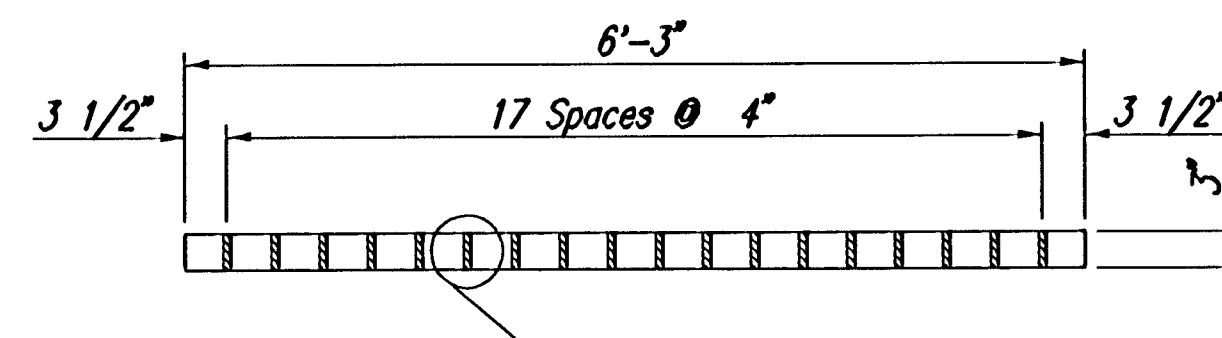
