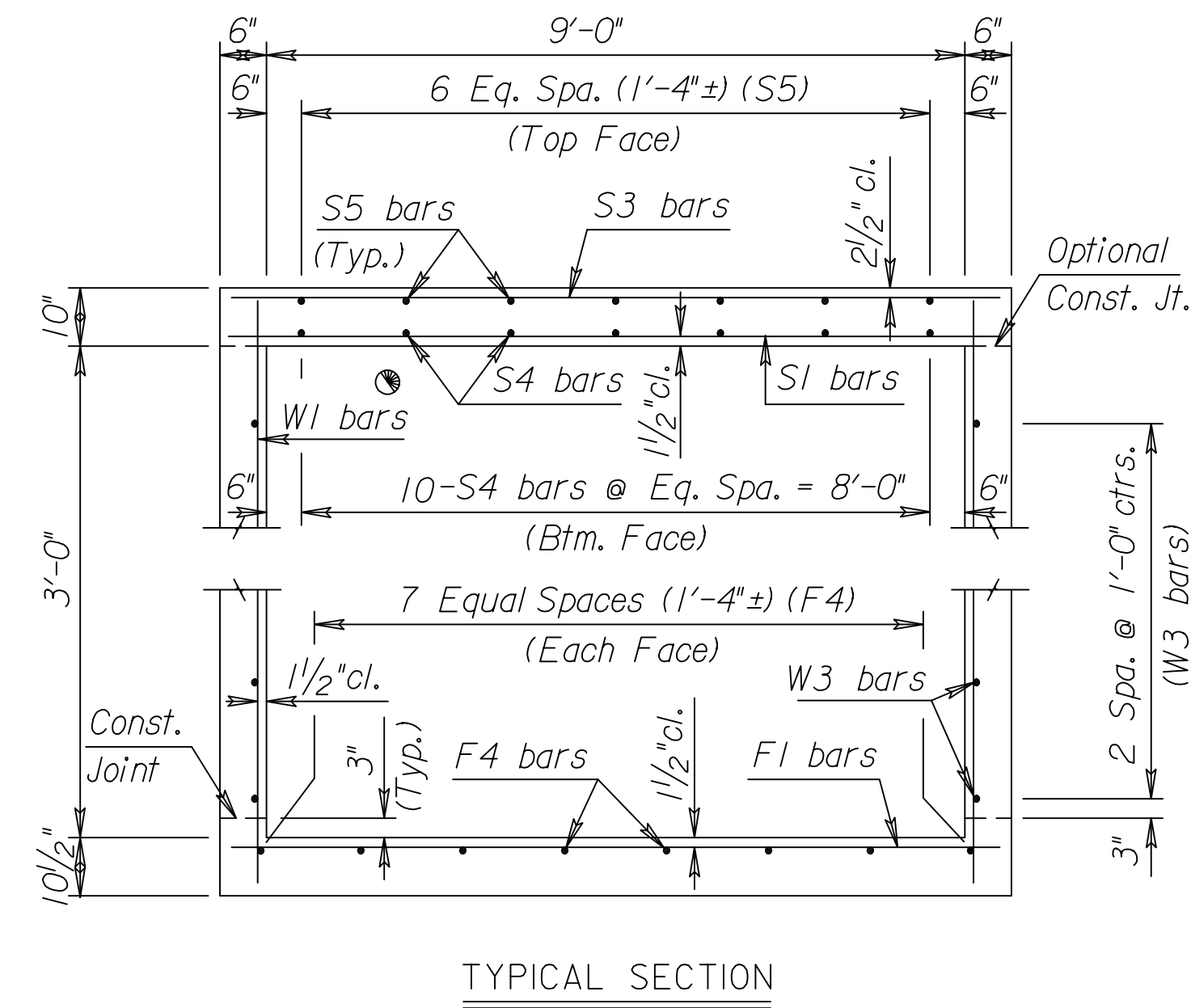
