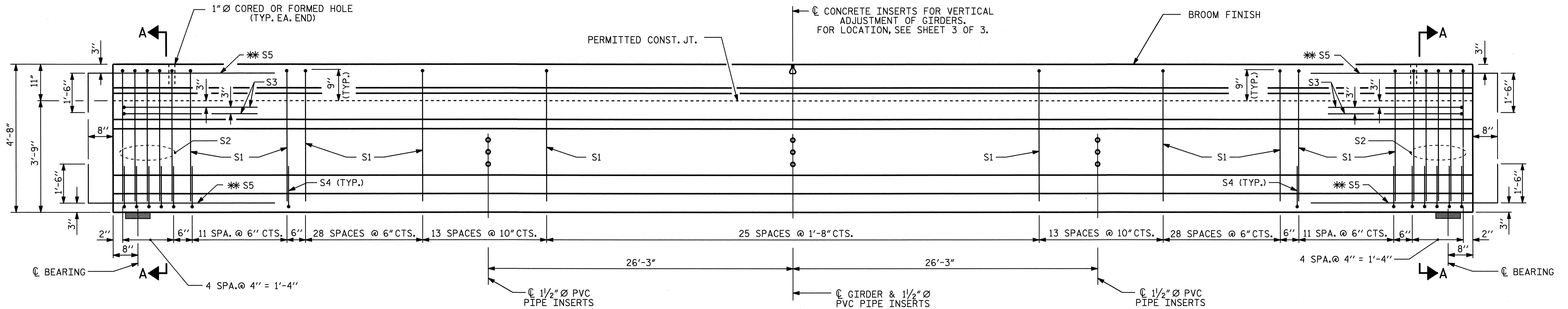


PLAN OF GIRDER BELOW PERMITTED CONSTRUCTION JOINT
(EXTERIOR & INTERIOR GIRDER)



ELEVATION OF GIRDER
(EXTERIOR & INTERIOR GIRDER)

THE TYPE III PRESTRESSED CONCRETE DECK GIRDER SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR. FOR CALCIUM NITRITE CORROSION INHIBITOR, SEE SPECIAL PROVISIONS.

THE TYPE III PRESTRESSED CONCRETE GIRDER SHALL CONTAIN AT LEAST ONE POZZOLAN IN THE AMOUNT SPECIFIED IN ARTICLE 1024-1 (A) OF THE STANDARD SPECIFICATION.

PRESTRESSED CONCRETE DECK GIRDER NOTES

AN ALTERNATE DETAIL TO THE CONCRETE INSERT FOR VERTICAL ADJUSTMENT OF GIRDERS MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

THE CONCRETE INSERT ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS:

- FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF AASHTO M169, GRADE 12L14 AND SHALL HAVE A MINIMUM LENGTH OF THREADS OF 1 1/2".
- THE WIRE STRUT SHOWN IN THE CONCRETE INSERT DETAIL IS THE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 PSI. AS AN OPTION, A 1/16" Ø WIRE STRUT WITH A MINIMUM TENSILE STRENGTH OF 100,000 PSI IS ACCEPTABLE.

3" x 3" x 3/8" ANGLES AND CONNECTOR PLATE SHALL CONFORM TO AASHTO M270 GRADE 36 OR APPROVED EQUAL. ALL STUD ANCHORS SHALL CONFORM TO AASHTO M169 GRADES 1010 THRU 1020 OR APPROVED EQUAL.

STUD ANCHORS SHALL BE SHOP WELDED AS SHOWN ON THE PLANS. STUD ANCHORS SHALL BE ELECTRIC ARC END WELDED WITH COMPLETE FUSION.

3" x 3" x 3/8" ANGLES, CONNECTOR PLATE AND STUDS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

THE 1/2" Ø PIPE SLEEVE SHALL BE CUT FROM SCHEDULE 40 PVC PLASTIC PIPE. THE PVC PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785.

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW-RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL SHALL BE GRADE 60.

PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 2" BEYOND 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 5500 PSI.

