

LIST OF DRAWINGS

PROJECT DRAWINGS

5449-G-1	LIST OF DRAWINGS AND GENERAL INFORMATION
G-2	PLAN AND PROFILES
G-3	SECTIONS AND EXISTING AQUEDUCT REMOVAL
G-4	PIPE LAYING DETAILS
G-5	PIPE DETAILS, SHT. 1 OF 2
G-6	PIPE DETAILS, SHT. 2 OF 2
G-7	CLOSURE SECTIONS AND DETAILS
G-8	BLOWOFF STRUCTURES
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S-1483 VENDOR DRAWINGS

E.B.M.U.D. STANDARD DRAWINGS

198-EA	STEEL PIPE FLANGE WITH ATTACHED PIPE SECTION
277-A	COVER FOR 8" C. I. VALVE POT
782-BA	ANCHORAGE FOR HORIZONTAL BENDS IN CAST IRON LINES
1337-A	STEEL PIPE TAPERS
1480-A	BRONZE SURVEY MARKER PLATE
1870-B	8" VALVE POT WITH HANDLE & OUTSIDE LOCK
3125-GB	UNIFIED SOIL CLASSIFICATION
4800-GB	PIPE TRENCH EXCAVATION AND BACKFILL

REFERENCE DRAWINGS

* STATE HIGHWAY DRAWINGS FOR CONTRACT NO. 04-332634	
* DH 615-1B	CROSS SECTIONS OF REINFORCED CONCRETE AQUEDUCT (EXISTING LAFAYETTE AQUEDUCT NO. 1)
* W-2025-9	PLAN & PROFILE OF EXISTING LAFAYETTE AQUEDUCT NO. 2
* 4195-G-163	LAFAYETTE AQUEDUCTS RIGHT OF WAY
* 4195-G-164	LAFAYETTE AQUEDUCTS RIGHT OF WAY
* A-765.17A	STATE HIGHWAY APPRAISAL MAP
* A-765.18	STATE HIGHWAY APPRAISAL MAP
* A-765.18A	STATE HIGHWAY APPRAISAL MAP

