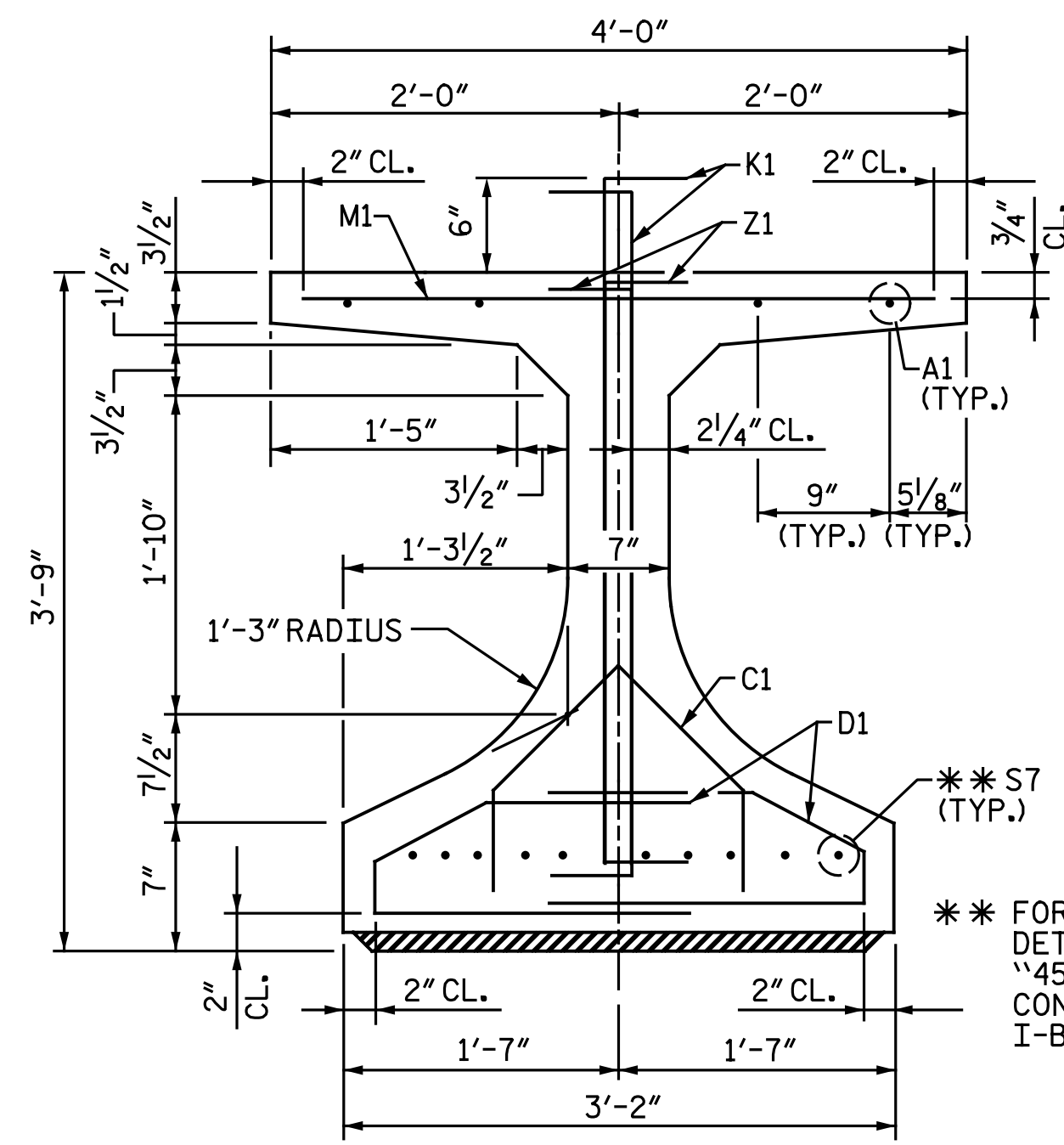