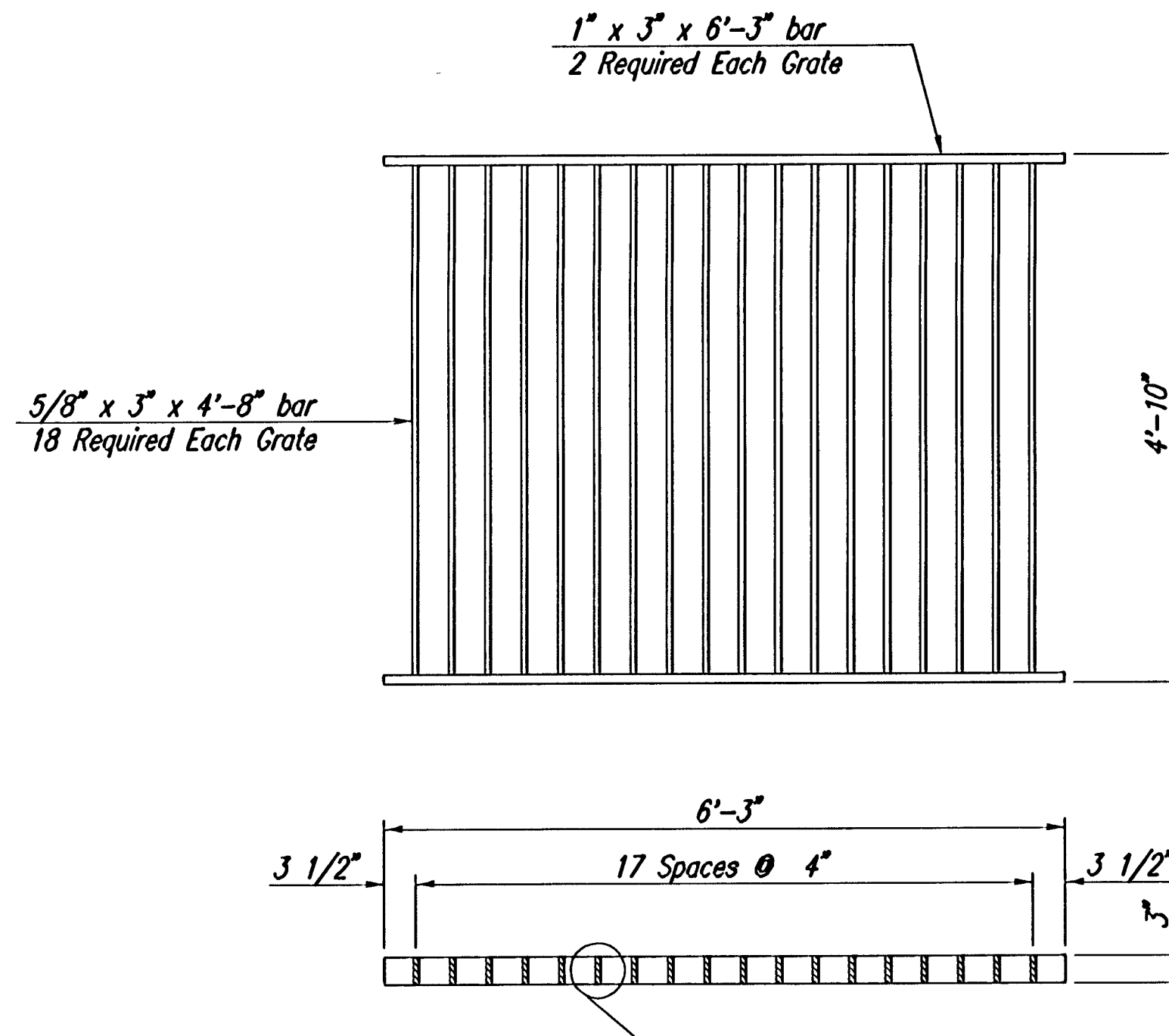
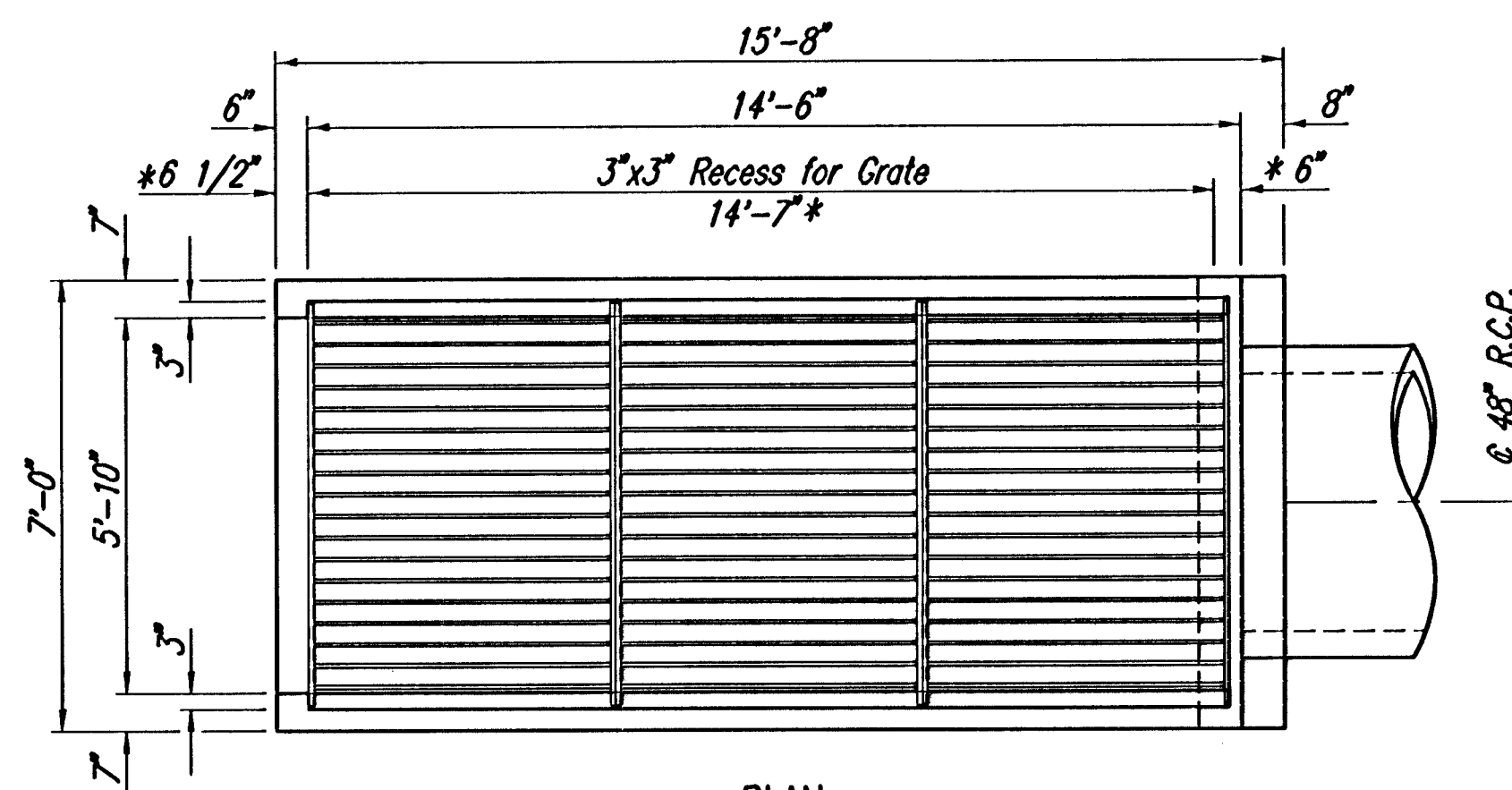
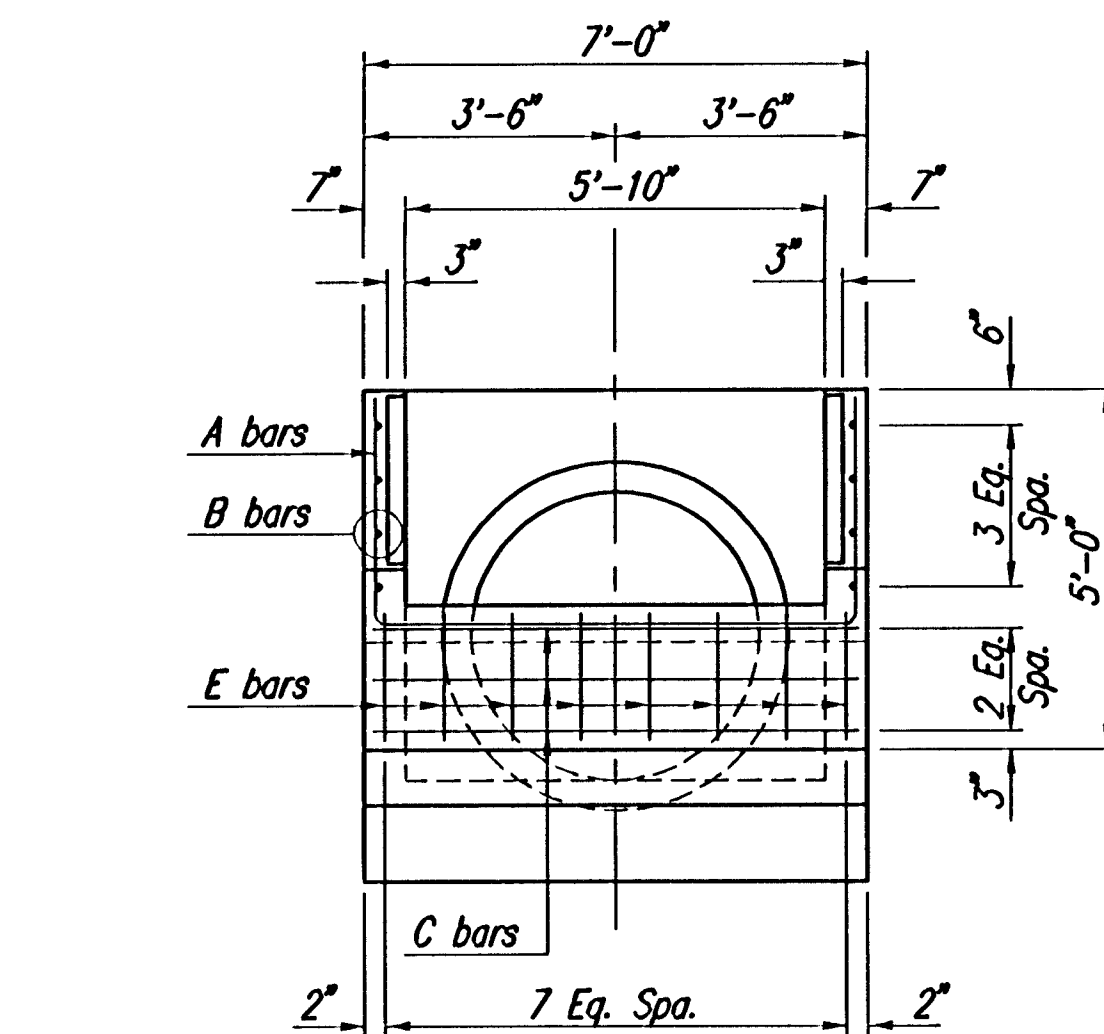




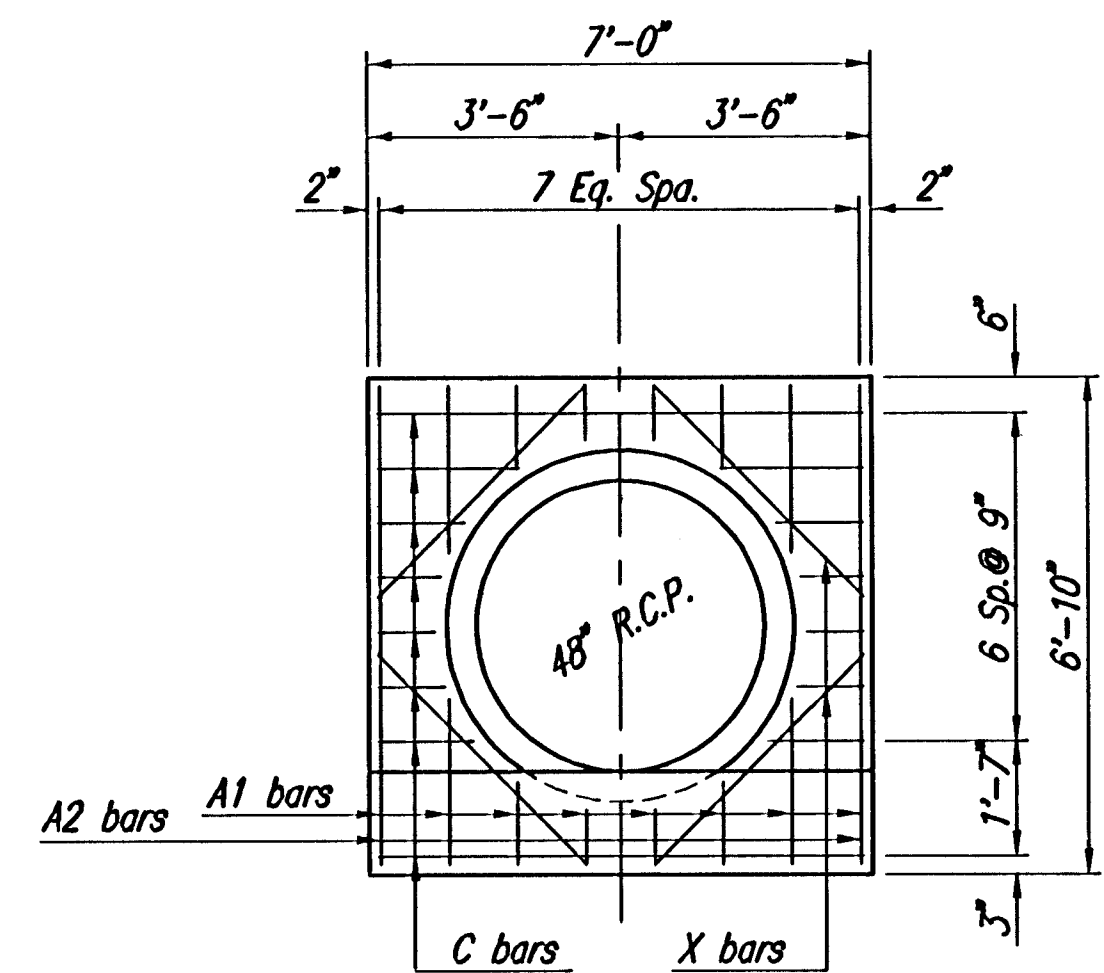
WELDED STRUCTURAL STEEL GRATE
Weight 663 Lbs. Each
(3 Required)



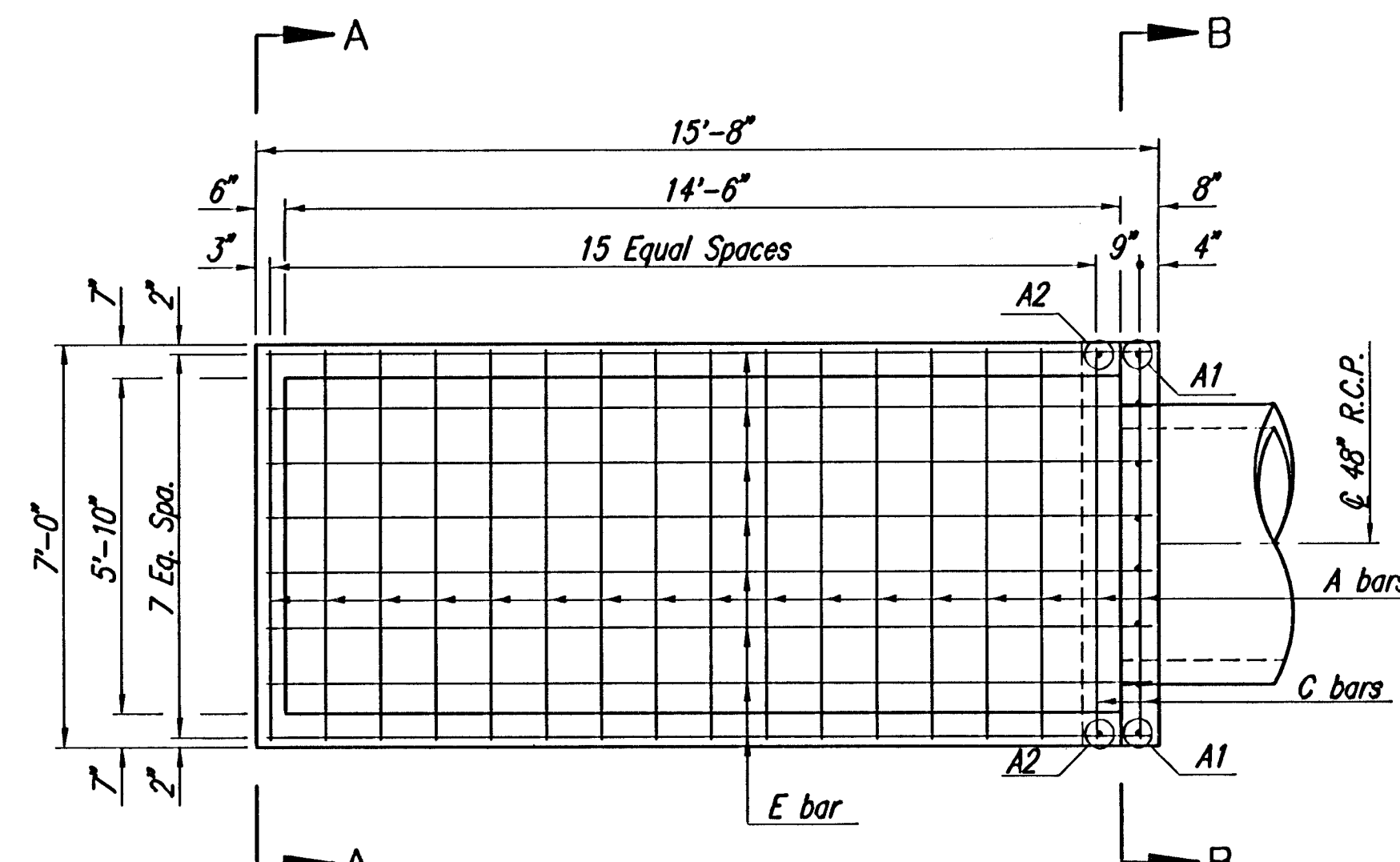
PLAN
*Along 6:1 slope



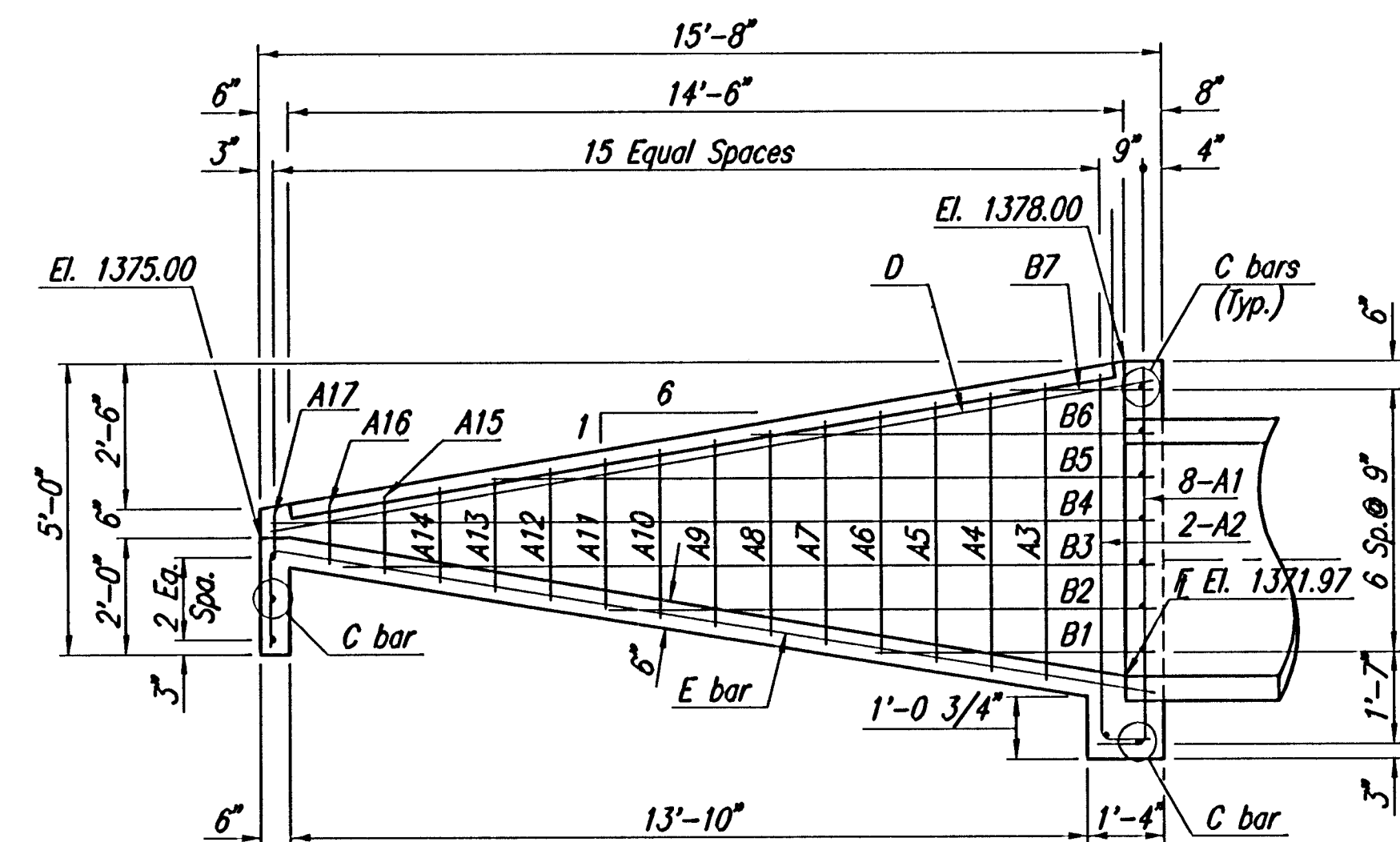
VIEW A-A



VIEW B-B



PLAN



SECTION

CONCRETE HEADWALL NOTES

CONCRETE: Bevel all exposed edges with a 3/4" triangular molding or finish with an