FIELD BOOK 2940

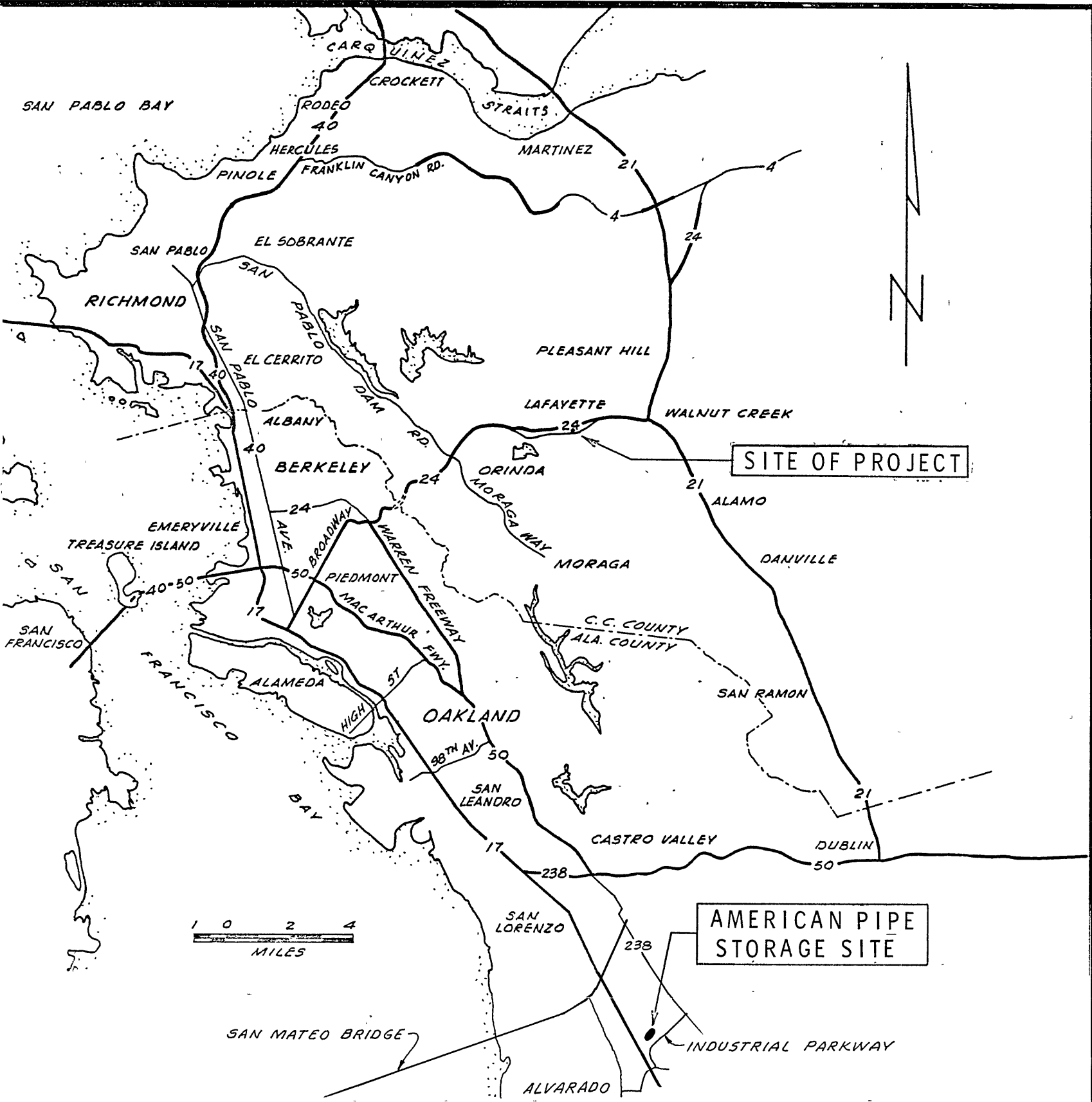
* SEE NOTE 7

GENERAL NOTES

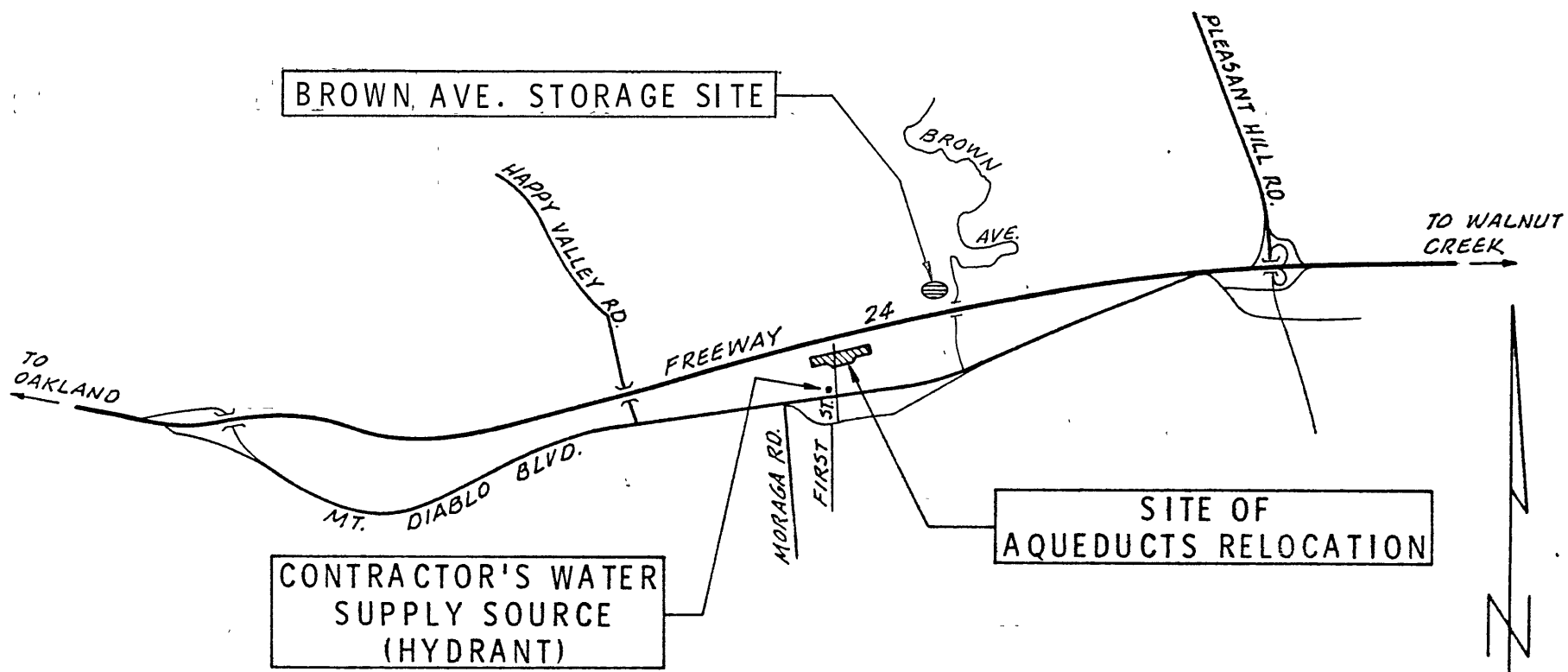
- WHERE NECESSARY, WORK ON THIS PROJECT SHALL BE COORDINATED WITH HIGHWAY CONSTRUCTION WORK BEING PERFORMED UNDER SEPARATE CONTRACT.
- DURATION AND DETAILS OF AQUEDUCT SHUTDOWN ARE DESCRIBED IN THE SPECIFICATIONS.
- AT THE CONTRACTOR'S WATER SUPPLY SOURCE, SHOWN ON THE VICINITY MAP, THE MAXIMUM HYDRAULIC GRADIENT ELEVATION IS 570 FEET. THE MINIMUM IS APPROXIMATELY 540 FEET.
- ELEVATIONS ARE BASED ON THE U. S. C. & G. S. MEAN SEA LEVEL DATUM OF 1929 FOR EVERYTHING EXCEPT AQUEDUCT #1 WHICH IS BASED ON AQUEDUCT DATUM.
- PROJECT DRAWINGS IN THE SERIES 5449-G ARE USUALLY REFERRED TO AS G-1, G-2, ETC.
- SECTIONS AND DETAILS ARE DESIGNATED BY FRACTIONAL SYMBOLS, SUCH AS: $\frac{A}{2}$; $\frac{1}{6}$; $\frac{1}{7}$.
THE NUMERATOR IDENTIFIES THE SECTION OR DETAIL:
LETTERS IDENTIFY SECTIONS.
NUMERALS IDENTIFY DETAILS.
THE DENOMINATOR IS THE SHEET REFERENCE NUMBER:
IN A PARENT VIEW, IT IDENTIFIES THE SHEET ON WHICH THE SECTION OR DETAIL VIEW IS SHOWN.
IN THE CAPTION OF A SECTION OR DETAIL VIEW, IT IDENTIFIES EACH SHEET ON WHICH THE PARENT VIEW IS SHOWN.
- DRAWINGS MARKED WITH AN ASTERISK ARE NOT INCLUDED IN THE SPECIFICATION ISSUED FOR CONSIDERATION BY BIDDERS. PERTINENT INFORMATION FROM THEM APPEARS ON THE PROJECT DRAWINGS.

MATERIALS FURNISHED BY E.B.M.U.D.

