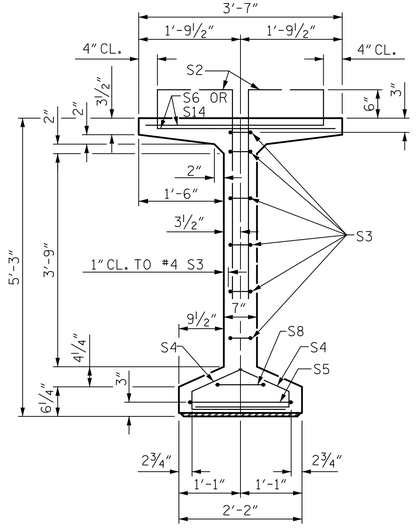
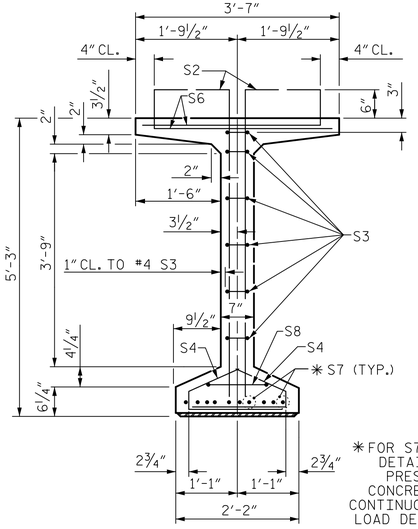
DocuSign Envelope ID: 28E2E83D-424F-4B5A-9FA6-3D802DC20173

DATE: 5/27/2020
TIME: 1:25:00 PM

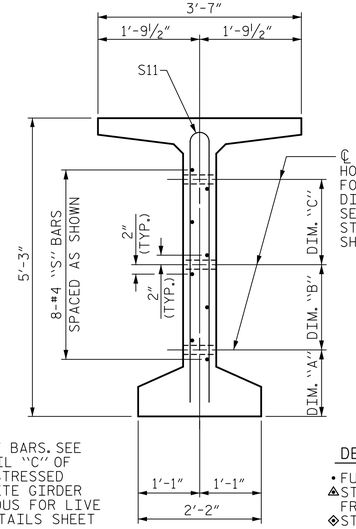



SECTION A-A




SECTION B-B

✳FOR S7 BARS. SEE DETAIL "C" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET

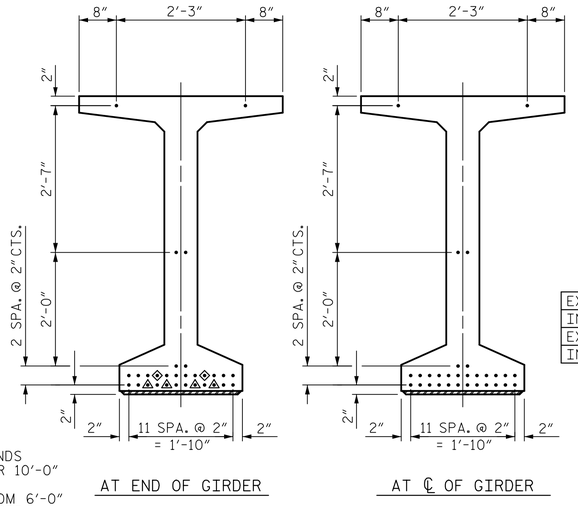



SECTION C-C

(S1, S6 AND S9 BARS NOT SHOWN)

DEBONDING LEGEND

- • FULLY DEBONDED STRANDS
- ▲ STRANDS DEBONDED FOR 10'-0" FROM END OF GIRDER
- ◈ STRANDS DEBONDED FROM 6'-0" FROM THE END OF GIRDER




AT END OF GIRDER

AT ℄ OF GIRDER

0.6"Ø LOW RELAXATION STRAND LAYOUT

| | |
|---|---|
| EXTERIOR GDR. | S1 |
| INTERIOR GDR. | S1 |
| EXTERIOR GDR. | S12 |
| INTERIOR GDR. | S13 |

## 0.6"Ø L. R. GRADE 270 STRANDS

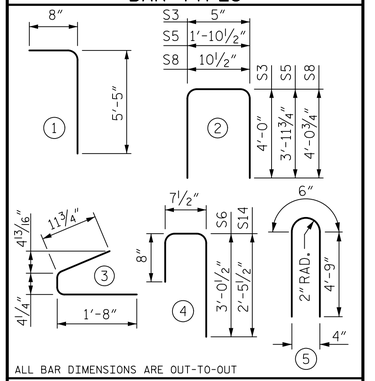
| AREA (SQUARE INCHES) | ULTIMATE STRENGTH (LBS. PER STRAND) | APPLIED PRESTRESS (LBS. PER STRAND) |
|---|---|---|
| 0.217 | 58,600 | 43,950 |

