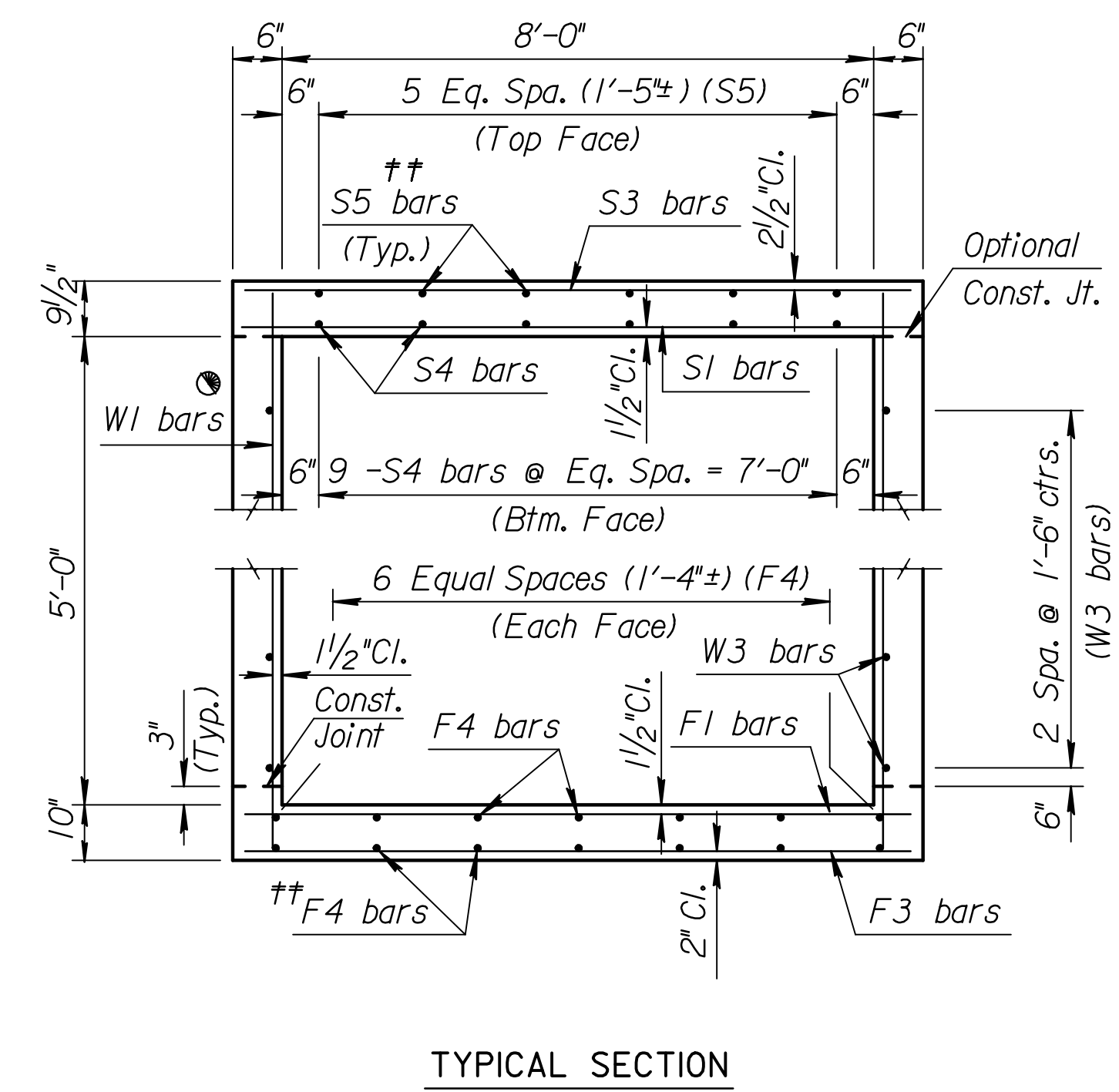