ITEM	QUANTITY	REFERENCE	STORAGE LOCATION
108" SALVAGED CONC. PIPE	272'	G-4	AMERICAN PIPE YD. (LOCATION MAP)
108" SALVAGED CONC. PIPE	496'	G-4	BROWN AVE. (VICINITY MAP)
108" ML&C SALVAGED STEEL PIPE	60'±	G-4 & G-6	BROWN AVE.
108" ML&C SALVAGED STEEL PIPE W/STRAIGHT SPIGOT END	30'±	G-4 & G-6	BROWN AVE.
8" GATE VALVE, FLANGED	3	G-2; G-8	OAKPORT STORAGE CENTER
8" ML&C STEEL PIPE & FITTINGS	50'±	G-2	OAKPORT STORAGE CENTER
10" PLUG VALVES	2	G-9	OAKPORT STORAGE CENTER
10" AIR & VACUUM VALVES	2	G-9	OAKPORT STORAGE CENTER
12" A.C. PRESSURE PIPE	210'±	G-2	OAKPORT STORAGE CENTER
12" C. I. 90° ELL	1	G-2	OAKPORT STORAGE CENTER
12" C. I. SLEEVE	1	G-2	OAKPORT STORAGE CENTER
VALVE POT COVERS	2	G-9	OAKPORT STORAGE CENTER
METER BOX & COVER	1	G-2	OAKPORT STORAGE CENTER



