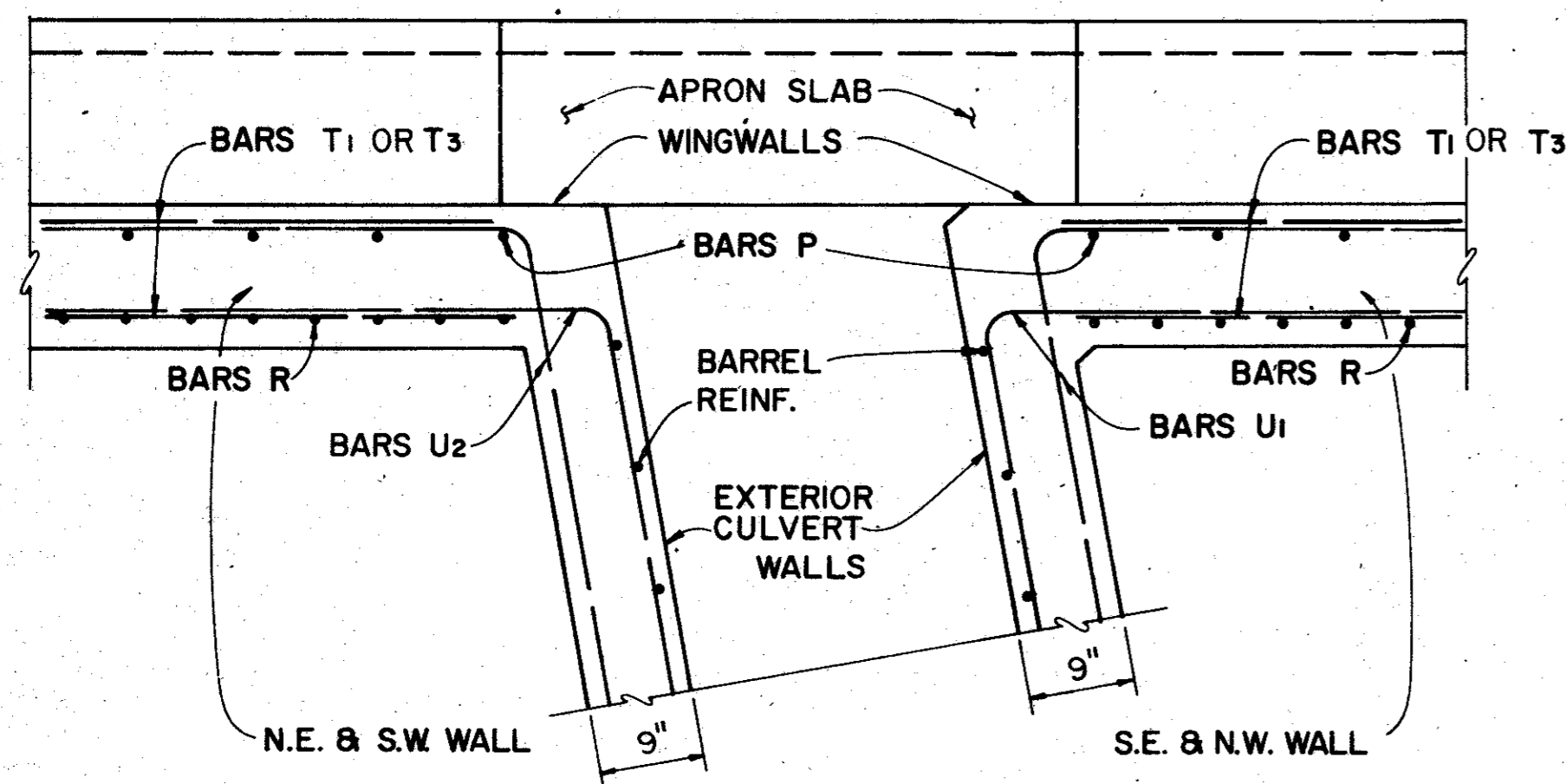
