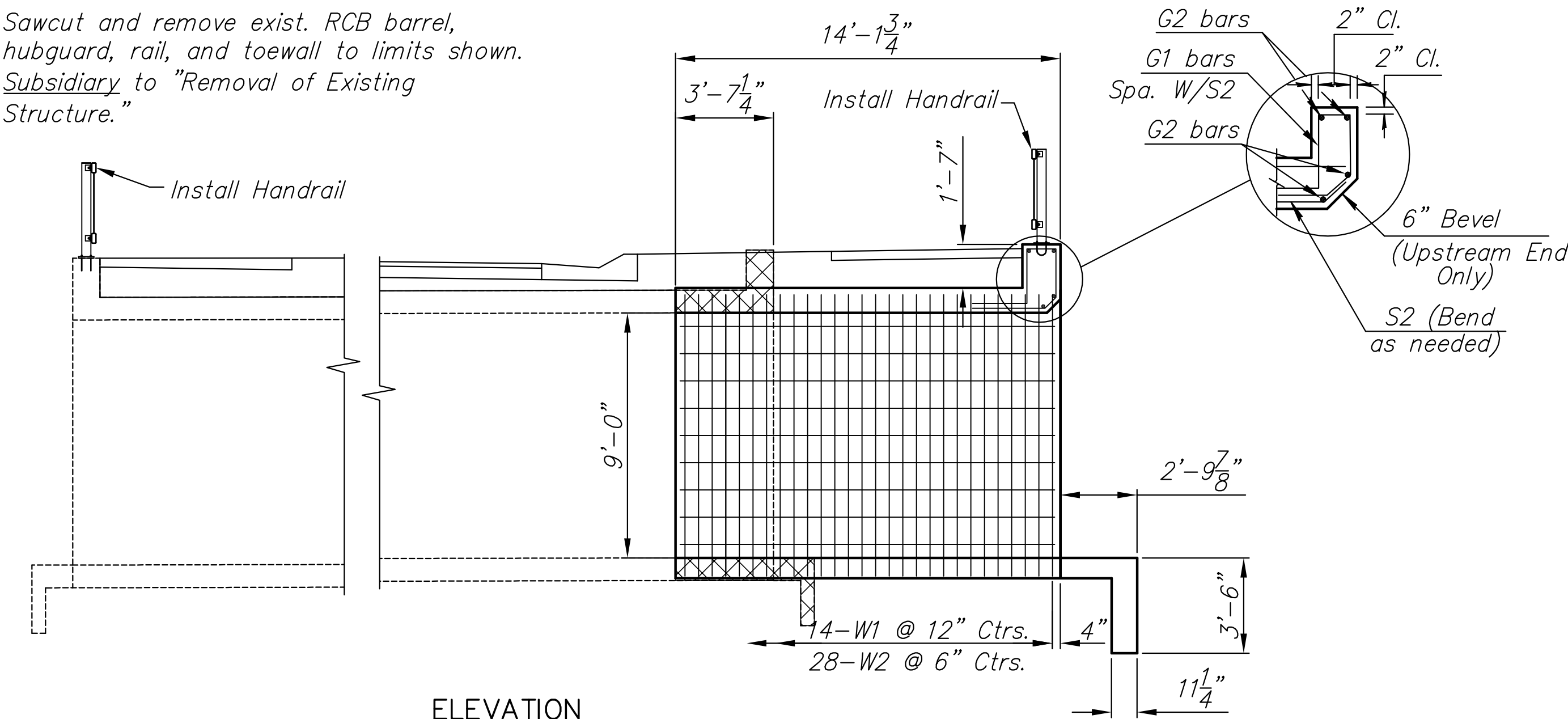
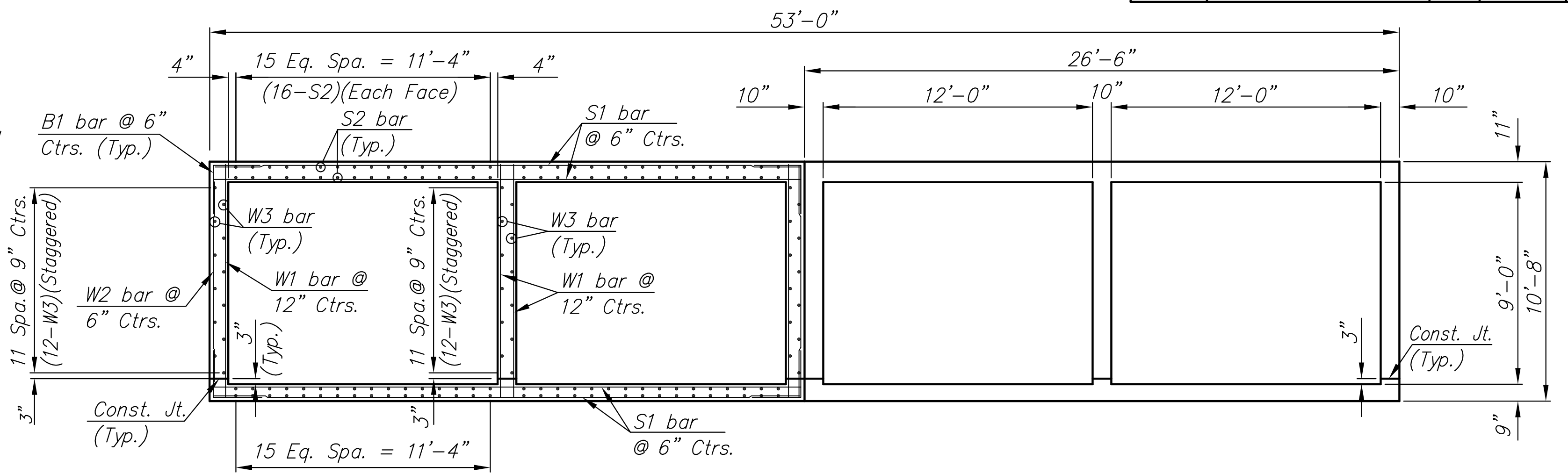


