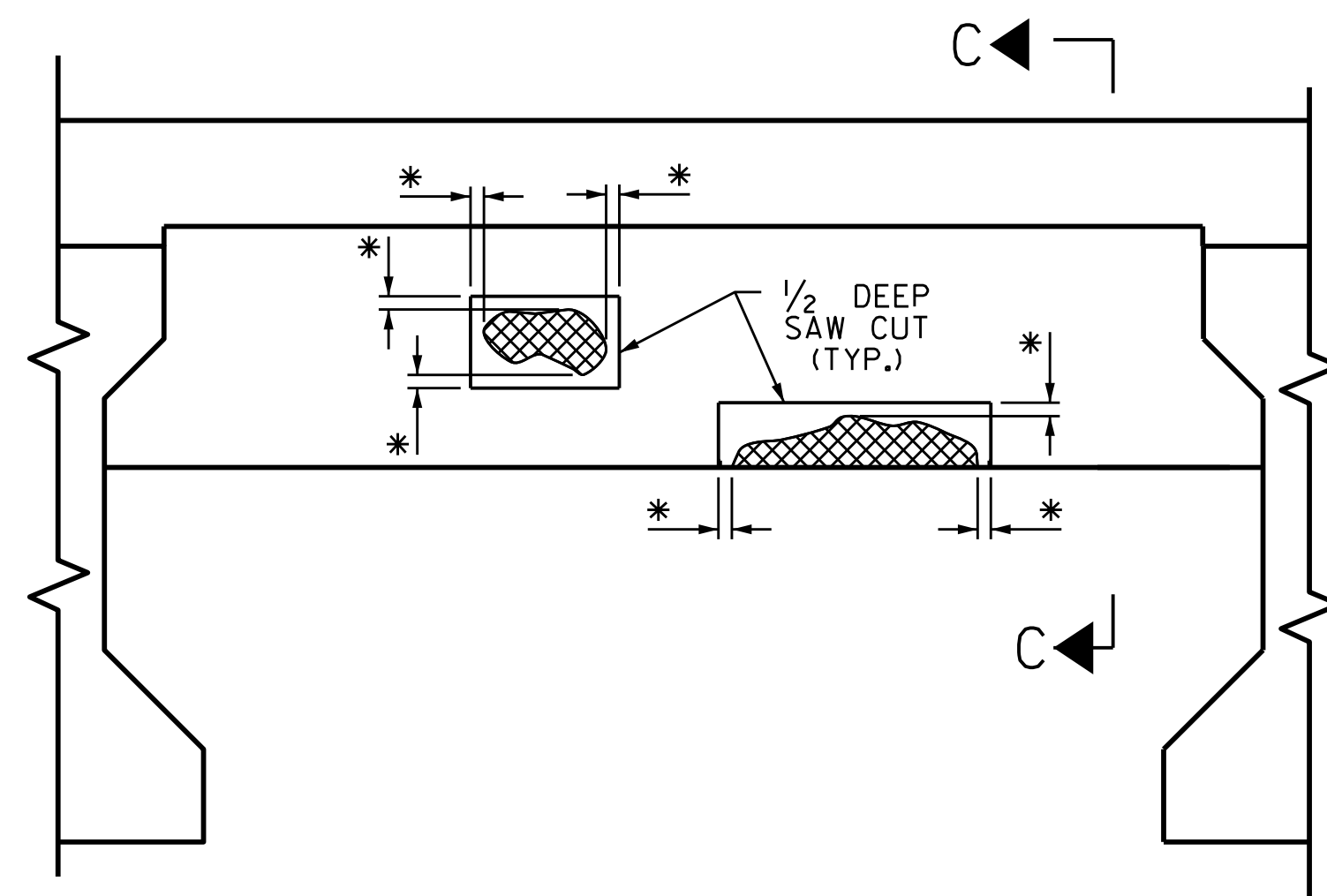


GIRDER WEB REPAIR



GIRDER FLANGE REPAIR

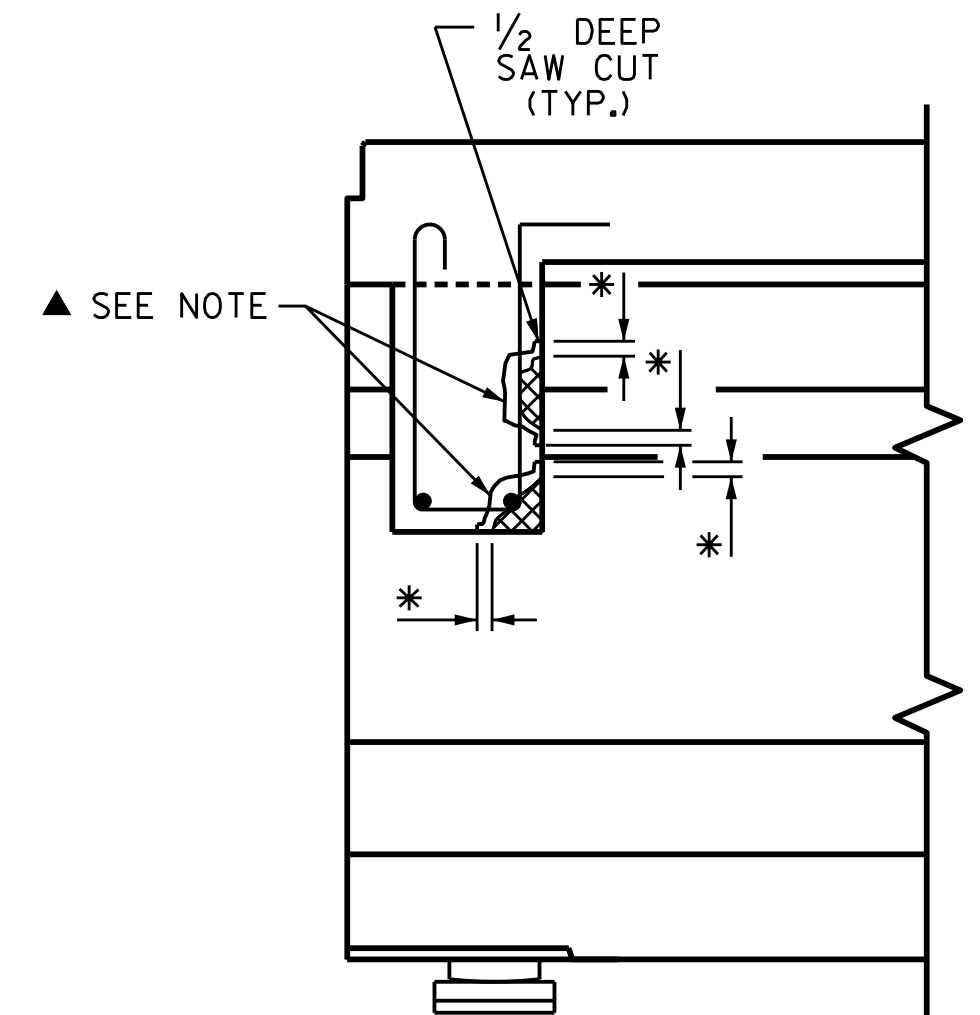
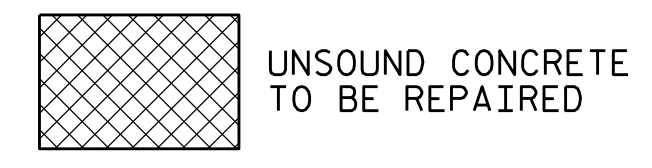
PRESTRESSED GIRDER REPAIR



TYPICAL SECTION

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

REPAIR KEY:



SECTION C-C

BENT DIAPHRAGM REPAIR DETAIL

(EXAMPLE DETAILS ONLY. ACTUAL REBAR SIZE & LOCATION MAY VARY)

**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:

1. SOUND CONCRETE TO DETERMINE EXTENTS OF REPAIR LOCATION.
2. 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".
3. 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.
4. ▲ 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.
5. ■ ALL UNSOUND CONCRETE MUST BE REMOVED, HOWEVER, PRESTRESSED STRANDS SHOULD NOT BE DISTURBED UNLESS ABSOLUTELY NECESSARY. USE EXTREME CARE TO NOT DAMAGE STRANDS.
6. 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.
7. REMOVE ALL LOOSE OR WEAKENED MATERIAL THEN CLEAN THE REPAIR AREA OF DIRT, GREASE, OIL, AND FOREIGN MATTER.
8. 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-0006  
WILSON COUNTY  
 BRIDGE NO. 970254



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:	S9-5
1			3			TOTAL SHEETS
2			4			6

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED