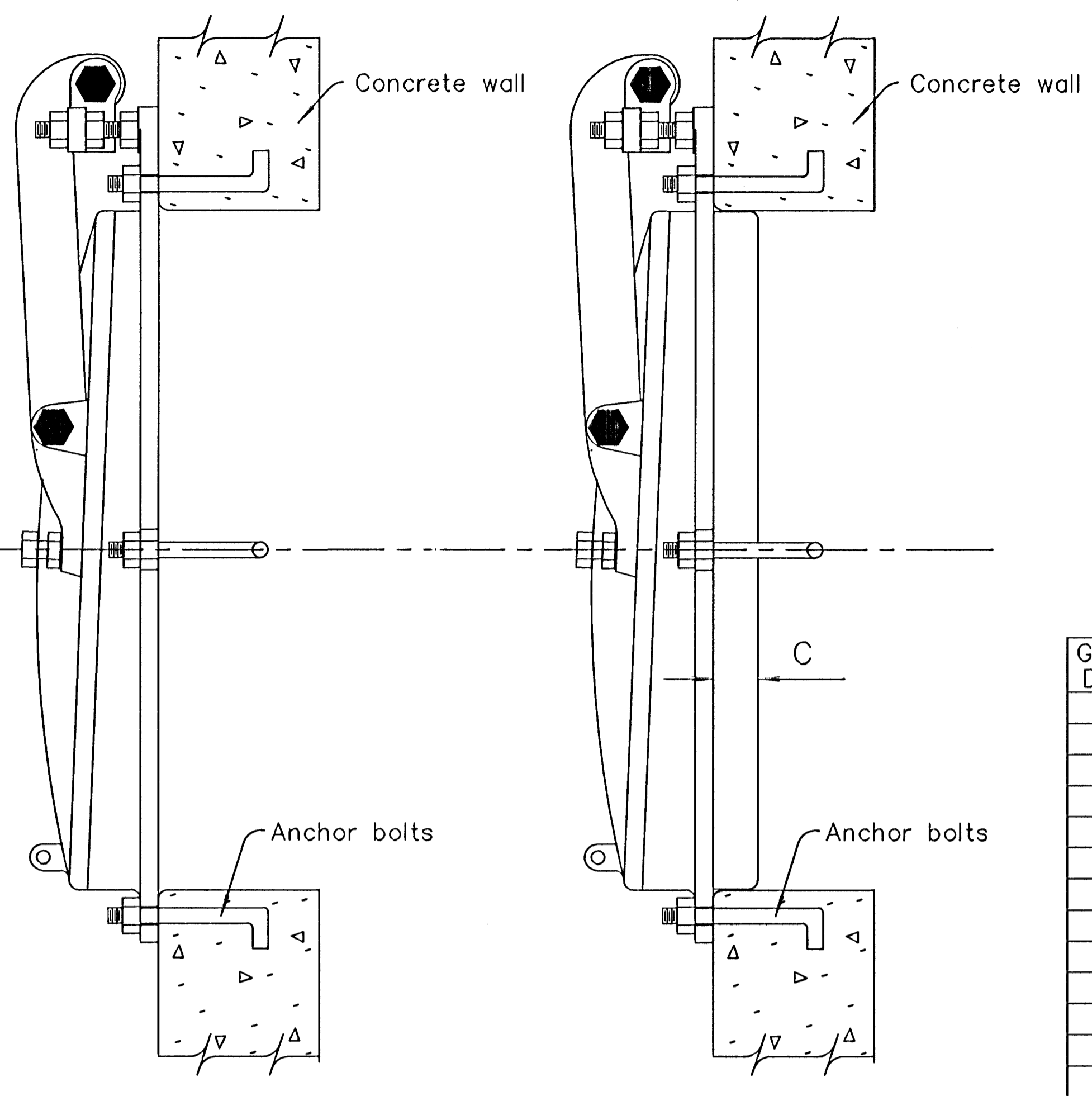


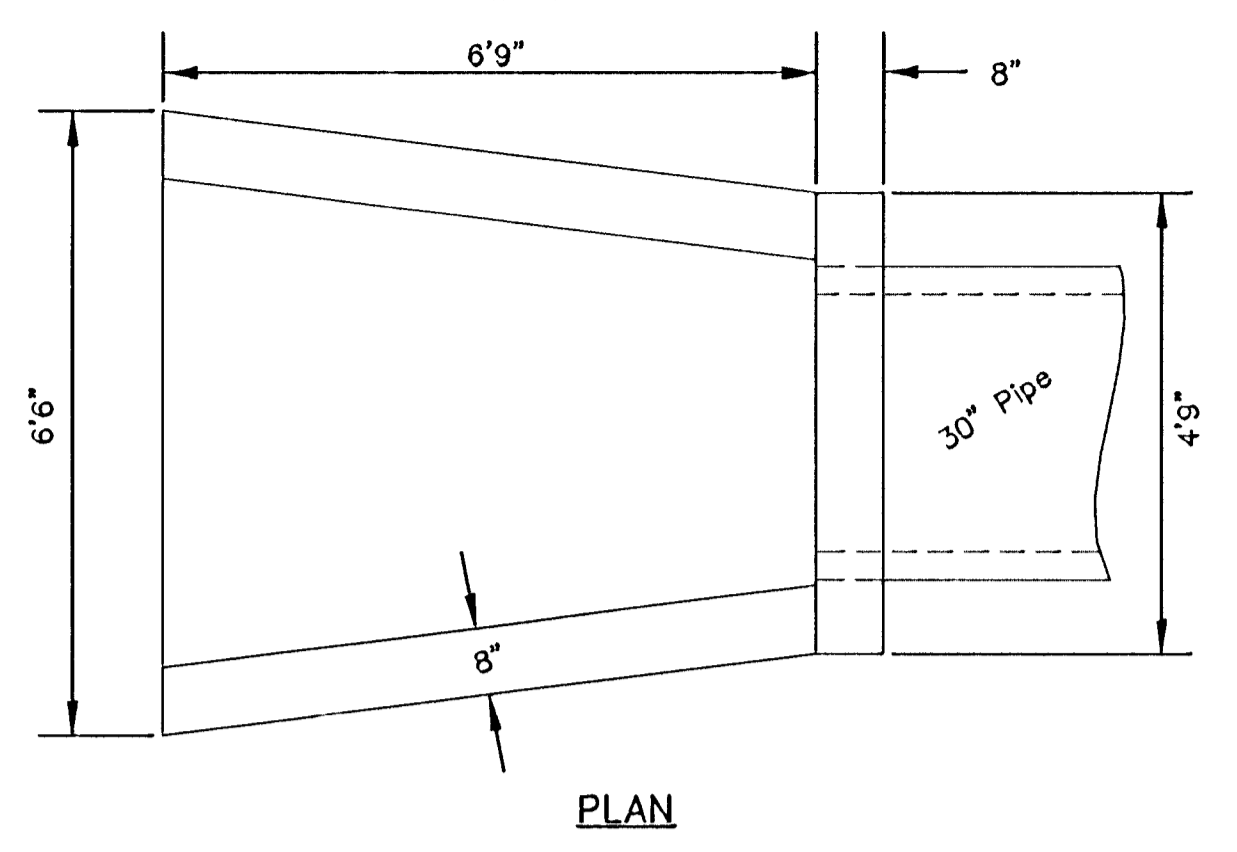
ELEVATION



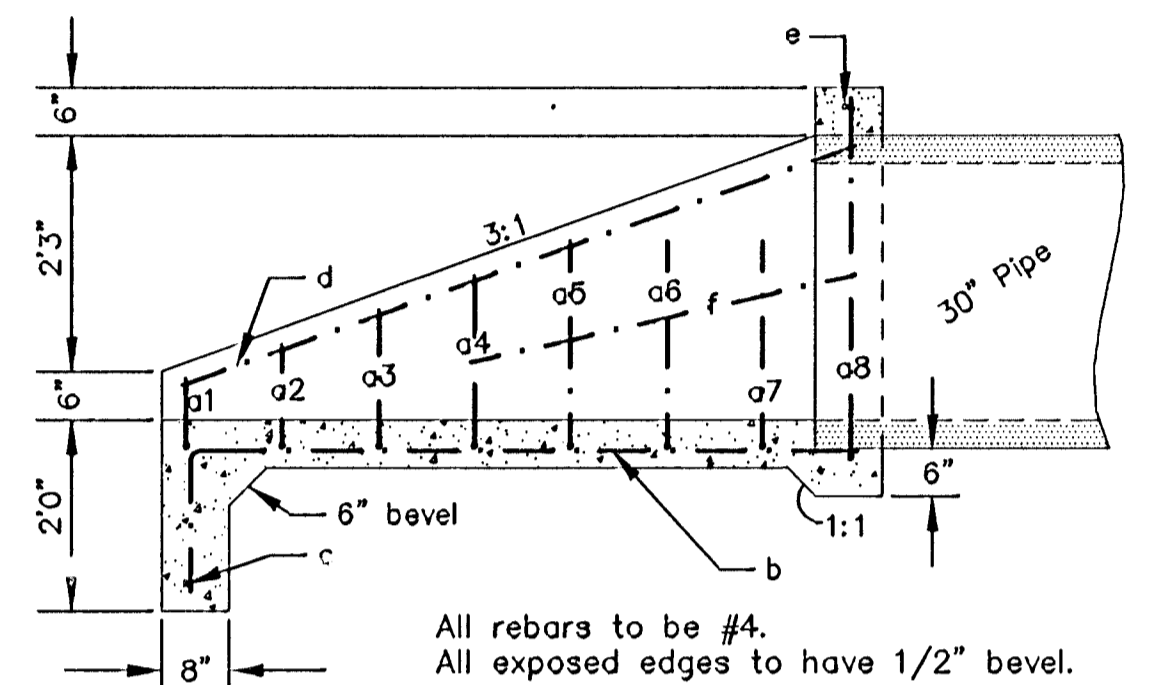
SIDE VIEW & SECTION THRU CONCRETE WALL FLAT BACK

SIDE VIEW & SECTION THRU CONCRETE WALL SPIGOT BACK

GATE SIZE DIAMETER	A	B	C
8"	13 1/2"	14 1/2"	1 1/4"
10"	16"	16 3/4"	1 1/4"
12"	19"	19 3/4"	1 1/4"
15"	22 1/4"	23 5/8"	1 1/4"
18"	24 3/4"	28 1/8"	1 1/4"
21"	28"	30 1/2"	1 1/4"
24"	32"	35 1/8"	1 1/4"
30"	37"	42"	2"
36"	44"	49 1/2"	2"
42"	50 3/4"	57 1/8"	2 1/2"
48"	57"	66 1/4"	2 1/2"
54"	64 1/4"	71 1/8"	2 1/2"
60"	69"	80 1/2"	2 1/2"
66"	80"	90"	2 1/2"
72"	82"	95 1/8"	3"
84"	100"	112 1/8"	3"
96"	113 1/4"	125 3/8"	3"