approved edging tool. Concrete shall have a minimum 28 day compressive strength of 4,000 p.s.i. All pipes shall be flush cut prior to being cast into the headwall.

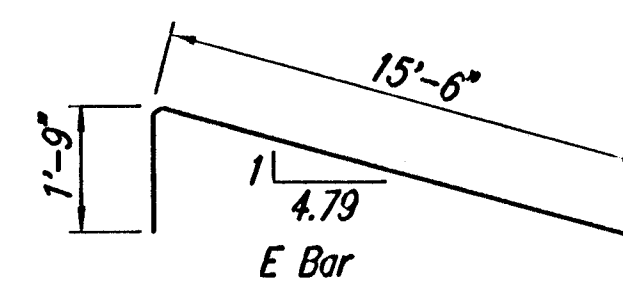
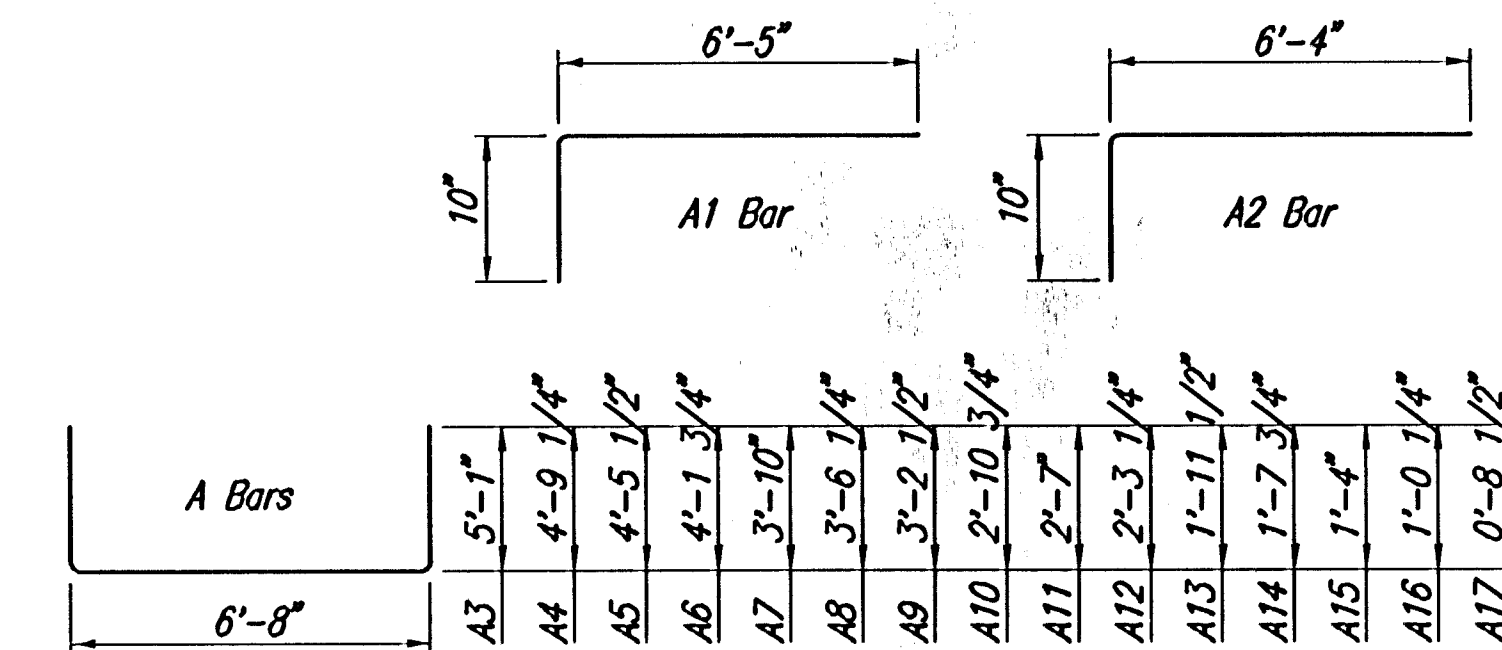
REINFORCING STEEL: All dimensions relative to reinforcing steel are to centerline of bar unless otherwise noted. All clearances shall be 2" unless otherwise noted. All reinforcing steel shall conform to A.S.T.M. designation A615 Grade 60 and shall be epoxy coated.