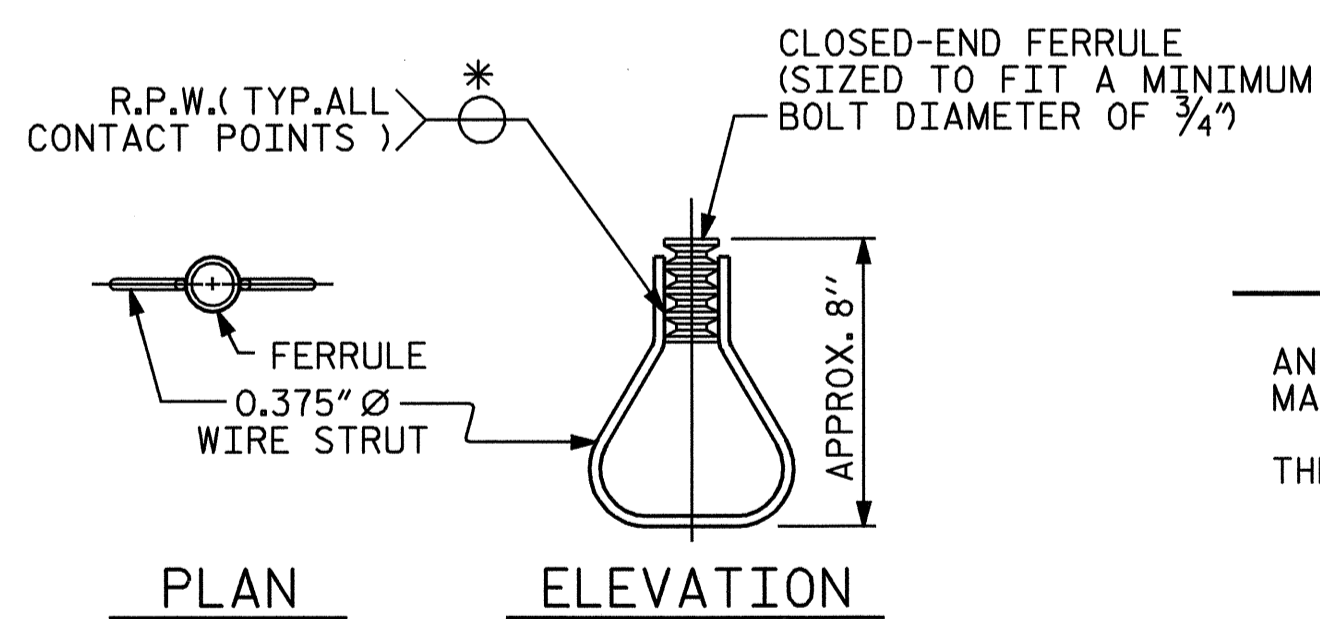
IF THE PERMITTED CONSTRUCTION JOINT IS USED, THE JOINT SHALL BE KEPT CLEAN AND FREE OF DEBRIS AND THE SURFACE OF THE JOINT SHALL BE RAKED TO A DEPTH OF 1/4". THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN THE CONCRETE IN THE ENTIRE GIRDER HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 5500 PSI.

FOR VERTICAL CRACKS IN PRESTRESSED CONCRETE GIRDERS PRIOR TO DETENSIONING, SEE SPECIAL PROVISIONS.

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 REINFORCING STEEL. THESE STRANDS SHALL BE PULLED TO A LOAD OF 4500 lbs.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

FOR TYPE III PRESTRESSED CONCRETE DECK GIRDER, SEE SPECIAL PROVISIONS.



CONCRETE INSERT DETAIL

* EACH WELDED ATTACHMENT OF WIRE TO FERRULE SHALL DEVELOP THE TENSILE STRENGTH OF THE WIRE.



PROJECT NO. B-3700
STANLY COUNTY
STATION: 16+85.00 -L-

SHEET 2 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. 3-7 TOTAL SHEETS 22
TYPE III PRESTRESSED CONCRETE DECK GIRDER DETAILS						
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

ASSEMBLED BY: B. C. HANKS DATE: 2/9/05
CHECKED BY: R. W. WRIGHT DATE: 3/2/05