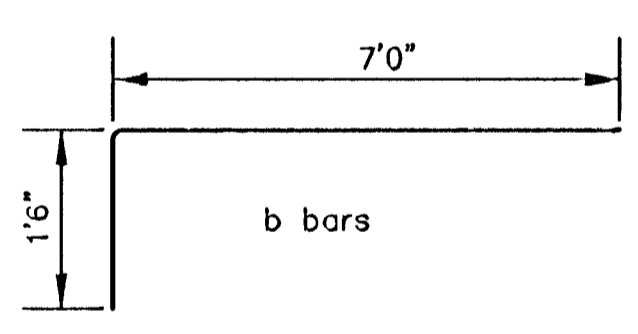
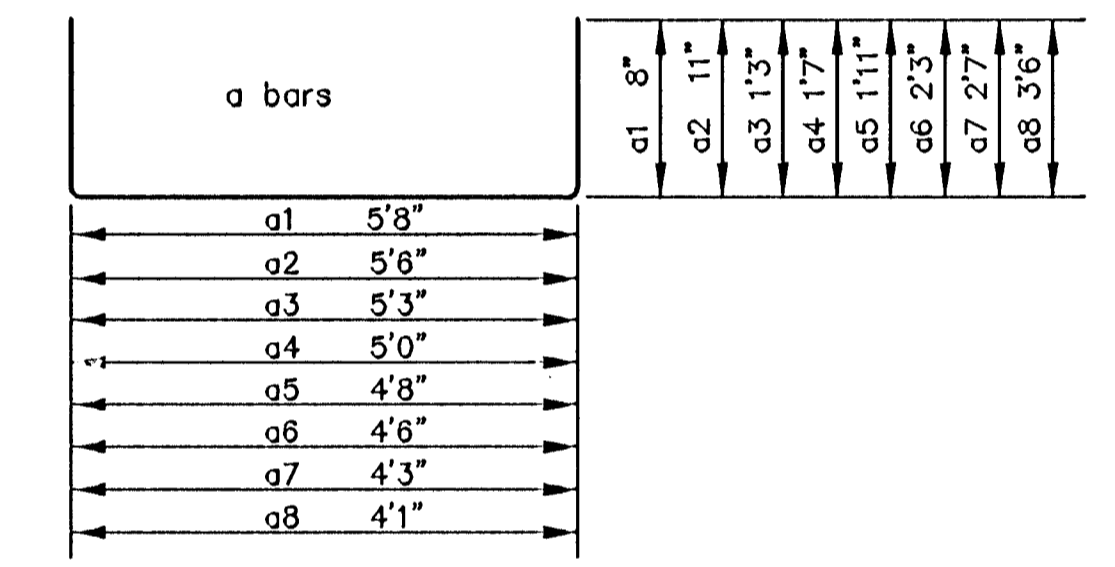