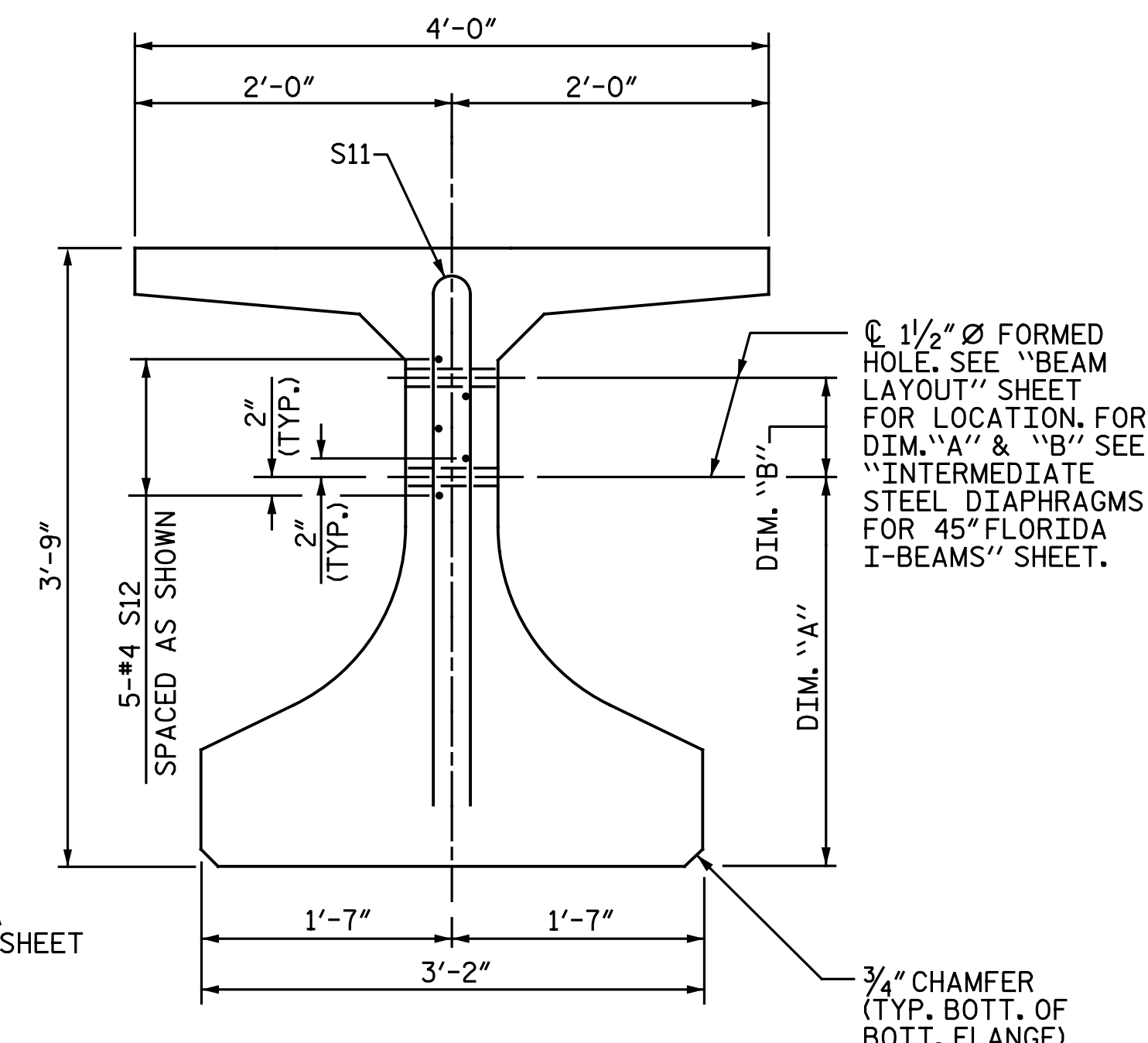