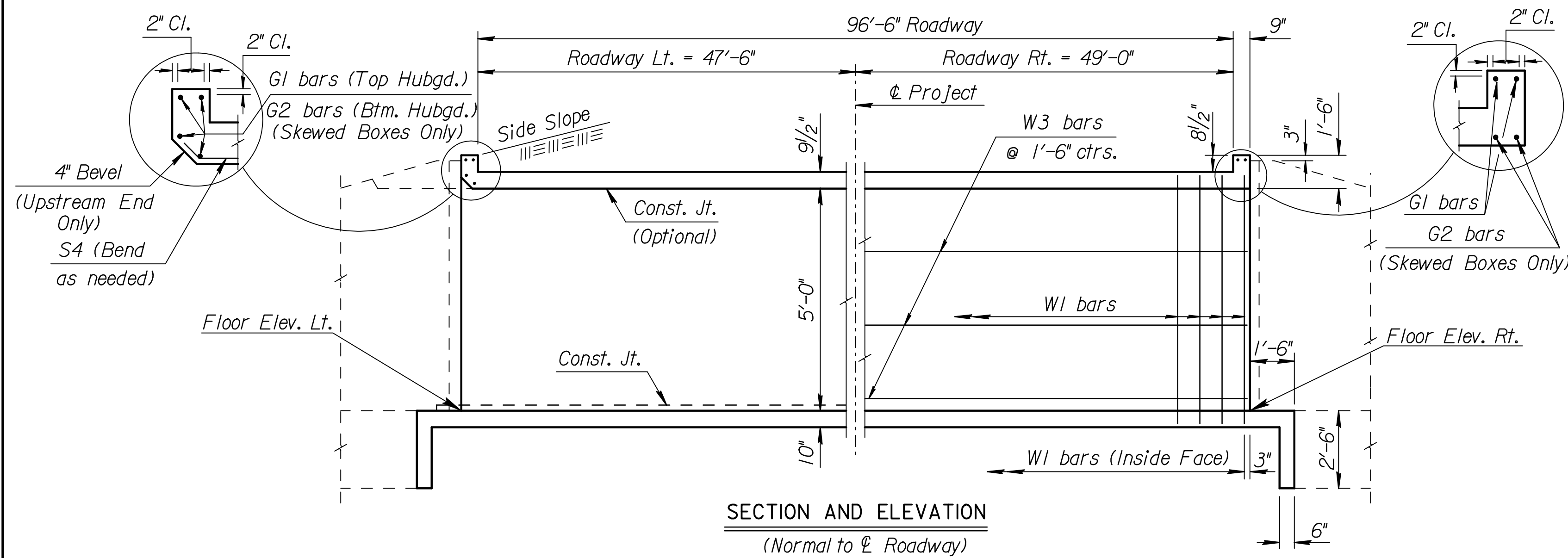