LOCATION MAP

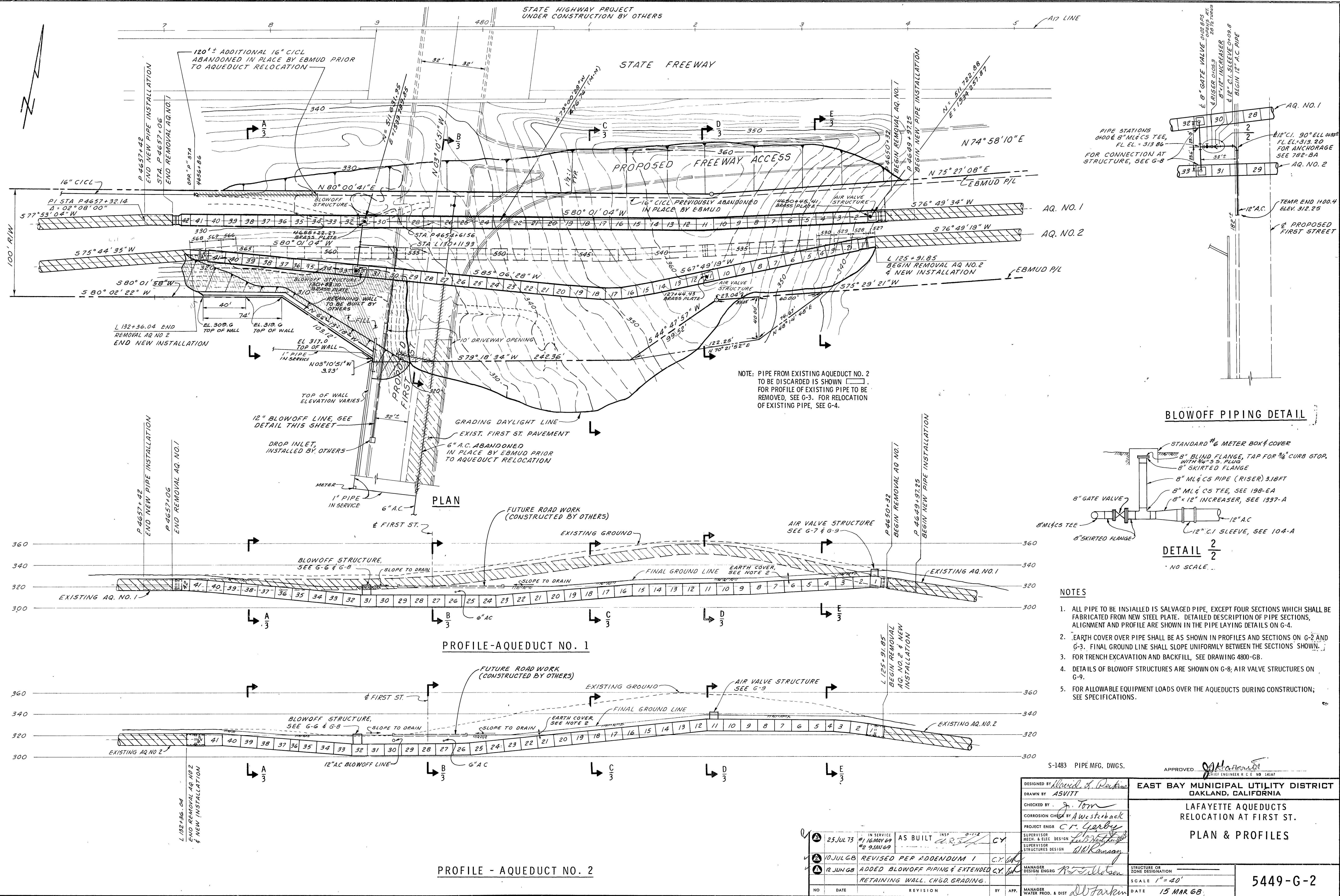


VICINITY MAP

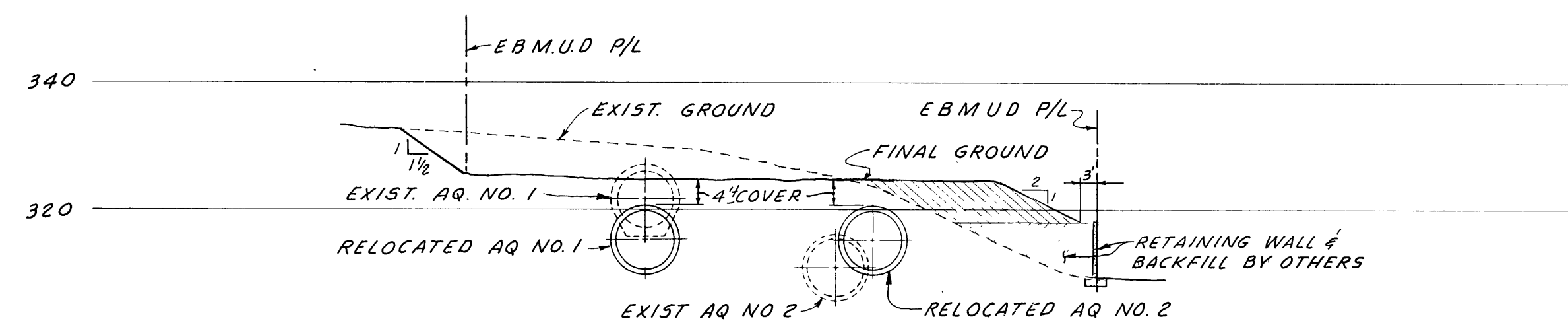
SPECIFICATION NO. 1134

K-91229 25023		APPROVED:	
DESIGNED BY:		EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA	
DRAWN BY:		LAFAYETTE AQUEDUCTS RELOCATION AT FIRST ST.	
CHECKED BY:		LIST OF DRAWINGS & GENERAL INFORMATION	
CORROSION CHECK BY:		STRUCTURE OR ZONE DESIGNATION	
PROJECT ENGR.		SCALE A5 SHOWN	
SUPERVISOR MECH. & ELEC. DESIGN 		DATE 15 MAR 68	
SUPERVISOR STRUCTURES DESIGN 		5449-G-1	
MANAGER DESIGN ENGRG.			
MANAGER WATER PROD. & DIST.			

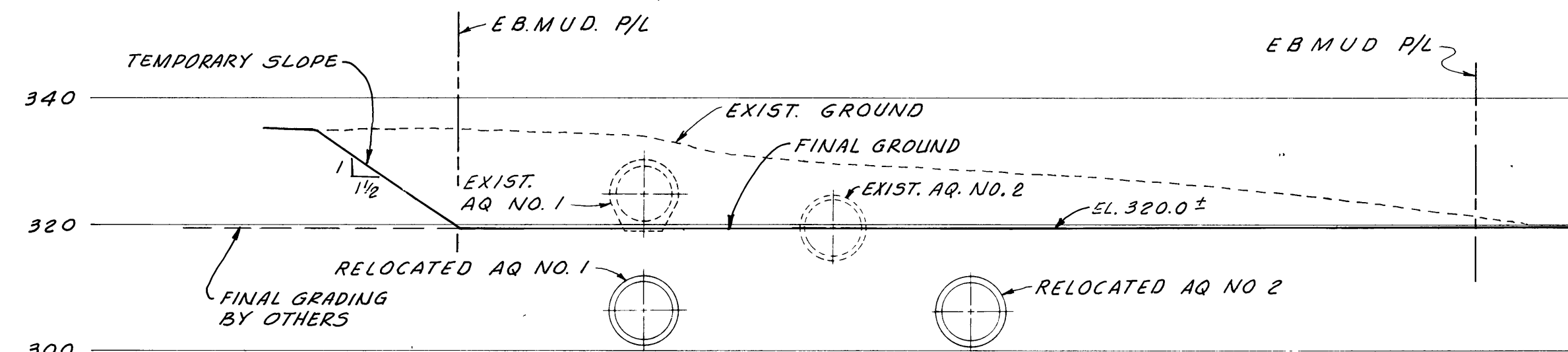
NO.	DATE	REVISION	BY	APP.
1	25 JUL 73	IN SERVICE		
2	16 MAY 69	AS BUILT		
3	9 JAN 69	REV. LIST OF MATERIALS FURN. BY DIST.		