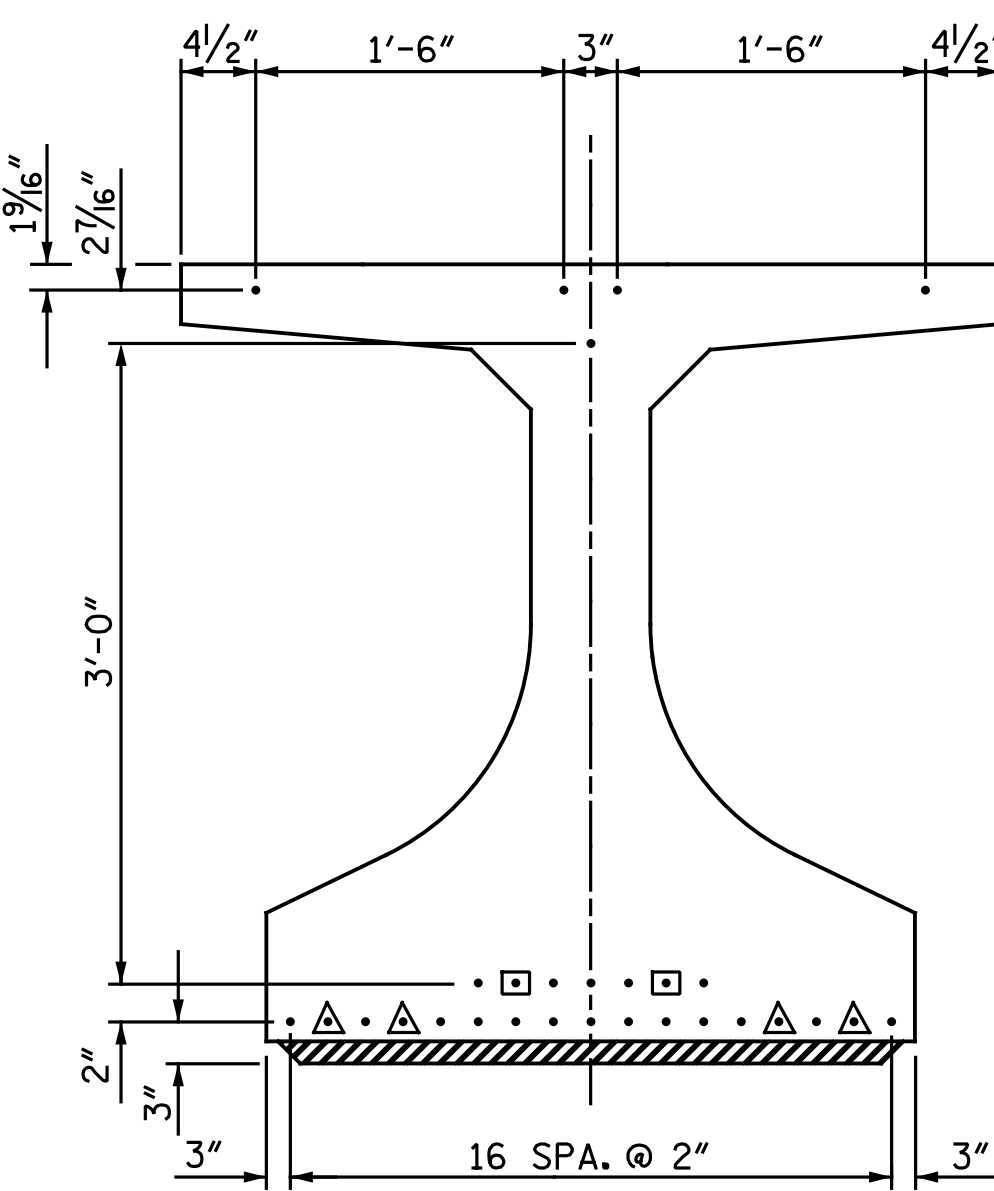
SECTION A-A
(Y1 BARS NOT SHOWN FOR CLARITY)