PLAN



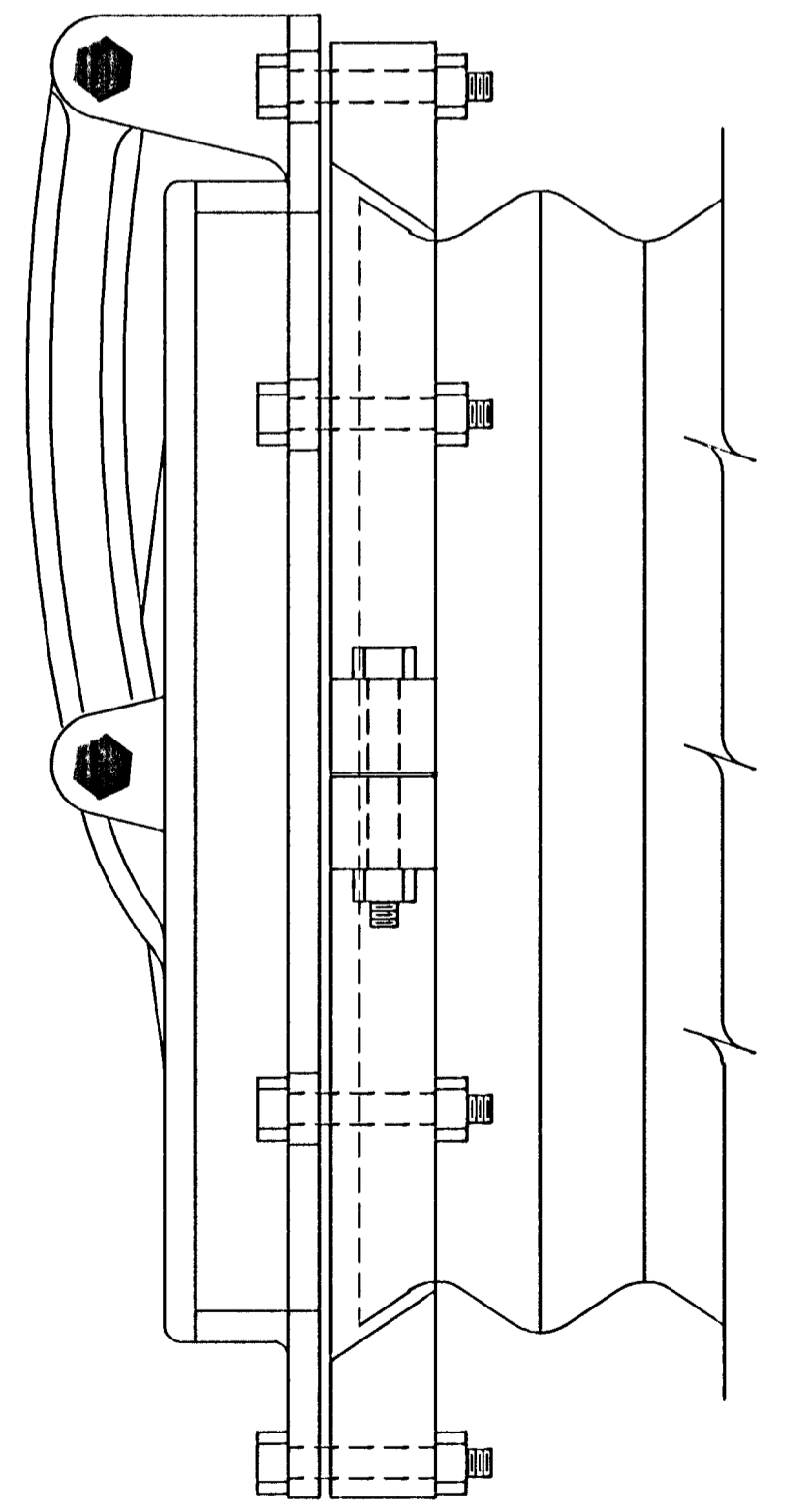
SECTION

All rebars to be #4.
All exposed edges to have 1/2" bevel.