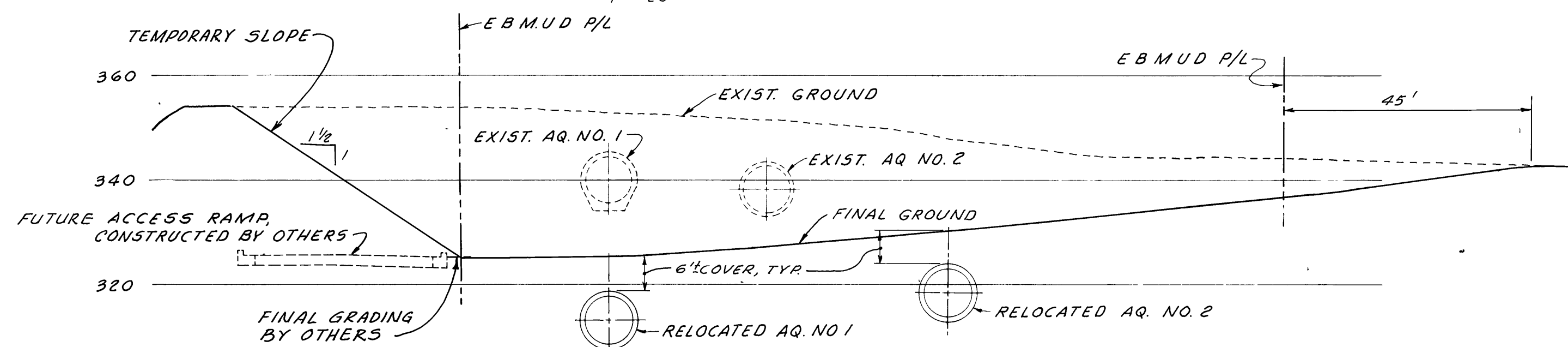
DESIGNED BY <i>Alvin J. Perkins</i>	EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA LAFAYETTE AQUEDUCTS RELOCATION AT FIRST ST. PLAN & PROFILES	STRUCTURE OR ZONE DESIGNATION _____ SCALE 1" = 40' DATE 15 MAR 68	5449-G-2
DRAWN BY <i>ASV/TT</i>			
CHECKED BY <i>J. Tom</i>			
CORROSION CHECK BY <i>A Westrick</i>			
PROJECT ENGR <i>C.R. Yerkes</i>			
SUPERVISOR MECH. & ELEC. DESIGN <i>Lee B. Heston</i>			
SUPERVISOR STRUCTURES DESIGN <i>W.R. Ramsey</i>			
MANAGER DESIGN ENGR <i>R.S. Ellerton</i>			
MANAGER WATER PROD. & DIST <i>Ed Farkas</i>			