Sawcut and remove exist. RCB barrel, hubguard, rail, and toewall to limits shown. Subsidiary to "Removal of Existing Structure."



ELEVATION
(Measured along centerline of RCB)



SHOWING REINFORCING **SHOWING DIMENSIONS**

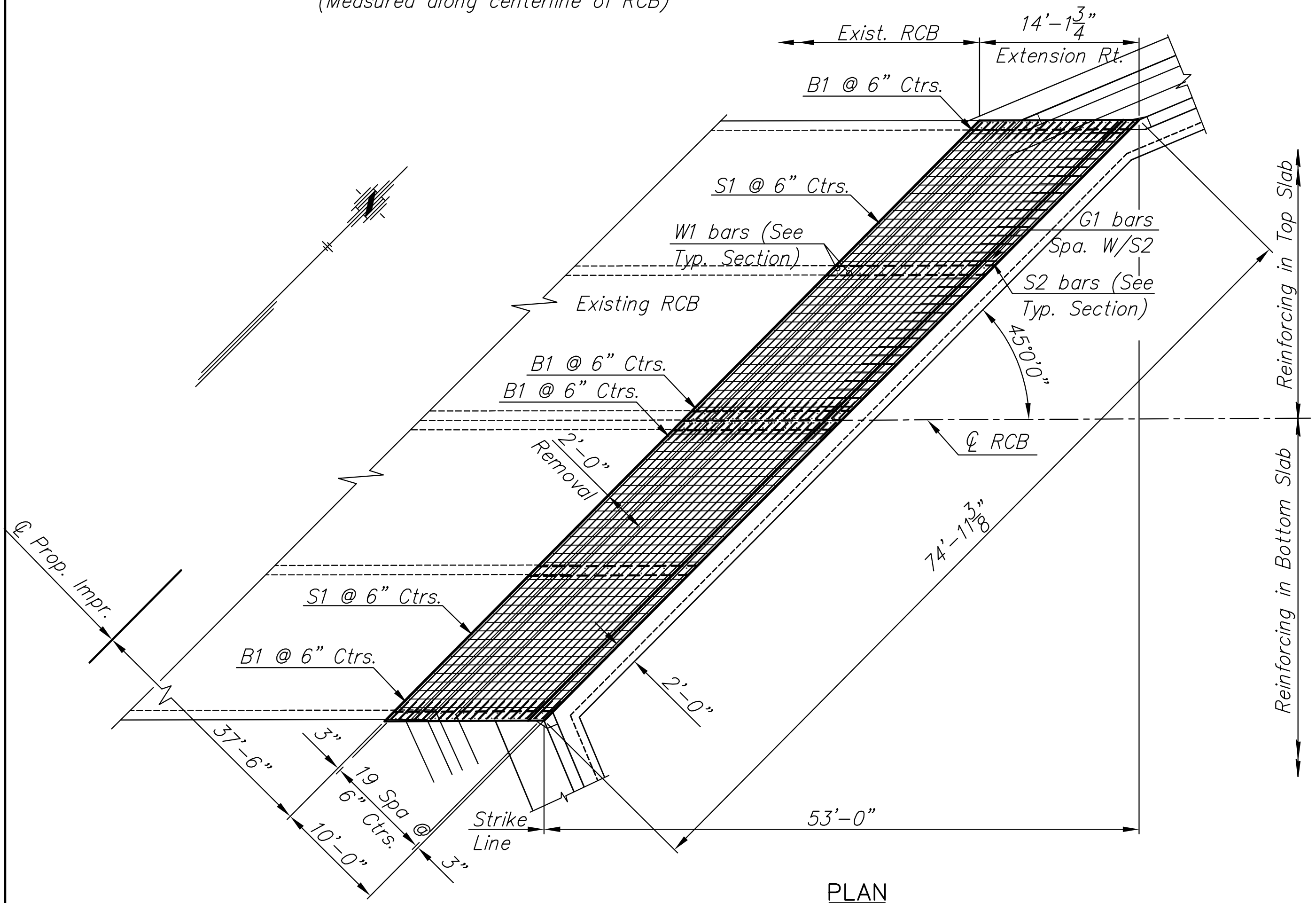
TYPICAL SECTION
(Shown perpendicular to centerline of RCB)