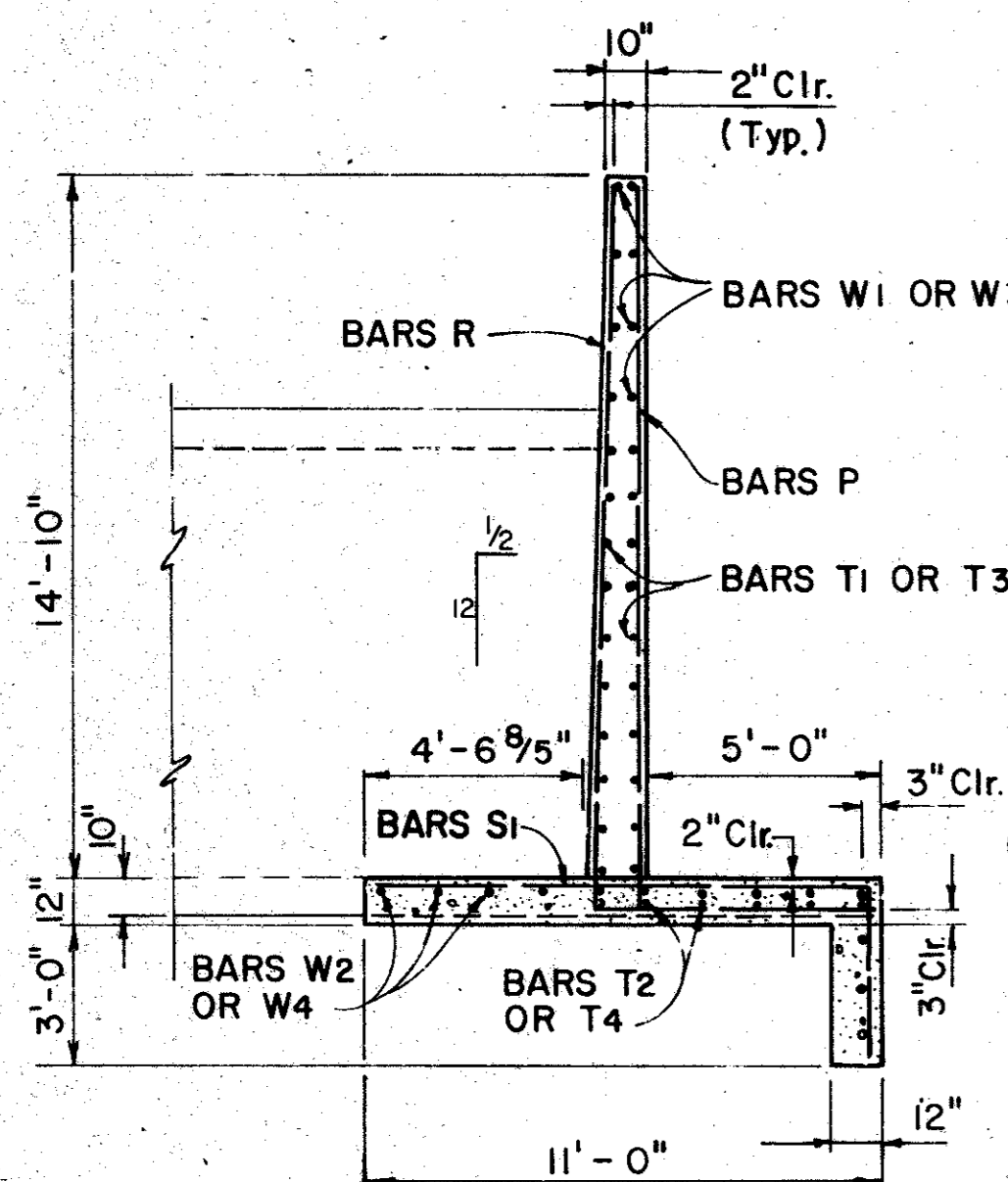