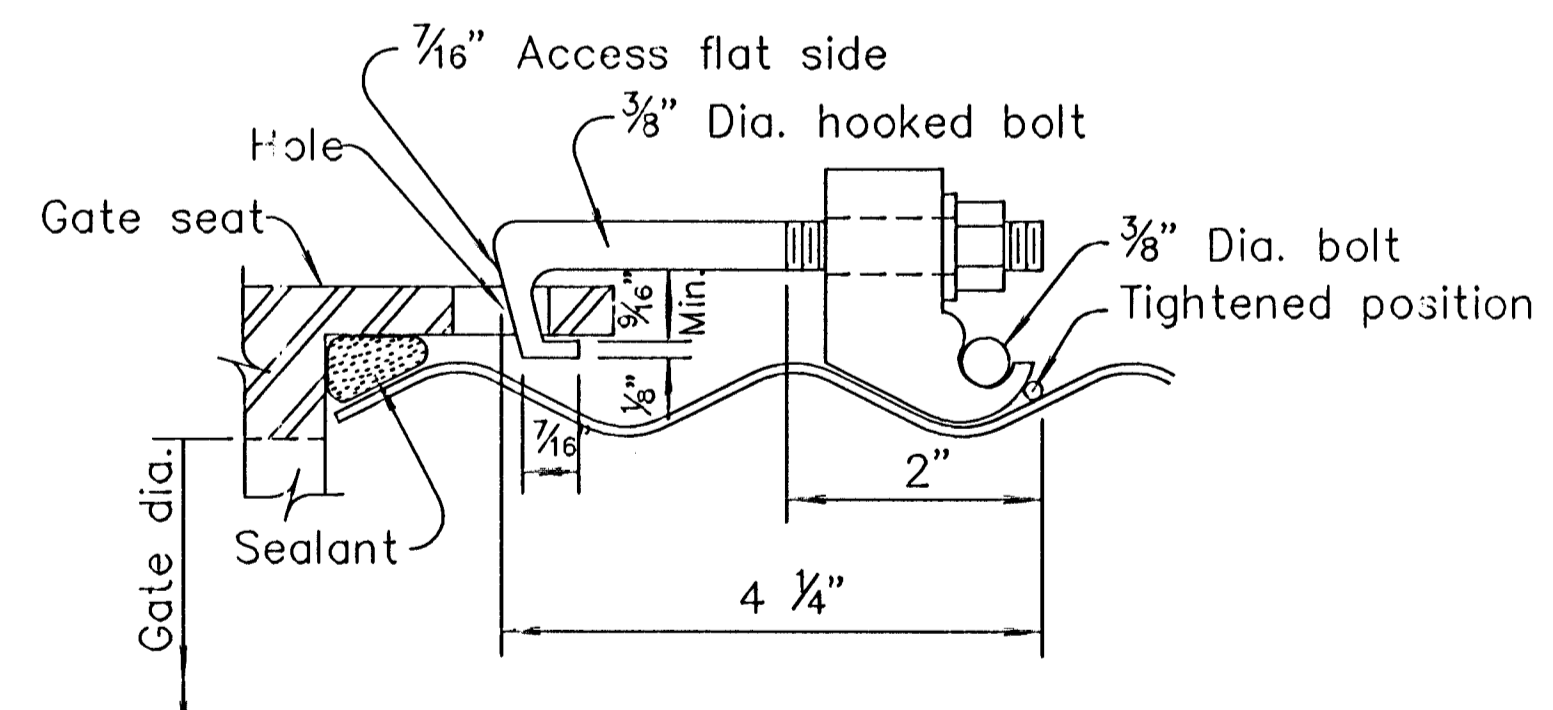


BAR	NUMBER	LENGTH	SHAPE	WEIGHT
a1	1	7'0"	L	4.68
a2	1	7'4"	L	4.90
a3	1	7'9"	L	5.18
a4	1	8'2"	L	5.46
a5	1	8'6"	L	5.68
a6	1	9'0"	L	6.01
a7	1	9'5"	L	6.29
a8	1	11'1"	L	7.40
b	7	8'6"	L	35.07
c	1	6'0"	—	4.01
d	2	7'6"	—	10.02
e	1	4'5"	—	2.95
f	2	4'3"	—	5.68
Total Rebar, lbs				103.33
Concrete, C.Y.				2.01

All rebars to be #4.
HEADWALL FOR 30" PIPE



ALTERNATE CONNECTION BAND



ALTERNATE CONNECTION TO CORRUGATED STEEL PIPE

Gate sizes from 12" to 24" dia., use 4 hooked bolts.
Gate sizes from 30" to 36" dia., use 6 hooked bolts.
Gate sizes from 42" to 48" dia., use 8 hooked bolts.

GENERAL NOTES
Automatic flap gates shall conform to the dimensions and approximate weights shown in the tables. The gate shall be installed in accordance with the manufacturers' recommendations. When no water is against the face of the gate, the flap shall seat on the finished frame. Seating surfaces of both frame and flap shall be cast iron and machined to a close fit. The gate flap, frame and links shall be cast iron. Anchor bolts, assembly bolts and nuts shall be galvanized steel. The gate is designed to withstand a maximum operating head of twenty (20) feet on the check side, measured from the center line of the gate to the high water level. The illustrations, notes and table of dimensions shown are recommended for gates designed for 20 feet of operating head. Other approved makes may be substituted with the approval of the Engineer.

7	12-27-93	Delete paint note	R.J.S.	J.O.B.
8	4-9-92	Alt. conn. band, ent. on CADD	R.J.S.	J.O.B.
5	7-5-90	Revised paint note	R.J.S.	J.O.B.
NO.	DATE	REVISIONS	BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION				
AUTOMATIC FLAP GATE				
RD515				
FHWA APPROVAL	2-15-94	APP'D	James O. Brewer	
DESIGNED		QUANTITIES	TRACED	Bowser
DESIGN CK.		DETAIL CK.	TRACE	CK. Soltz

DRAINAGE HOT SPOT
HEADWALL DETAIL FOR 30' PIPE
N. WOOD LANE, WICHITA, KANSAS
CED PROJ. NO.: 20041209
CERTIFIED ENGINEERING DESIGN, P.A.
810 WEST DOUGLAS, SUITE C
WICHITA, KANSAS 67203
PH.(316)262-8808 FAX.(316)262-1669

DESIGNED: HDF	SCALE: NTS	SHEET
DRAWN: COW/KDOT	DATE: 12/04	6
CHECKED: HDF	CED FILE:06-HDWL30-FLPGTE	TOTAL 7