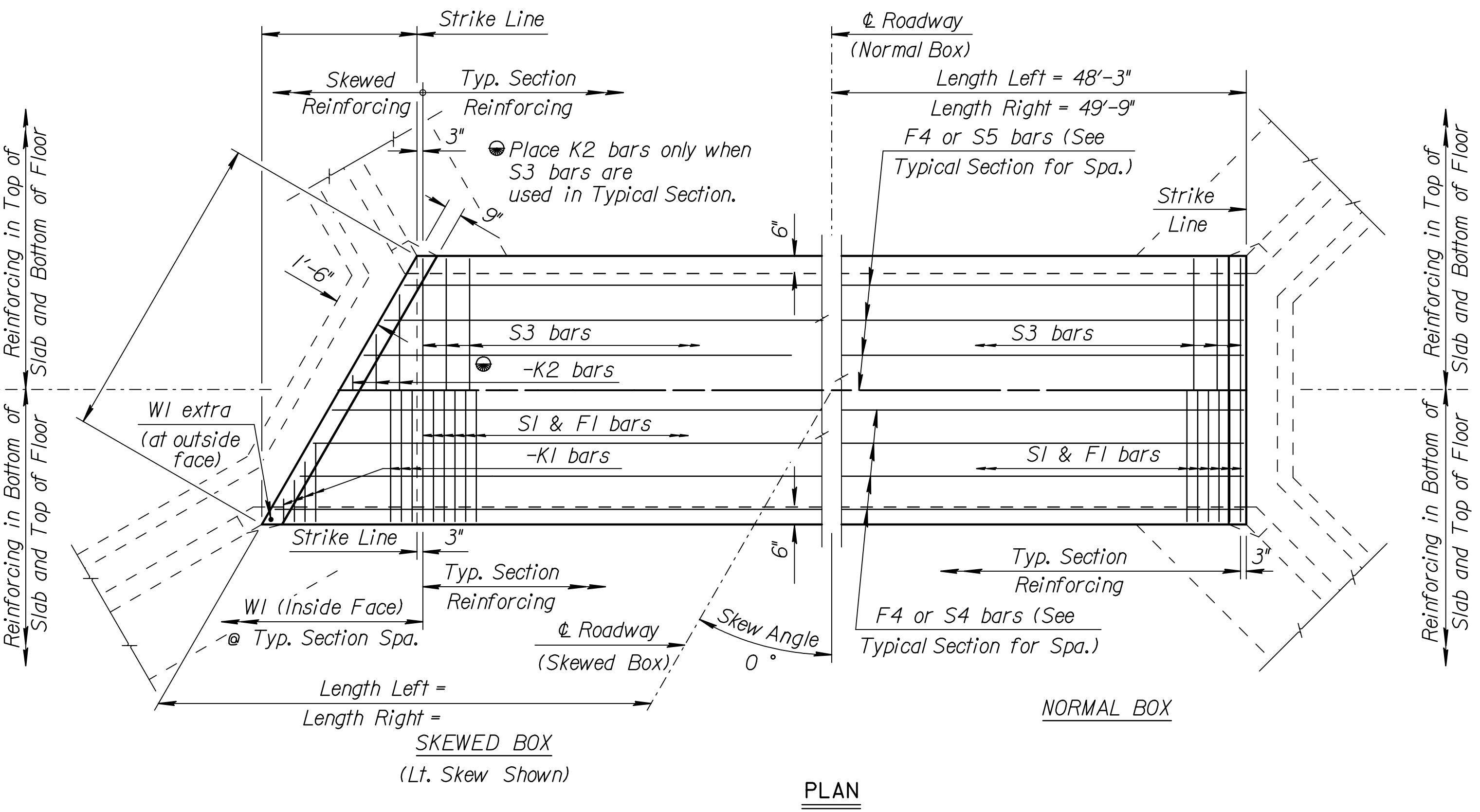


