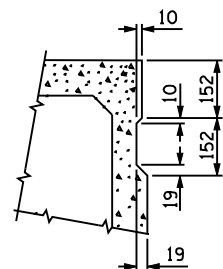


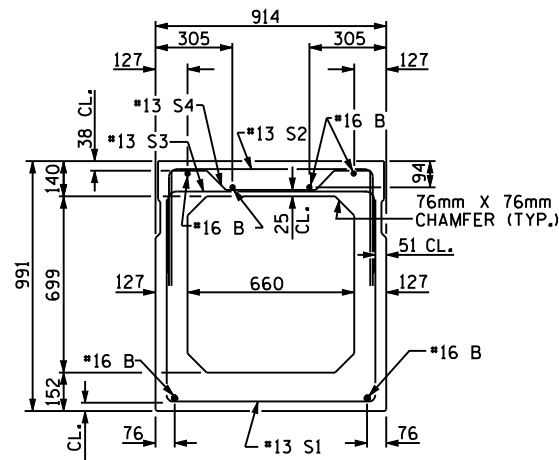
END ELEVATION

SHOWING PLACEMENT OF #16 & #13 "A" BARS AND LOCATION OF DOWEL HOLES. (INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION. STRAND LAYOUT NOT SHOWN.)



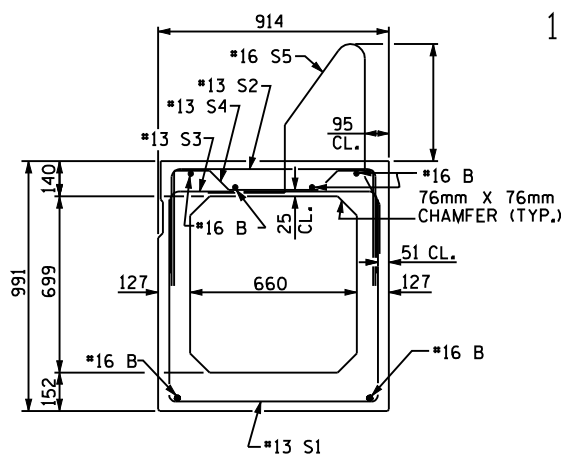
SHEAR KEY DETAIL

NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BOX BEAMS.



INTERIOR BOX BEAM SECTION

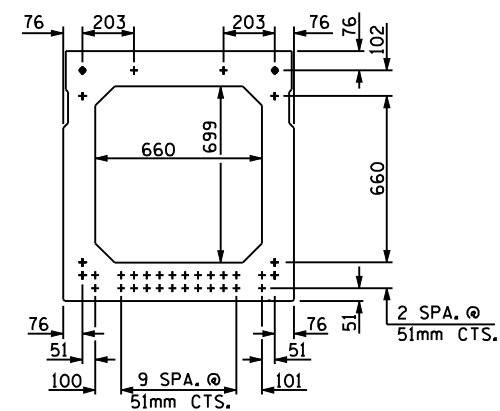
(STRAND LAYOUT NOT SHOWN)



EXTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)

15.24mm Ø LOW RELAXATION STRAND LAYOUT



TYPICAL STRAND LOCATION

(... STRANDS REQUIRED)

(INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION)

DEBONDING LEGEND

● FULLY BONDED STRANDS

| GRADE 270 STRANDS | |
|-----------------------------------|----------------|
| | 15.24mm Ø L.R. |
| AREA (mm ²) | 140.00 |
| ULTIMATE STRENGTH (KN PER STRAND) | 260.7 |
| APPLIED PRESTRESS (KN PER STRAND) | 195.5 |