## REINFORCING STEEL FOR ONE GDR

| BAR | NUMBER | SIZE | TYPE | LENGTH | WEIGHT |
|---|---|---|---|---|---|
| S1 | 190 | #4 | 1 | 6'-1" | 772 |
| S2 | 36 | #5 | 1 | 6'-1" | 228 |
| S3 | 12 | #4 | 2 | 8'-5" | 67 |
| S4 | 76 | #4 | 3 | 3'-0" | 152 |
| S5 | 1 | #5 | 2 | 9'-10" | 10 |
| S6 | 222 | #5 | 4 | 4'-4" | 1003 |
| ✳S7 | 10 | #5 | STR | 3'-8" | 38 |
| S8 | 2 | #5 | 2 | 9'-0" | 19 |
| S9 | 19 | #5 | STR | 3'-3" | 64 |
| S10 | 1 | #3 | STR | 1'-10" | 1 |
| S11 | 8 | #5 | 5 | 10'-0" | 83 |
| S11 | 16 | #5 | STR | 10'-0" | 134 |
| S12 | 16 | #4 | STR | 8'-0" | 86 |
| S13 | 16 | #4 | STR | 4'-0" | 177 |
| S14 | 4 | #5 | 4 | 3'-9" | 16 |

✳NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

## BAR TYPES



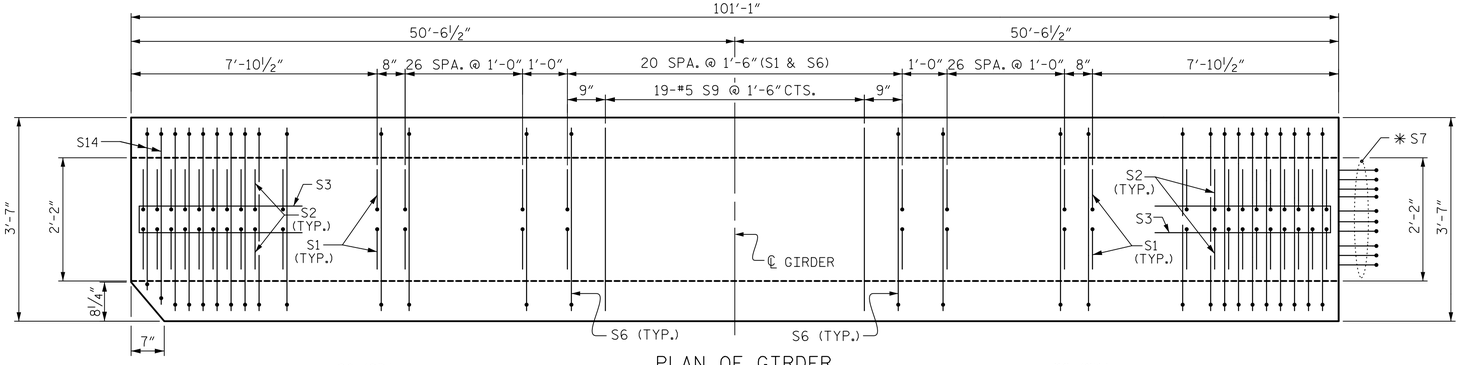

ALL BAR DIMENSIONS ARE OUT-TO-OUT

## QUANTITIES FOR ONE GIRDER

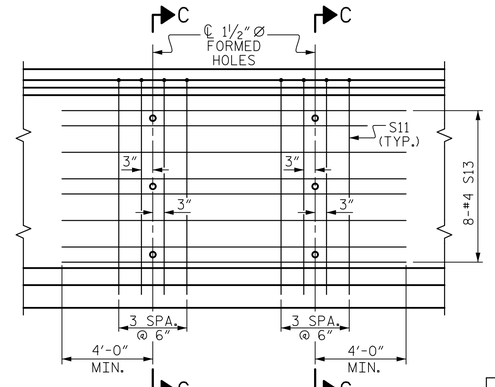
| | | REINFORCING STEEL LB. | 8,500 PSI CONCRETE C.Y. | 0.6"Ø L.R. STRANDS No. |
|---|---|---|---|---|
| SPAN A | EXTERIOR GDR. | 2,531 | 20.0 | 30 |
| | INTERIOR GDR. | 2,673 | 20.0 | 30 |
| SPAN B | EXTERIOR GDR. | 2,531 | 20.0 | 30 |
| | INTERIOR GDR. | 2,673 | 20.0 | 30 |

## GIRDERS REQUIRED

| | No. | LENGTH | TOTAL LENGTH |
|---|---|---|---|
| SPAN A | 4 | 101'-1" | 404'-4" |
| SPAN B | 4 | 101'-1" | 404'-4" |