PLAN VIEW OF WINGWALLS



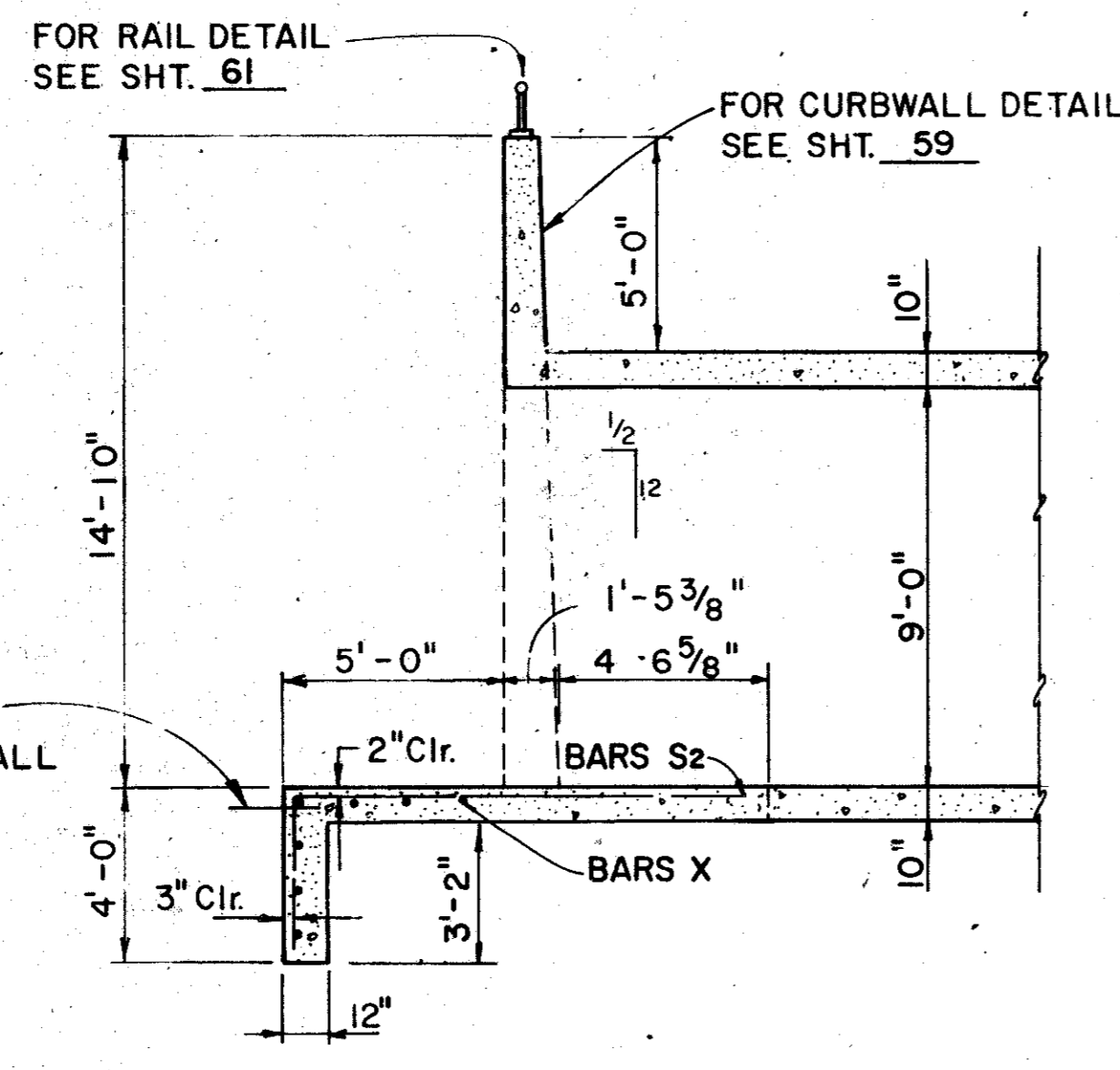
SECTION C-C

NTS



SECTION B-B

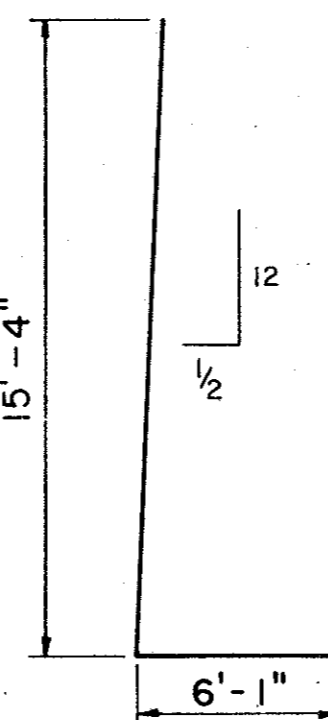
SCALE: 1/4" = 1'-0"



