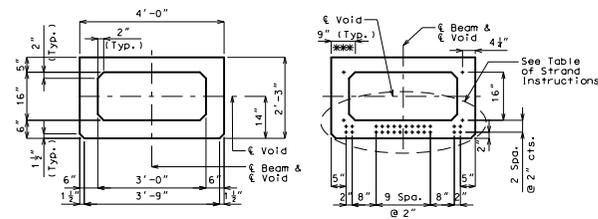


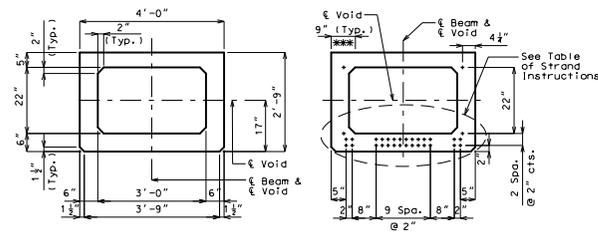
TABLE OF SECTIONS

23

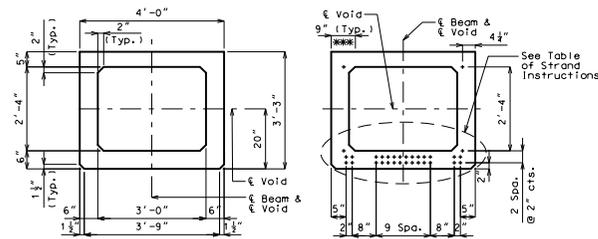
Use corner for copy point and upper left corner of border (Typical)



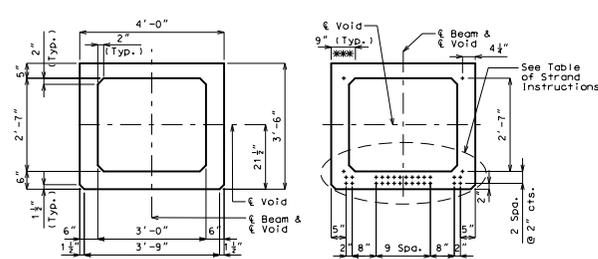
29



33



36



- 1 Insert appropriate shape from Table of Sections provided outside border.
- 2 Add (or delete) rows to (from) table by design based upon the design requirement for debonded strands. Debonded lengths shall be given by designer.
- 3 Shape U2 shall be changed when the box beam is skewed. Additional bar marks S5 and S6, Shape 19 are also required for a skewed box beam.
- 4 Lap splices shall be shown only when necessary (lengths greater than 60'-0").
- 5 3"Ø vent pipe shall be added when box beam is to be placed over water.
- 6 The dimension to the first C1 bar shall be from the end of the box beam. The first C1 bar should be placed between 1'-0" to 2'-6" past the last S2 bar to optimize center spacing of 3'-0".
- 7 S5 and S6 bars for skewed box beams shall be shown and annotated with an asterisk, referencing a note to be added, * Splay and cut to fit.
- 8 Nine inches is typically used for prestressed spread box beam and has been retained here. Greater than 9" may be used to lesson minimum steel requirement but factored composite resistance as estimated using shear friction must exceed factored interface shear load.

PSBXB01 Spread New: March 2014

DIMENSIONS
(+) Indicates prestressing strand.

Use XX strands with an initial prestress force of XXXX kips.

*** Beam top flange shall be steel troweled to a smooth finish for 9" at the edges, as shown. Apply two layers of 30-lb. roofing felt as a bond breaker to this region only excluding where joint filler is applied. The center portion shall be rough finished by scarifying the surface transversely with a wire brush, and no laitance shall remain on the surface.

BILL OF REINFORCING STEEL - EACH BEAM			
NO.	SHAPE	LENGTH	SHAPE
X 5 A1	X'-X"	20	SHAPE 20
X 4 A2	X'-X"	20	SHAPE 10 (S2)
X 5 B1	4'-7"	51	SHAPE 10 (S1)
X 4 C1	3'-7"	20	SHAPE 10 (U1)
X X S1	X'-X"	10	SHAPE 51 (B1)
X X S2	X'-X"	10	SHAPE 50 (S3)
X X S3	X'-X"	50	SHAPE 10 (U2)
X X U1	5'-3"	10	
X X U2	8'-10"	X	

Table of Strand Instructions

- ⊕ Denotes fully bonded strands
- ⊖ Cut and shop bend with 2'-0" projection. Cut any remaining bottom strands within 1" of end of beam.
- ⊞ Strands debonded for X'-X" from end of beam
- ⊠ Strands debonded for X'-X" from end of beam

*** At the contractor's option the location for bent-up strands may be varied from that shown. The total number of bent-up strands shall not be changed. One strand tie bar is required for each layer of bent-up strands except at end bents which require one bar on the bottom layer of strands only. No additional payment will be made if additional strand tie bars are required.

HALF ELEVATION OF BOX BEAM ALONG & BEAM
Exterior and interior box beams are the same, except for coil ties and coil inserts for slab drains. See Sheet No. X for spacing of U1 and U2 bars.

ELEVATION A-A (Strands not shown for clarity)
SECTION B-B (Strands not shown for clarity)
SECTION C-C (Strands not shown for clarity)

DETAILS OF SPREAD BOX BEAM SPANS (X-X) AND (X-X)

Note: This drawing is not to scale. Follow dimensions. Sheet No. X of X

General Notes

Concrete for prestressed beams shall be Class A-1 with $f'_c = 8,000$ psi and $f'_{ct} = 6,500$ psi.

Prestressing tendons shall be uncoated, seven-wire, low-relaxation strands, 0.6 inch diameter conforming to AASHTO M203, Grade 270. Prestressing members shall be in accordance with Sec 1029.

For Beam Camber Diagram, see Sheet No. .

For location of coil inserts at slab drains, see Sheet No. .

3/4"Ø drain holes shall be provided at each end of each void, and shall be kept open at all times.

Beams shall be kept upright at all times. Support shall be within 12 inches of the ends only.

Void filler shall be non-absorptive cellular polystyrene, according to ASTM C 578, designed to withstand the forces imposed upon them during fabrication without substantial deformation such as bulging, sagging, or collapsing. Corrugated void filler will not be allowed. The outside dimensions of void filler shall be as shown on the plans. When two or more sections of void filler are used to make up a required length, they shall be effectively taped or spliced together.

Beams shall be finished similarly in accordance with Sec 1029, except as noted.

HALF ELEVATION OF BOX BEAM ALONG & BEAM
Exterior and interior box beams are the same, except for coil ties and coil inserts for slab drains. See Sheet No. X for spacing of U1 and U2 bars.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 DATE: 4/4/2014
 ROUTE: XX STATE: MO
 DISTRICT: BR COUNTY: XX
 PROJECT NO.: PSBXB 1
 BRIDGE NO.:
 SHEET NO.: XX
 COUNTY: XX
 JOB NO.: XX
 CONTRACT NO.:
 "THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-455-4400 FAX 1-888-275-6681