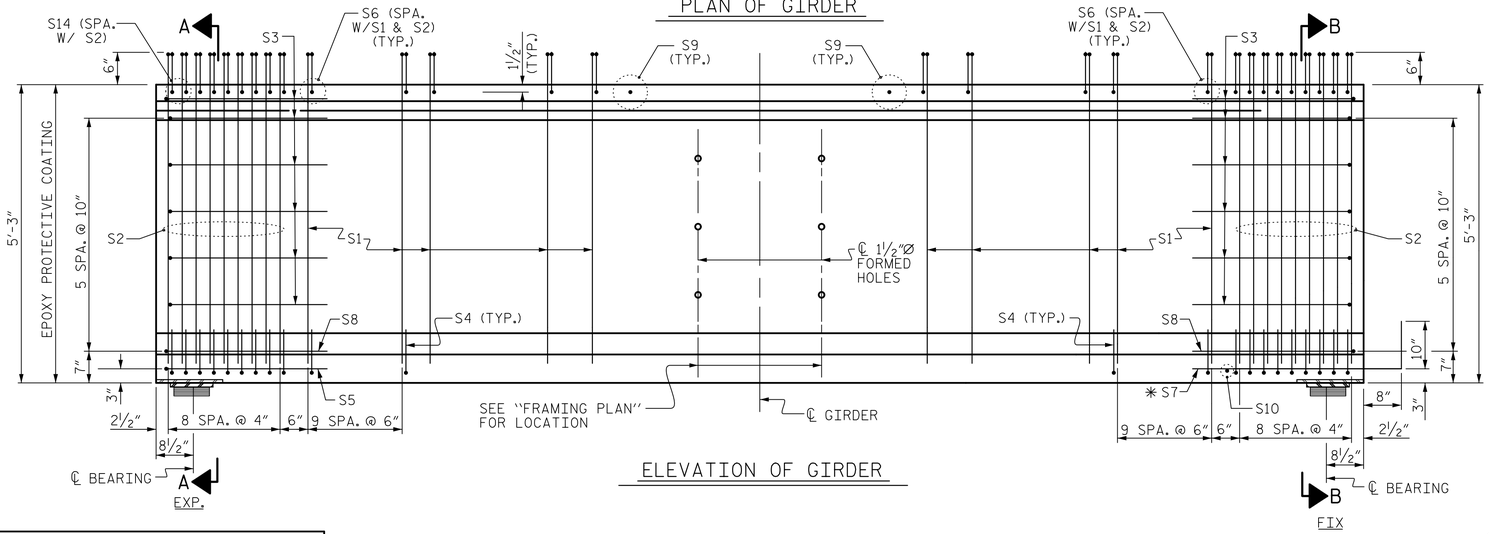



PLAN OF GIRDER

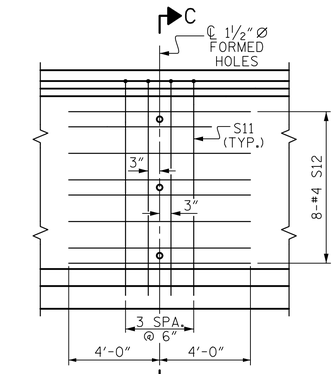



PARTIAL ELEVATION

SHOWING INTERMEDIATE STEEL DIAPHRAGM REINFORCING STEEL FOR GIRDER Nos. 2 & 3




ELEVATION OF GIRDER




PARTIAL ELEVATION

SHOWING INTERMEDIATE STEEL DIAPHRAGM REINFORCING STEEL FOR GIRDER Nos. 1 & 4

PROJECT NO. BR-0042

ROCKINGHAM COUNTY

STATION: 19+56.99 -L-

SHEET 1 OF 3

AECOM
AECOM TECHNICAL SERVICES OF NC, INC.
701 CORPORATE CENTER DRIVE, SUITE 475
RALEIGH, NC 27607
(919) 854-6200 www.aecom.com
AECOM License No. F-0342

DocuSigned by: John C. Morrison
NORTH CAROLINA PROFESSIONAL SEAL 030474 ENGINEER JOHN C. MORRISON
5/27/2020

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

# 63" PRESTRESSED CONCRETE MODIFIED BULB TEE CONTINUOUS FOR LIVE LOAD SPANS A AND B

| REVISIONS | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-10 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 28 |

| | | |
|---|---|---|
| ASSEMBLED BY : | H.T. ROSEMOND | DATE : 6/2019 |
| CHECKED BY : | D. RITACCO | DATE : 6/2019 |
| DRAWN BY : | EEM 2/6/97 | REV. 6/13 MAA/GM |
| CHECKED BY : | VAP 2/6/97 | REV. 1/15 MAA/TMG |
| | | REV. 12/17 MAA/THC |

STD. NO. PCG7

USER: maenzik
DGN: \\srali1p001\Data\Proj\tets\60571086 - BR-0042\900_CAD\05\90_CADD\70_NCDOT_TIP\Structures\04 Drawings\400_19_510_BR-0042_SMU_PCG1.dgn