CHAMFER DETAIL

SHOWING 150mm VOID CHAMFER

END VIEW

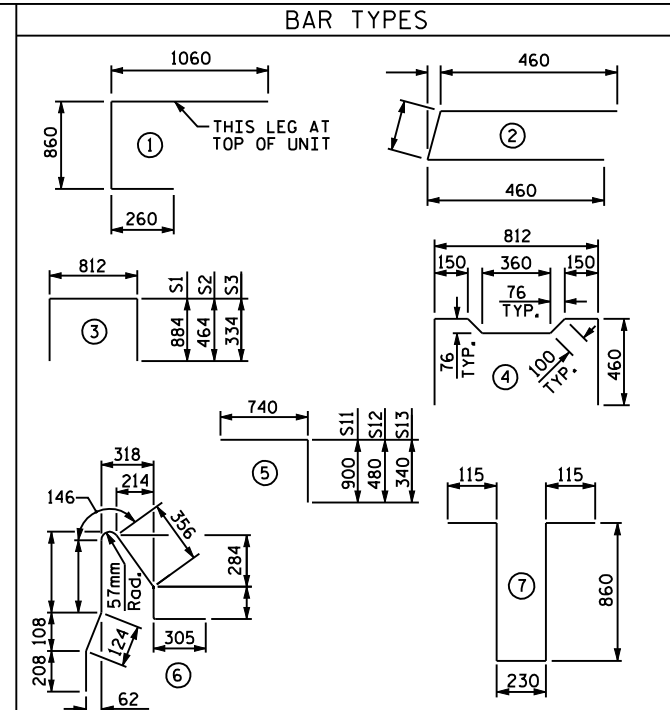
(SHOWING #13 "S" BARS IN END OF BEAM)

DETAIL "B"

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #16 S5 BARS. "B" BARS AND "A" BARS NOT SHOWN.

PLAN OF BOX BEAM

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #16 S5 BARS. FOR LOCATION OF DIAPHRAGMS, SEE PLAN OF SPANS. FOR REINFORCING STEEL IN DIAPHRAGMS, SEE DIAPHRAGM DETAILS.



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR ONE BOX BEAM SECTION

| BAR | NUMBER | SIZE | TYPE | EXTERIOR UNIT | | INTERIOR UNIT | |
|-----------------------------|--------|------|------|---------------|--------|---------------|--------|
| | | | | LENGTH | WEIGHT | LENGTH | WEIGHT |
| A1 | 10 | #16 | 1 | 2180 | 34 | 2180 | 34 |
| A2 | | #13 | 2 | | | | |
| B | | #16 | STR | | | | |
| K1 | | #13 | 7 | 2180 | | 2180 | |
| K2 | | #13 | STR | | | | |
| S1 | | #13 | 3 | 2580 | | 2580 | |
| S2 | | #13 | 3 | 1740 | | 1740 | |
| S3 | | #13 | 3 | 1480 | | 1480 | |
| S4 | | #13 | 4 | 1780 | | 1780 | |
| S11 | | #13 | 5 | 1640 | | 1640 | |
| S12 | | #13 | 5 | 1220 | | 1220 | |
| S13 | | #13 | 5 | 1080 | | 1080 | |
| * S5 | | #16 | 6 | | | -- | -- |
| REINFORCING STEEL | | | | kg | | kg | |
| * EPOXY COATED REINF. STEEL | | | | kg | | kg | |
| --- MPa CONCRETE | | | | CU. METERS | | CU. METERS | |
| 15.24mm Ø L.R. STRANDS | | | | No. | | No. | |

PROJECT NO. _____

_____ COUNTY

STATION: _____

SHEET _ OF _

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 914mm X 991mm
 PRESTRESSED CONCRETE
 BOX BEAM UNIT
 SPAN " _ "

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

| | |
|----------------------|---------------------|
| ASSEMBLED BY : _____ | DATE : _____ |
| CHECKED BY : _____ | DATE : _____ |
| DRAWN BY : TLA 5/05 | ADDED 7/11/05 |
| CHECKED BY : GM 6/05 | REV. 5/1/06R TLA/GM |

*****SYSTEM*****
 *****DCGN*****
 *****USER*****