STRUCTURAL STEEL: All structural steel shall conform to A.S.T.M. designation A36. All structural steel shall be galvanized in accordance with A.S.T.M. designation A123.

PAYMENT: A deduction in concrete quantities has been made for the pipe opening. The "R.C. Headwall (48")" shall be paid for at the unit price per each including concrete, reinforcing steel, structural steel, galvanizing, excavation, backfilling and all other miscellaneous materials, labor, tools, equipment and incidentals necessary to complete the work. Quantities shown are for information only.

RE-BAR SCHEDULE				
Mark	Shape	No.	Length	Weight
A1		8	7'-3"	38.74
A2		2	7'-2"	9.57
A3		1	16'-10"	11.24
A4		1	16'-2 1/2"	10.83
A5		1	15'-7"	10.41
A6		1	14'-11 1/2"	9.99
A7		1	14'-4"	9.57
A8		1	13'-8 1/2"	9.16
A9		1	13'-1"	8.74
A10		1	12'-5 1/2"	8.32
A11		1	11'-10"	7.90
A12		1	11'-2 1/2"	7.49
A13		1	10'-7"	7.07
A14		1	9'-11 1/2"	6.65
A15		1	9'-4"	6.23
A16		1	8'-8 1/2"	5.82
A17		1	8'-1"	5.40
B1		2	4'-10"	6.46
B2		2	9'-6"	12.69
B3		2	14'-2"	18.93
B4		2	15'-4"	20.49
B5		2	11'-6"	15.36
B6		2	7'-0"	9.35
B7		2	2'-6"	3.34
C		12	6'-9"	54.11
D		2	15'-6 1/2"	20.76
E		8	17'-3"	92.18
X		4	4'-0"	10.69
Total Rebars				438 Lbs.
Concrete				4.46 C.Y.
Structural Steel				1989 Lbs.

All Concrete Reinforcement to be #4 bars.



BENDING DIAGRAMS

		No. _____ By _____ Date _____	
OAK CREEK - PHASE 1			
HEADWALL DETAILS (48") JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJECT NO. 472-84209			
Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by: BOB, BLB Drawn by: BUS	Job No.: 35-04688-000 Date: October 2004	Sheet 34 of 86	