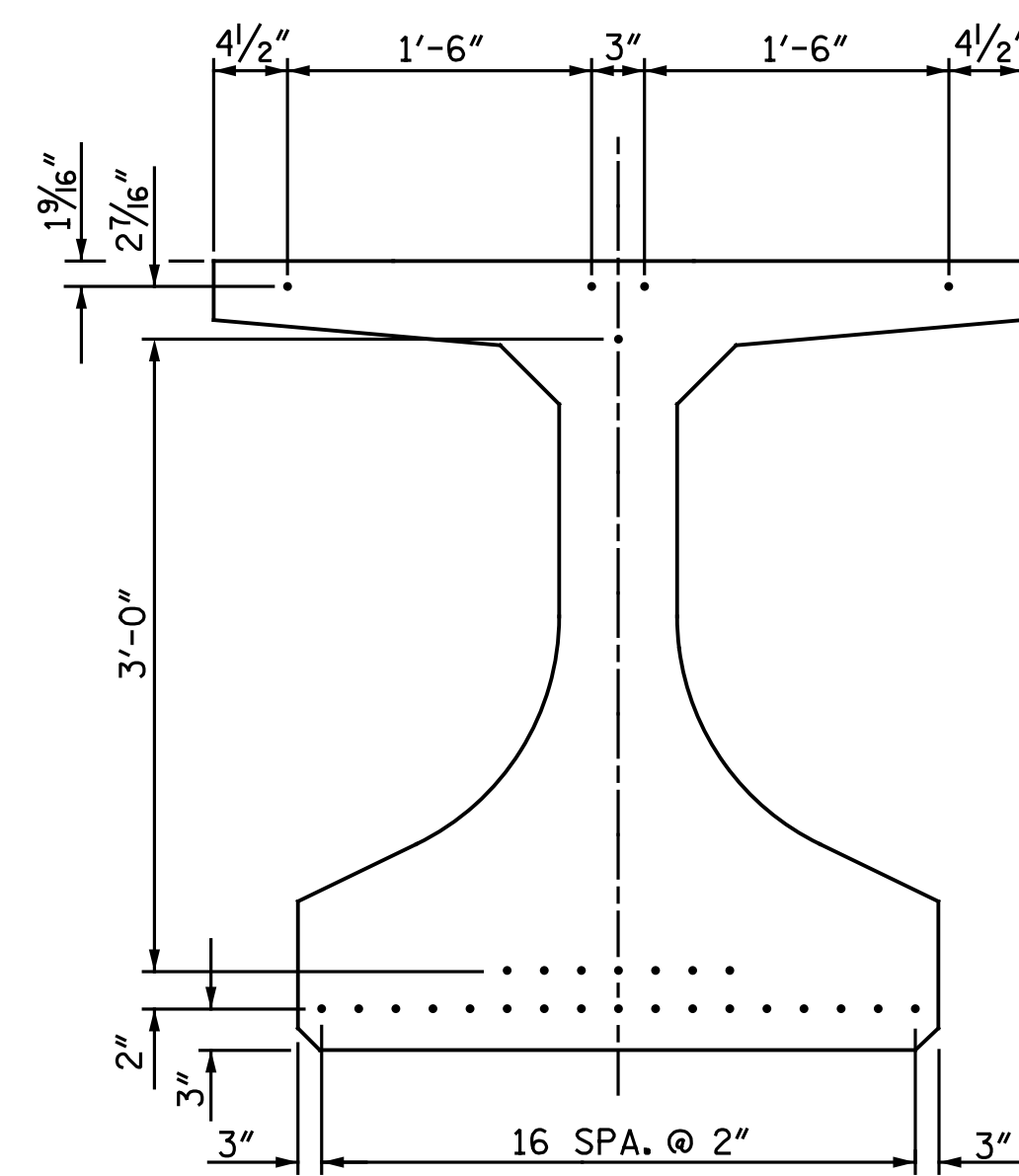
SECTION B-B
(Y1 BARS NOT SHOWN FOR CLARITY)



