



EMBEDDED PLATE "B-1" DETAILS
FOR 54", 72", & 78" CFRP F.I.B.
PRESTRESSED CONCRETE GIRDERS

(2 REQ'D PER GIRDER)

NOTES

FOR CARBON FIBER REINFORCED POLYMER (CFRP) STRAND, SEE SPECIAL PROVISIONS.

FOR GLASS FIBER REINFORCED POLYMER (GFRP) BAR, SEE SPECIAL PROVISIONS.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES INDICATED IN ELEVATION VIEW.

EMBEDDED PLATE "B-1" SHALL BE STAINLESS STEEL CONFORMING TO ASTM A240 ALLOY 316L

ANCHOR STUDS SHALL BE STAINLESS STEEL CONFORMING TO ASTM F593 ALLOY 316L OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.6/D1.6M BRIDGE WELDING CODE.

AT ENDS OF GIRDERS PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 6000 PSI FOR 54" CFRP F.I.B. PRESTRESSED CONCRETE GIRDERS, 6500 PSI FOR 72" CFRP F.I.B. PRESTRESSED CONCRETE GIRDERS AND 6500 PSI FOR 78" CFRP F.I.B. PRESTRESSED CONCRETE GIRDERS EXCEPT GIRDERS IN SPANS G & I WHERE IT SHALL BE 5000 PSI.

DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

THE TOP SURFACE OF THE GIRDER, EXCLUDING THE OUTSIDE 4" AND LINK SLAB AREA, SHALL BE RAKED TO A DEPTH OF 1/4".

THE CONTRACTOR HAS THE OPTION TO PROVIDE, AT NO ADDITIONAL COST TO THE DEPARTMENT, 2 ADDITIONAL STRANDS AT THE TOP OF THE GIRDER TO FACILITATE TYING OF THE REINFORCEMENT. THESE STRANDS SHALL BE PULLED TO A LOAD OF 4500 lbs.

FOR 54" CFRP F.I.B., 72" CFRP F.I.B. AND 78" CFRP F.I.B. PRESTRESSED CONCRETE GIRDERS, SEE SPECIAL PROVISIONS.

PROJECT NO. B-4863
CARTERET COUNTY
STATION: 34+75.00 -L-



DocuSigned by:
Ahmad Ighwair
48948044C555489

3/9/2020

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
PRESTRESSED CONCRETE
GIRDER

DRAWN BY : A. A. IGHWAIR DATE : 01-20
CHECKED BY : T. H. CARROLL DATE : 01-20
DESIGN ENGINEER OF RECORD: A. A. IGHWAIR DATE : 01-20

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S1-095
2			4			194