Note: Use only cast-in-place construction at this location.

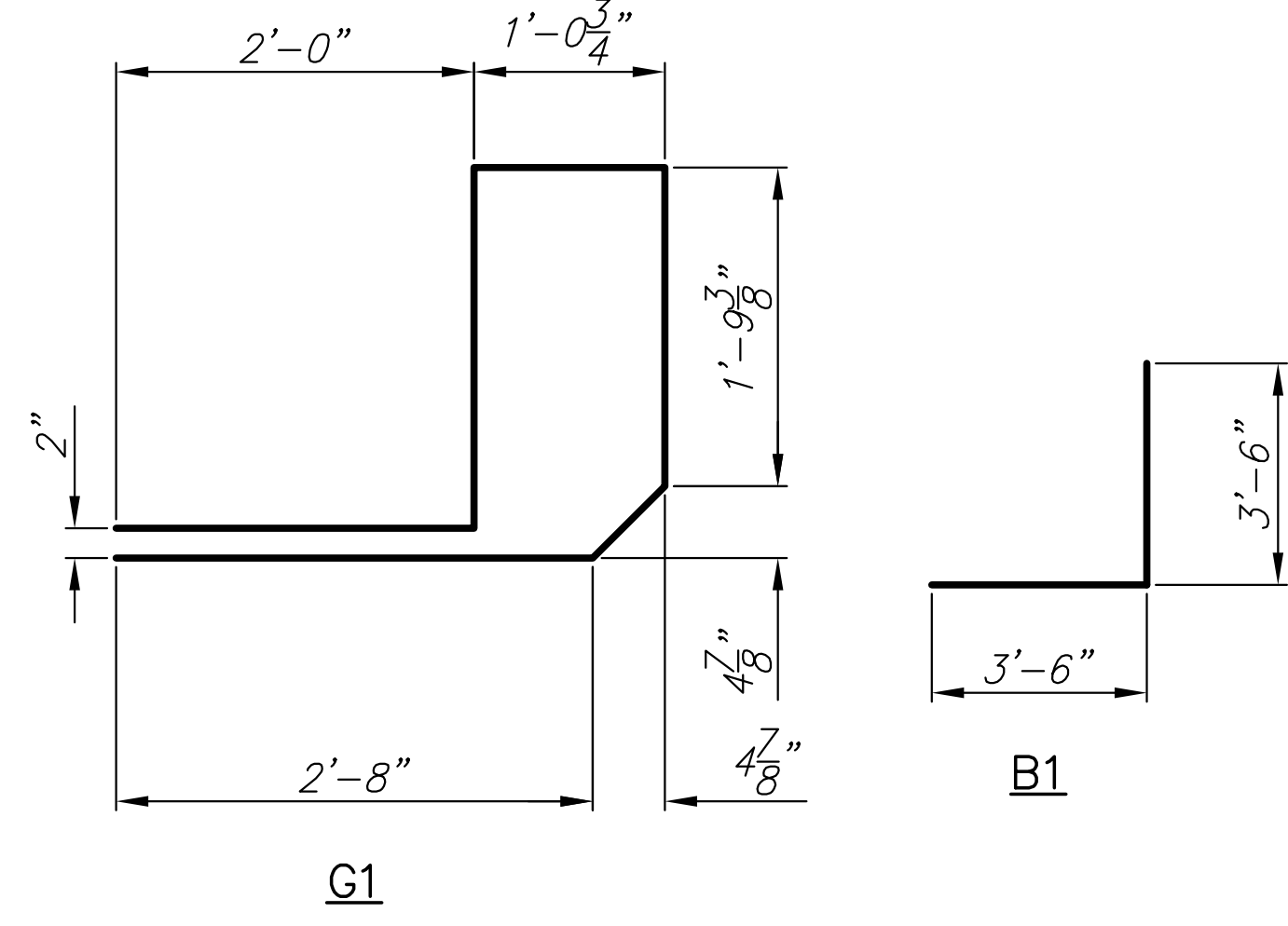
Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