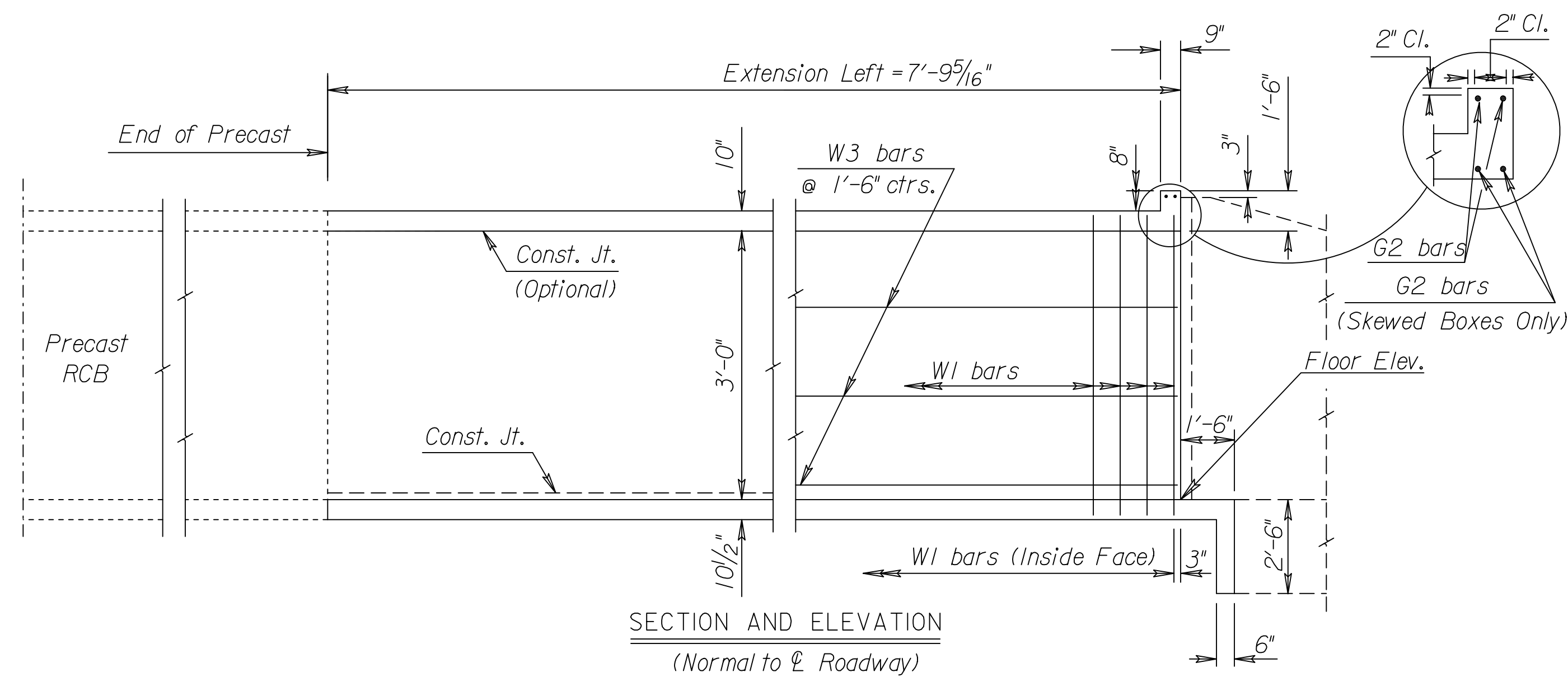
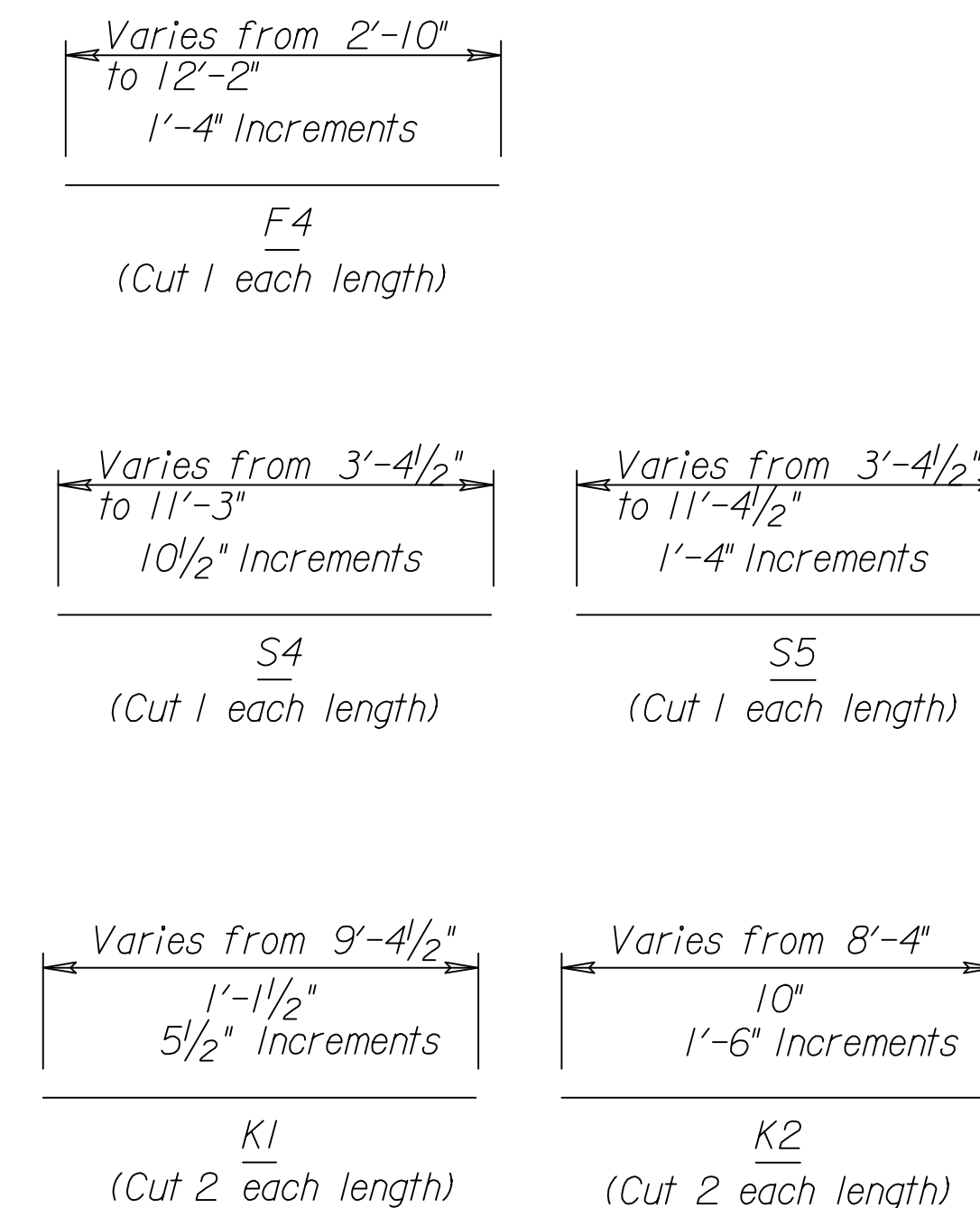