SECTION C-C
(MAIN BEAM REINFORCEMENT NOT SHOWN FOR CLARITY)



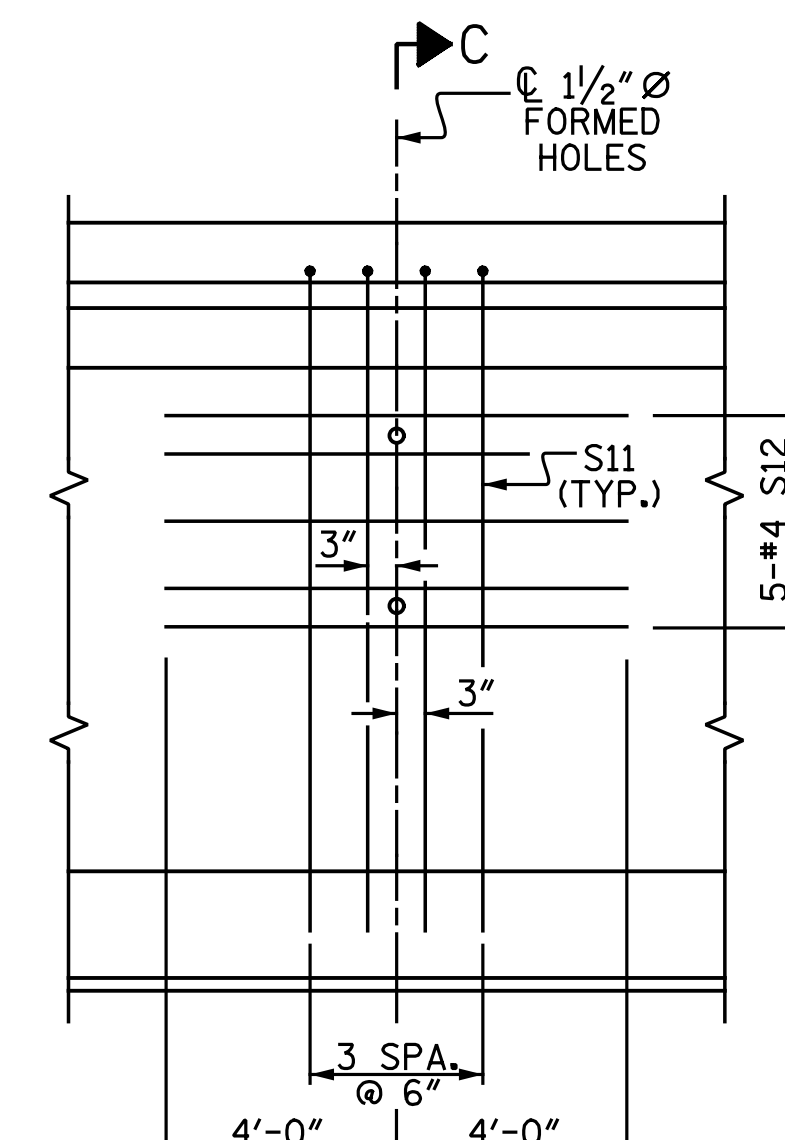
AT END OF BEAM



AT CL OF BEAM

0.6" Ø LOW RELAXATION STRAND LAYOUT

- DEBONDING LEGEND
- FULLY BONDED STRANDS
 - ◼ STRANDS DEBONDED FOR 4'-0" FROM END OF BEAM
 - ◻ STRANDS DEBONDED FOR 6'-0" FROM END OF BEAM