GENERAL NOTES

- LOADING:** HS20-44 AASHTO Specifications, 17th 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.
- 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:** All Excavation for RCB widening shall be Subsidiary to "Grade 4.0 Concrete".
- FOUNDATION STABILIZATION:** Foundation stabilization shall be required under the box, wingwalls and aprons in accordance with the dimensions shown in the details. Foundation stabilization shall consist of 6" thickness of crushed rock conforming to ASTM C-33, Gradation No. 67, and shall meet the requirements for Portland Cement Concrete Pavement Course Aggregate, Section 406.2 of the City of Wichita Standard Specifications. Foundation stabilization shall be Subsidiary to "Grade 4.0 Concrete" and shall include all necessary excavation.
- QUANTITIES:** Pavement will be based on the quantities shown in the culvert summary. These quantities will be the Total Compensation for all work associated with RCB widening.
- GRANULAR BACKFILL (WINGWALLS):** Special backfill procedures are required at the direction of the Engineer. See Auxiliary 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.



PLAN



BENDING DIAGRAM

All Dimensions are out to out of bars.

For Design Only

* See Bending Diagram

Ext.Rt.	Flow Line Elev.	Crown Gr. Elev.	Design Fill Ht.	Skew Lt.	Wings	Concrete			Reinf. Steel (Gr. 60)		
						Barrel (Cu.Yds.)	Wings (Cu.Yds.)	Total (Cu.Yds.)	Barrel (Lbs.)	Wings (Lbs.)	Total (Lbs.)
						128.13	139.52	2	45'	FLARED	71.77

Ext.Rt.	BAR SCHEDULE																														
	B1 *				S1				S2				W1				W2				W3				G1 *				G2		
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length	Size	No.	Length	Size	No.	Length	
#6	6"	160	7'-0"	#6	6"	160	37'-0"	#4	256	13'-8"	#5	12"	112	10'-4"	#4	6"	112	10'-4"	#4	72	13'-8"	#4	64	10'-1 1/4"	#8	8	37'-0"				

SUMMARY OF QUANTITIES		
Concrete (Grade 4.0)	109.50	C.Y.
Reinforcing Steel (Gr. 60)	20560	Lbs.
Handrail (Steel)	240.00	L.F.

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 KANSAS DEPARTMENT OF TRANSPORTATION
 STA. 6+52.98
2 -DOUBLE 12'x9' RCB
14'-1 3/4" EXT. RT. (45° SKEW LT.)
 PROJECT NO. 87N-0357-01 SEDGWICK CO.
M K E C ENGINEERING CONSULTANTS, INC.
 WICHITA, KANSAS

DESIGNED BY: JRA	CHECKED BY: JRA
DRAWN BY: DPG	DATE: 7-1-08

SHEET 75 OF 185