SECTION A-A

APRON DETAIL

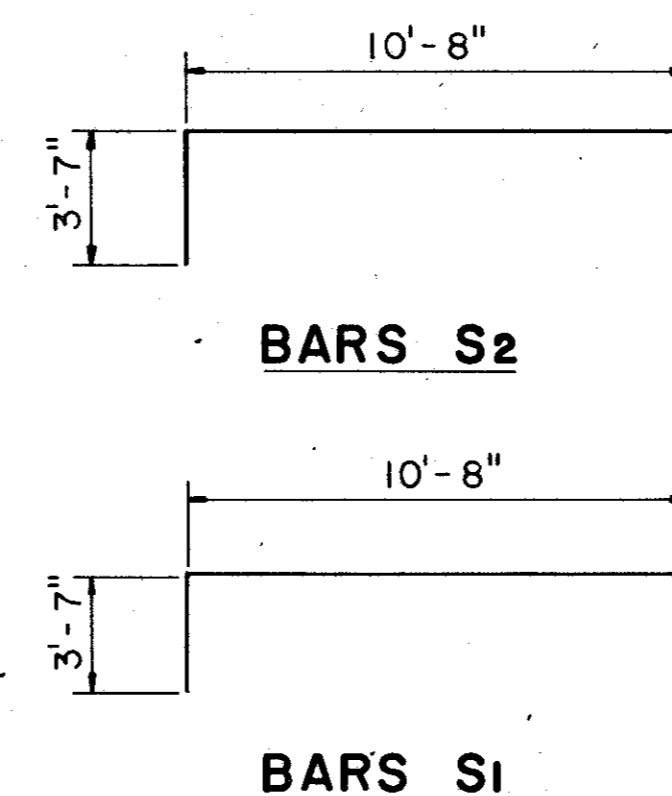
SCALE: 1/4" = 1'-0"



BARS R

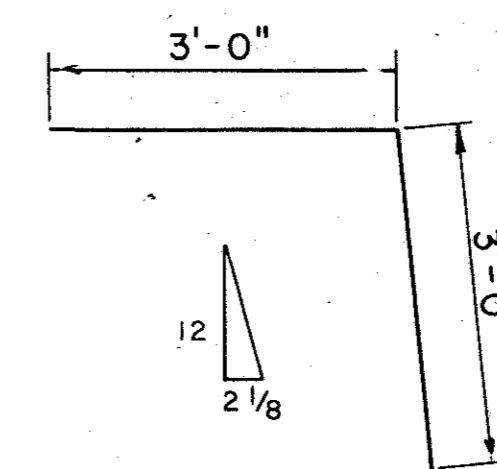
HALF ELEVATIONS

SCALE: 1/4" = 1'-0"