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|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | 472-84636 | 2008 | 88 | 282 |



Details are shown for complete cast-in-place construction. Only pre-cast barrel sections will be accepted at this location. See BRO31 for pre-cast and cast-in-place limit requirements. See payment note this sheet.



- See RCB Auxillary Details for Optional Splice. Note: S3 bars omitted unless grade box or slab thickness is greater than or equal to 12".
- Note: F3 bars omitted unless floor thickness is greater than or equal to 12".
- ** Omit S5 bars when S3 bars are omitted and omit the bottom layer of F4 bars when F3 bars are omitted.

GENERAL NOTES

LOADING: HS20-44 AASHTO Specifications, 1983 Edition.
UNIT STRESSES: Grade 4.0 Concrete; f'c = 4,000 p.s.i. Reinforcing Steel; fy = 60,000 p.s.i.
FILL HEIGHT: Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and shall include the surfacing.
CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a 3/4 inch triangular moulding. Where Grade 4.0 Concrete (AE) is specified, it shall be placed in the top slab above the Construction Joint.
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. All dimensions relative to reinforcing steel shall be to centerline of bar unless otherwise noted.
EXCAVATION: Excavation for culverts less than bridge length shall not be paid for directly but shall be subsidiary to Grade 4.0 Concrete. Excavation for RCB Bridges shall be paid for as Class III Excavation.
SEAL COURSE: A Seal Course may be required by the Engineer. The Seal Course shall be unreinforced Concrete (Commercial Grade) to a minimum depth of 3 inches or as determined by the Engineer. Concrete for the seal course shall be paid for at the unit price set for Concrete for Seal Course.
FOUNDATION STABILIZATION: The Foundation Stabilization quantity has been calculated to the limits shown on the "RCB Auxillary Details" sheet. The depth may be increased by the Engineer. The Contractor may underrun Foundation Stabilization under the barrel if founded on firm material and with the Engineer's approval. Use Foundation Stabilization on all wingwalls unless founded on rock or granular material.
QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when their construction is required by the plans. Payment for additional quantities that result from including seal course and/or floating apron, as a change in original plans, shall be made at the Unit Price bid for the various items involved.
GRANULAR BACKFILL (WINGWALLS): Special backfill procedures may be required at the direction of the Engineer. See Auxillary Details Sheet.
STRIKE LINE: Wingwalls and that portion of the RCB outside the Strike Line shall be constructed level. Footing for wingwalls shall be constructed with the culvert floor. See wingwall detail sheet.
PAYMENT: The 8 ft x 5 ft RCB shall bid per Linear Foot and shall include all labor, material, excavation, concrete, reinforcing steel, seal course, and all other incidentals necessary to complete the work. Quantities shown are for information only.

| | |
|----|-------|
| #4 | 1'-4" |
| #5 | 1'-8" |
| #6 | 2'-0" |

| | |
|-------------------------------------|------------|
| Concrete (Grade 4.0) | 88.5 C.Y. |
| Concrete (Grade 4.0(AE)) | 0.0 C.Y. |
| Reinforcing Steel (Gr. 60) | 10630 Lbs. |
| Reinforcing Steel (Epoxy Coated) | 0 Lbs. |
| Class III Excavation | — C.Y. |
| Foundation Stabilization | 31 C.Y. |
| Concrete for Seal Course (Set) | 1 C.Y. |
| Granular Backfill (Wingwalls) (Set) | 1 C.Y. |

* For Information Only

| CULVERT SUMMARY | | | | | | | | | | | | | | |
|-----------------|-----------------|-----------------|-----------------|------|------------------|-----------------|-----------------|-----------------------|--------------|--------------|-------|------|------|-------|
| Floor Elev. Lt. | Floor Elev. Rt. | Crown Gr. Elev. | Design Fill Ht. | Skew | Concrete | | | Reinf. Steel (Gr. 60) | | | | | | |
| | | | | | Barrel (Cu.Yds.) | Wings (Cu.Yds.) | Total (Cu.Yds.) | Barrel (Lbs.) | Wings (Lbs.) | Total (Lbs.) | | | | |
| 1364.40 | 1364.00 | 1371.71 | 0 | 0 | FLARED | FLARED | NO | YES | 71.57 | 16.94 | 88.51 | 9306 | 1326 | 10632 |

| F1 | | F3 | | | | F4 | | | | S1 | | | | S3 | | | | S4 | | S5 | | | | | | | | | | | | |
|------|------|-----|--------|------|------|-----|--------|------|------|-----|--------|------|------|--------|--------|------|------|-------|--------|------|-----|--------|------|-------|--------|-------|---|----|--------|---|----|--------|
| Size | Spa. | No. | Length | Size | Spa. | No. | Length | Size | Spa. | No. | Length | Size | Spa. | No. | Length | Size | Spa. | No. | Length | Size | No. | Length | Size | No. | Length | | | | | | | |
| 6 | 5/2" | 2/4 | 8'-8" | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 4 | 2/1 | 33'-6" | 6 | 5/2" | 2/4 | 8'-8" | N/A | N/A | N/A | N/A | 4 | 1'-6" | 66 | 8'-8" | 5 | 18 | 49'-8" | 4 | 18 | 33'-6" |

| NO. | DATE | REVISIONS | BY | APP'D |
|---|------|-----------|----|-------|
| KANSAS DEPARTMENT OF TRANSPORTATION S+g. I39+62.00 SINGLE 8 ft x 5 ft RCB | | | | |

Plotted By: unfiled
 File: I:\2001\016\RCB\016-RCB-Sta 139+62\KDOT V81.dgn
 Plot Date: 8/29/2008