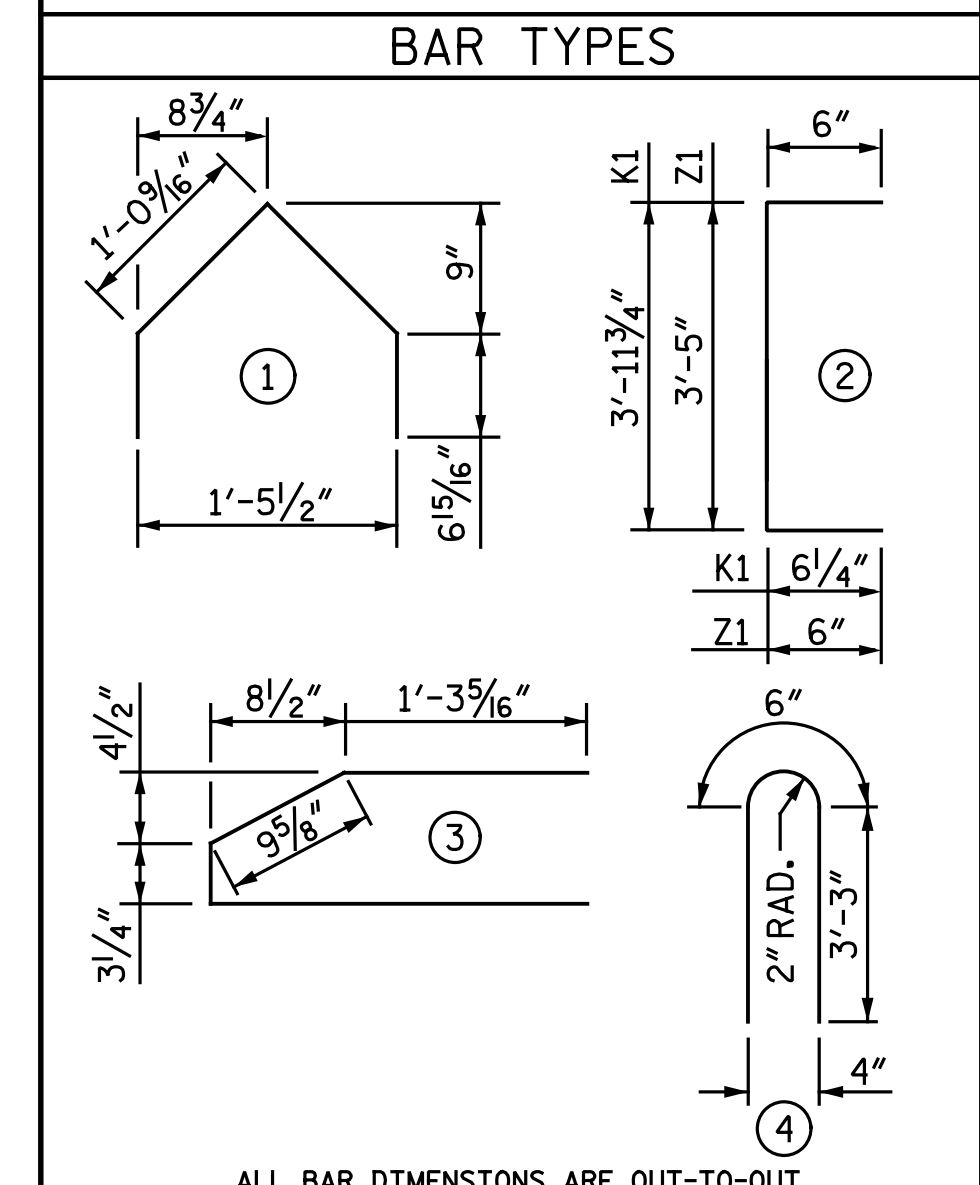


PARTIAL ELEVATION

| 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 BEAM | | | | | |
|--------------------------------|------|------|--------|--------|--|
| BAR NUMBER | SIZE | TYPE | LENGTH | WEIGHT | |
| A1 | #5 | STR. | 19'-3" | 159 | |
| C1 | #3 | 1 | 3'-3" | 32 | |
| D1 | #3 | 3 | 4'-4" | 241 | |
| K1 | #5 | 2 | 5'-0" | 542 | |
| M1 | #4 | STR. | 3'-8" | 198 | |
| **S7 | #5 | STR. | 3'-8" | 38 | |
| S10 | #3 | STR. | 2'-10" | 1 | |
| S11 | #5 | 4 | 7'-0" | 29 | |
| S12 | #4 | STR. | 8'-0" | 27 | |
| Y1 | #5 | STR. | 3'-3" | 41 | |
| Z1 | #5 | 2 | 4'-5" | 46 | |

* NOTE: THE (4) STRANDS ALONG THE TOP FLANGE TO BE STRESSED TO 10,000 LBS. EACH.
** NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

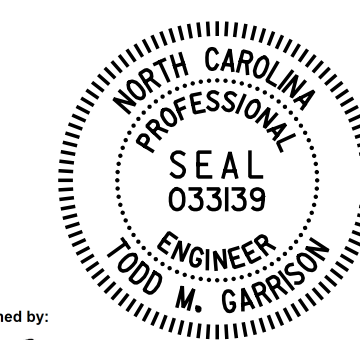


ALL BAR DIMENSIONS ARE OUT-TO-OUT

| QUANTITIES FOR ONE BEAM | | | |
|-------------------------|-------------------|--------------------|---------------------|
| | REINFORCING STEEL | 5,000 PSI CONCRETE | 0.6" Ø L.R. STRANDS |
| | LB. | C.Y. | No. |
| EXT. & INT. BEAM | 1,354 | 15.7 | 29 |

| BEAMS REQUIRED | | | |
|----------------|--------|------------|--------------|
| SPAN | NUMBER | LENGTH | TOTAL LENGTH |
| A | 16 | 70'-2 1/2" | 1123.33' |
| C | 16 | 70'-2 1/2" | 1123.33' |
| TOTAL | 32 | 70'-2 1/2" | 2246.67' |

PROJECT NO. I-5986B
JOHNSTON COUNTY
STATION: 1260+34.00 -L-
SHEET 2 OF 4



DocuSigned by:
Todd M. Garrison
4/21/2020

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
45" PRESTRESSED
CONCRETE
FLORIDA I-BEAM
SPANS A & C

| REVISIONS | | | | | |
|-----------|-----|-------|-----|-----|-------|
| NO. | BY: | DATE: | NO. | BY: | DATE: |
| 1 | | | 3 | | |
| 2 | | | 4 | | |

DRAWN BY: N. B. SPEAKS DATE: 6-10-19
CHECKED BY: J. M. GARRISON DATE: 6-17-19

SHEET NO.
SI-24
TOTAL SHEETS
57