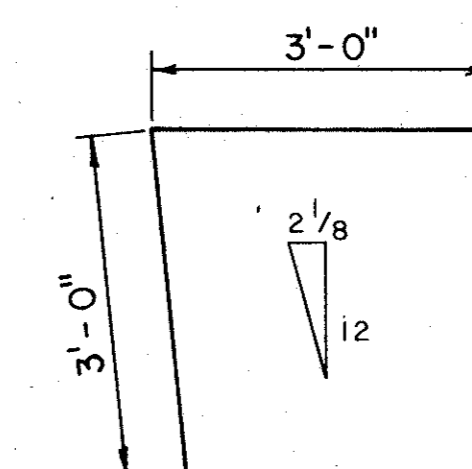


BARS S2

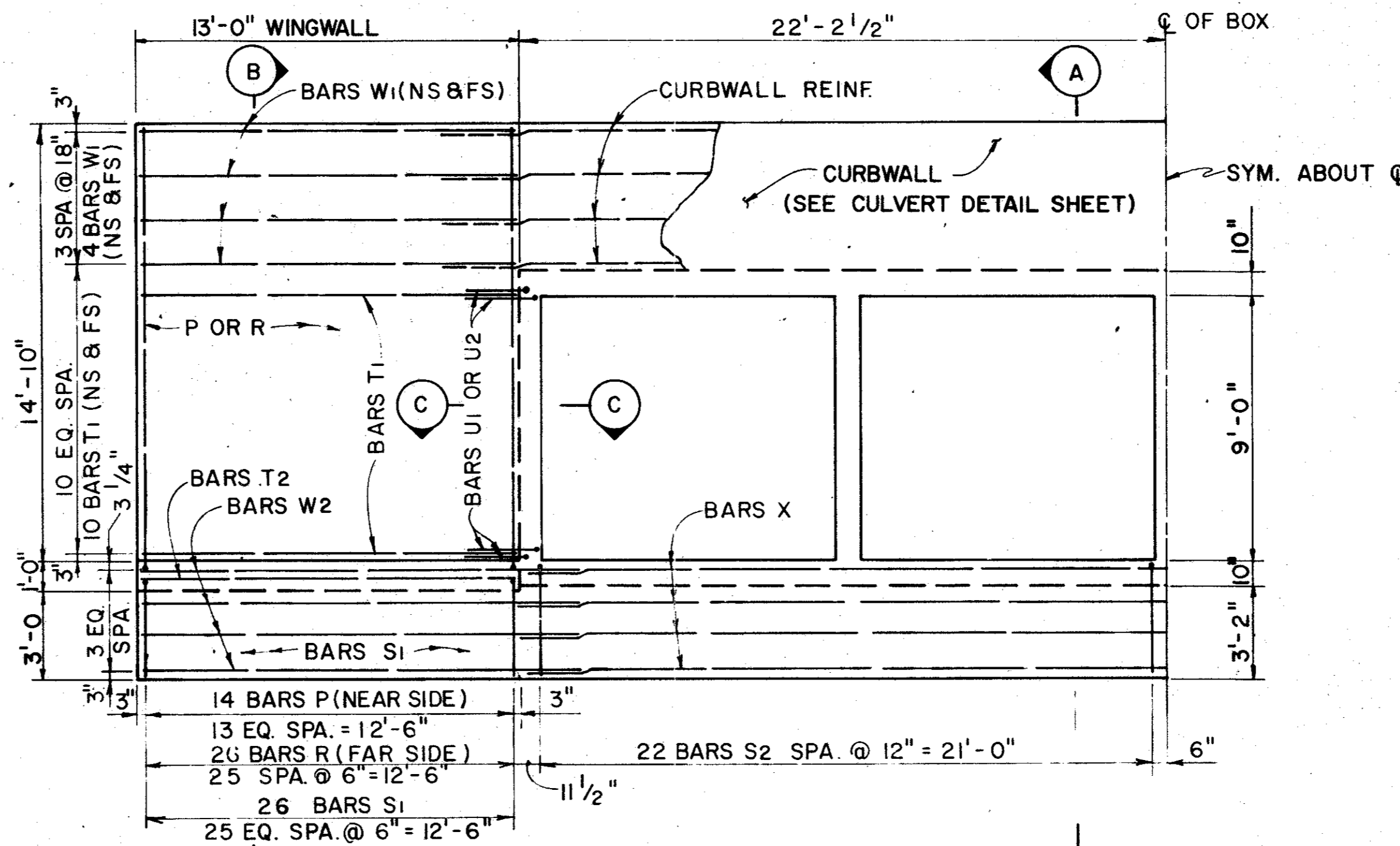
BARS S1



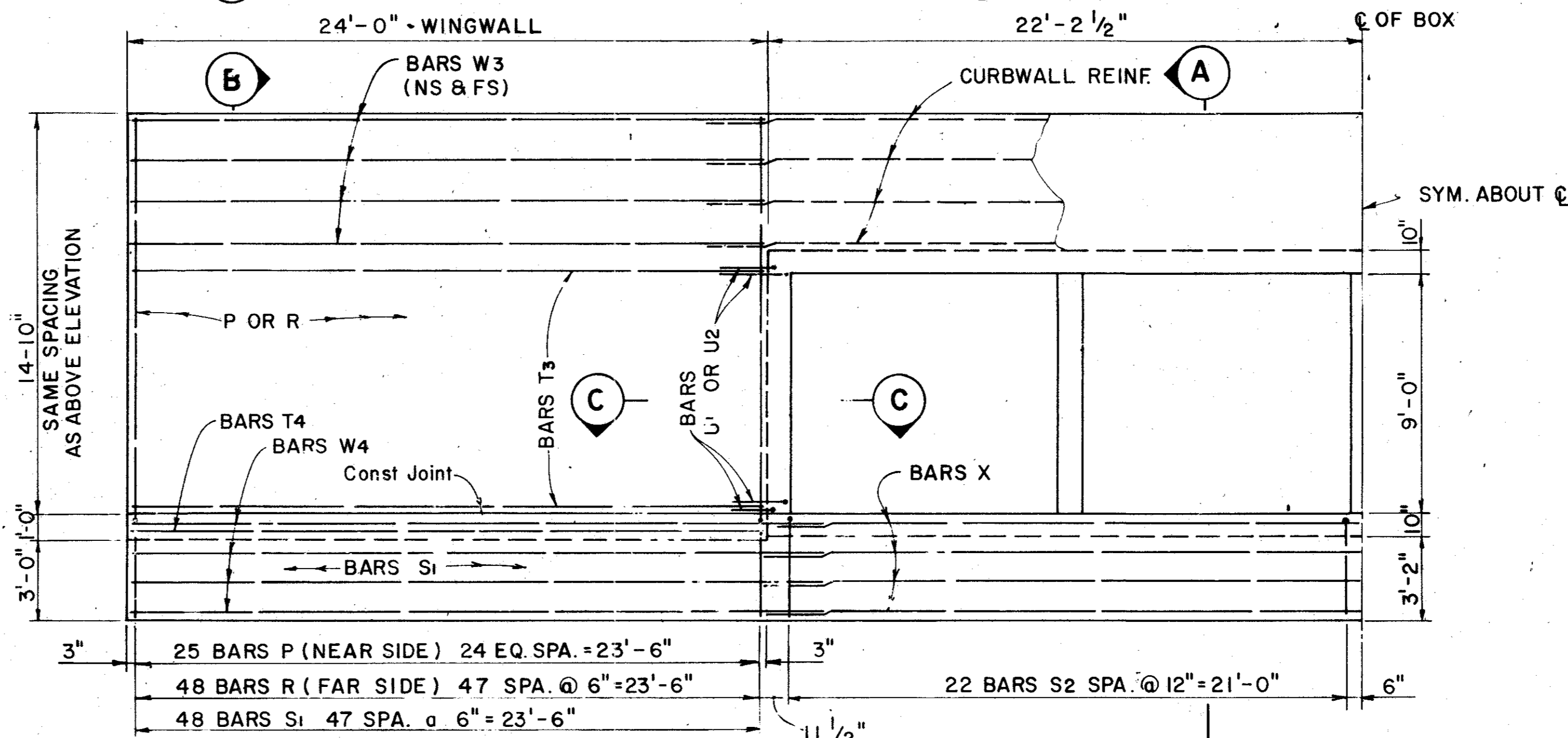
BARS U2



BARS U1



WEST WALL



EAST WALL

HALF ELEVATIONS

SCALE: 1/4" = 1'-0"

BILL OF REINFORCING STEEL					
BAR	NO.	SIZE	SPACING	LENGTH	WEIGHT
P	78	# 4	SHOWN	15'-6"	808
R	148	# 7	6"	21'-5"	6504
S1	148	# 7	6"	14'-3"	4327
S2	88	# 4	12"	14'-3"	838
T1	40	# 4	SHOWN	12'-8"	339
T3	40	# 4	SHOWN	23'-8"	632
T4	12	# 4	SHOWN	23'-8"	190
U1	40	# 5	12"	6'-0"	250
U2	40	# 5	12"	6'-0"	250
W1	16	# 4	18"	12'-8"	135
W2	26	# 4	SHOWN	13'-10"	240
W3	16	# 4	18"	23'-8"	253
W4	26	# 4	SHOWN	24'-10"	431
X	14	# 4	SHOWN	44'-0"	411
V	38	# 5	18"	2'-6"	99
T2	12	# 4	SHOWN	12'-8"	102
					15,809

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
*CL "A" CONCRETE (WINGWALL)	C.Y.	108.8
REINFORCING STEEL	L.B.	13,151

INCLUDES APRON SLAB.

GENERAL NOTES:

END CULVERT BOTTOM SECTION, WINGWALL FOOTINGS, AND APRON SLAB WITH TOE WALL SHALL BE PLACED IN ONE OPERATION.

ALL REINFORCING STEEL SHALL BE GRADE 60. HORIZONTAL EARTH PRESSURE WAS ASSUMED TO BE 50<sup>7</sup>sf EQUIVALENT LIQUID PRESSURE.

CONCRETE SHALL BE CLASS "A" 3000 psi 28 DAYS.

DESIGN LOADING H2O OR HS20-44 IN ACCORDANCE WITH AASHTO 1977 STANDARD AND INTERUM SPECIFICATIONS.

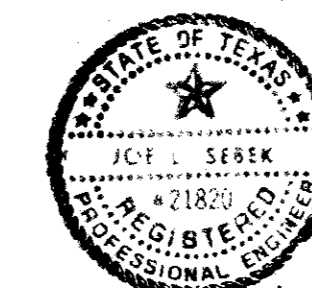
SHEET 5 OF 6

NO.	DATE	REVISION	APPROV.
4			
3			
2			
1			

CITIES OF ADDISON AND FARMERS BRANCH, TEXAS  
4-SPAN 10' x 9' R.C. BOX CULVERT HEADWALL DETAILS

Turner Collie & Braden Inc.  
CONSULTING ENGINEERS  
TEXAS AUSTIN DALLAS EL PASO HOUSTON PORT ARTHUR  
COLORADO DENVER GRAND JUNCTION

Unit: GALTIONE Scale: AS NOTED Date: FEBRUARY, 1982  
Designed: JS Checked: WNL Job No: 6042-010 Contract  
Drawn: WW Approved: Sheet 60 of 66



Joe J. Szek