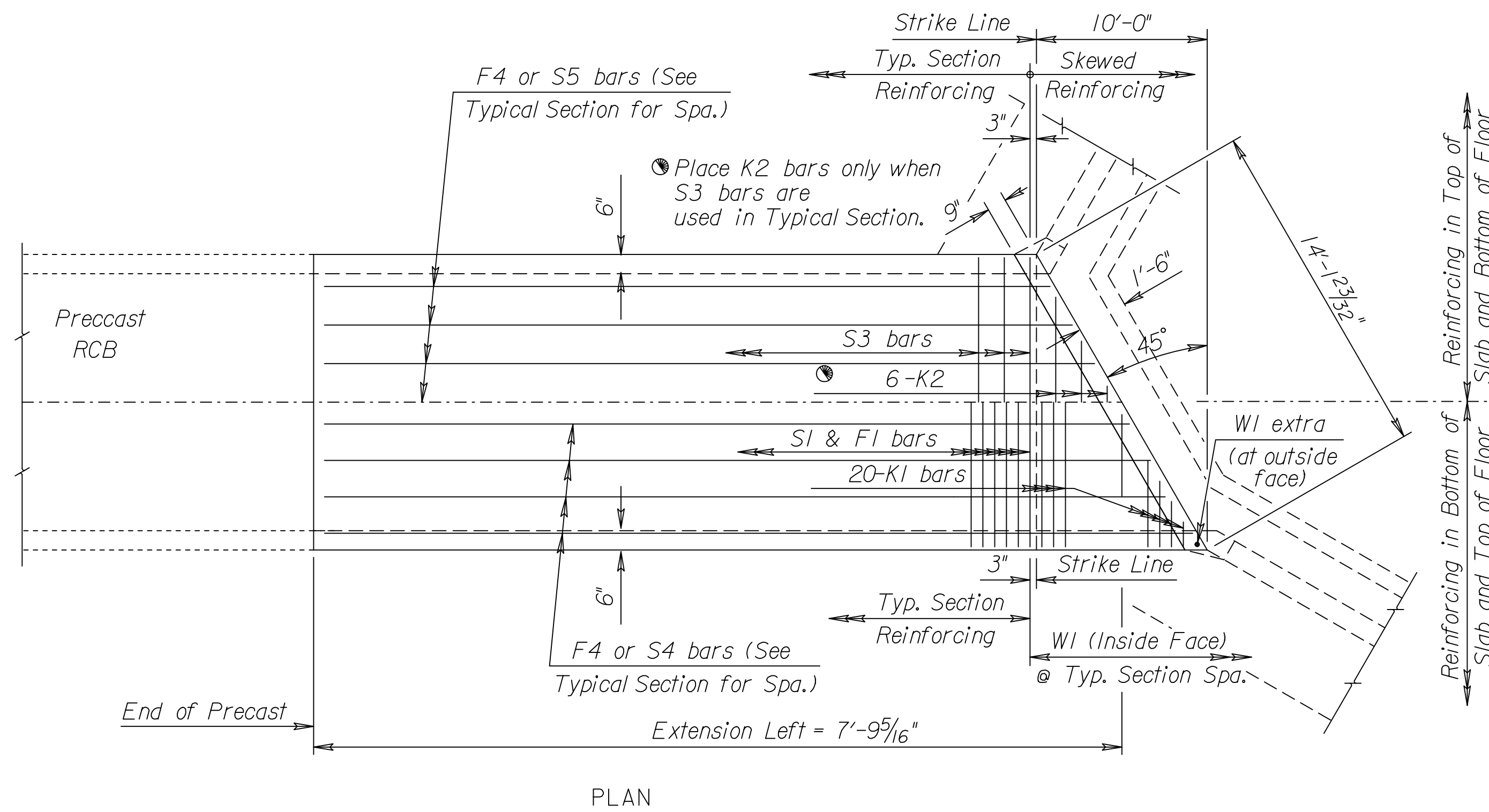


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84692	2013	81	193



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:
 See Standard No. RD 080 for additional details.
 Note: Use only cast-in-place construction at this location.



BENDING DIAGRAM
 All Dimensions are out to out of bars.

GENERAL NOTES
LOADING: HS20-44 AASHTO Specifications, 1983 Edition.
UNIT STRESSES: Grade 4.0 Concrete; $f'c = 4,000$ p.s.i.
 Reinforcing Steel; $f_y = 60,000$ 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. All steel shall be epoxy coated, with exception to the precast sections and welded wire fabric.
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 shall be constructed below the R.C.B. as shown in the Plans. The Seal Course below Precast Sections shall consist of 6" of crushed rock conforming to ASTM C-33, Gradation No. 67, and shall meet the requirements for Portland Cement Concrete Pavement Coarse Aggregate, Section P-501. Cast-in-Place Sections will also require the same seal course as the precast sections.
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.
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.

Ext. Lt.	Floor Elev.	Crown Gr. Elev.	Design Fill Ht.	Skew LT	Wings	Scour Apron	Soil Saver	Concrete			Reinf. Steel (Gr. 60)		
								Barrel (Cu.Yds.)	Wings (Cu.Yds.)	Total (Cu.Yds.)	Barrel (Lbs.)	Wings (Lbs.)	Total (Lbs.)
Ext.Lt.	1314.04	1321.79	0	45	FLARED	YES	NO	11.85	7.26	19.11	670	409	1079

BAR SCHEDULE																					
*See Bending Diagram																					
F1						F4			S1			S3			S4			S5			
Size	Spa.	No.	Length	Size	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length	
Ext.Lt.	6	5 1/2"	6	9'-8"	4	8	*	6	5 1/2"	6	9'-8"	4	1'-6"	3	9'-8"	5	10	*	4	7	*
K1						K2			W1			W3L			W3S			G2			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length	Size	No.	Length	
Ext.Lt.	6	5 1/2"	20	*	4	1'-6"	6	*	4	9"	21	4'-5"	4	3	12'-5"	4	3	2'-5"	5	4	13'-9"

**For Information Only

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

SUMMARY OF QUANTITIES	
Concrete (Grade 4.0)	19.1 C.Y.
Reinforcing Steel (Gr. 60)	1080 Lbs.

* Cast-in-place values included are for Section A and B as noted on Sheet No. 80.

SECTION A

NO.	DATE	REVISIONS	BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION SWS Sta. 100+00 SINGLE 9 ft x 3 ft RCB EXT. LT.(45*SKEW LT.)				
BR 1.9.4 P		Sedgwick Co.		
DESIGNED	APP'D	QUANTITIES	CADD	
DESIGN CK.	DETAIL CK.	QUAN. CK.	CADD CK.	

Plotted By: srb
 Plot Location:
 File: I:\2008\08207\Bridges\Final\08207 - 9x3 skew 45 left RCB (Box).dgn
 Plot Date: 8/19/2013