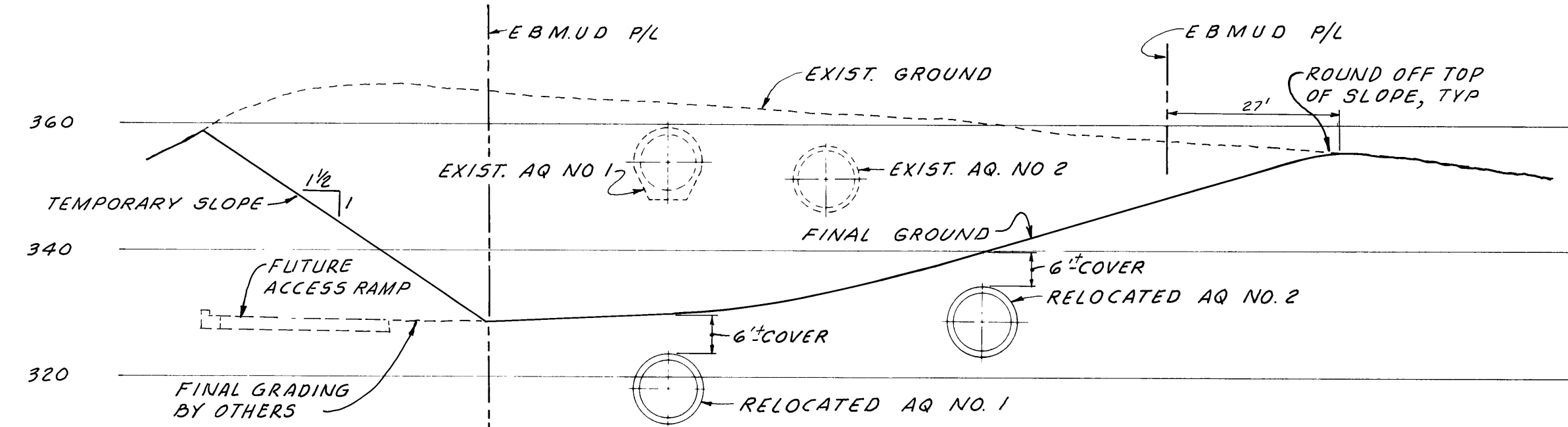
SECTION A/2
1" = 20'



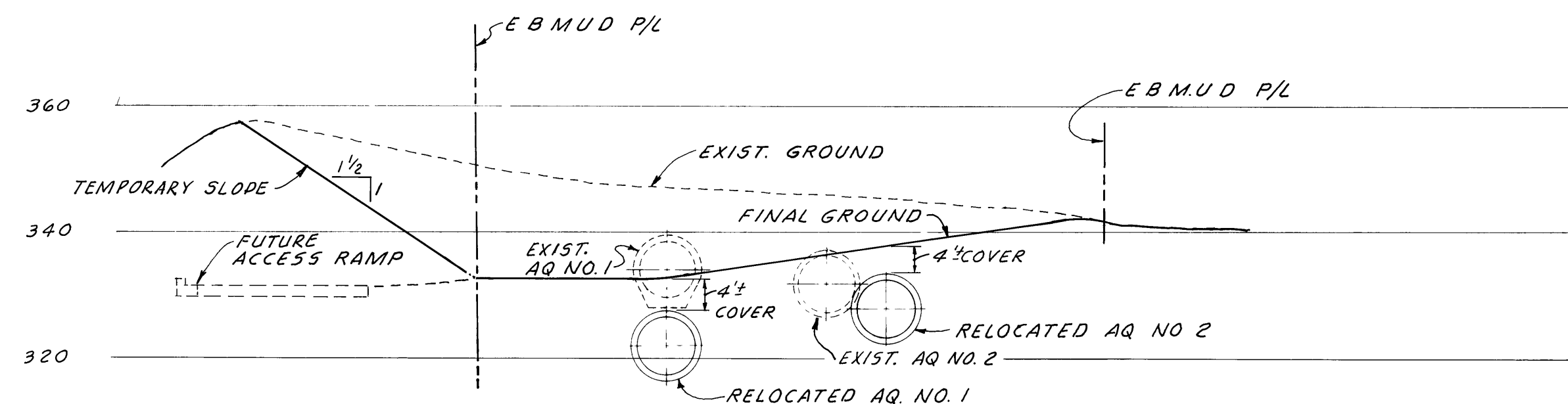
SECTION B/2
1" = 20'



SECTION C/2
1" = 20'



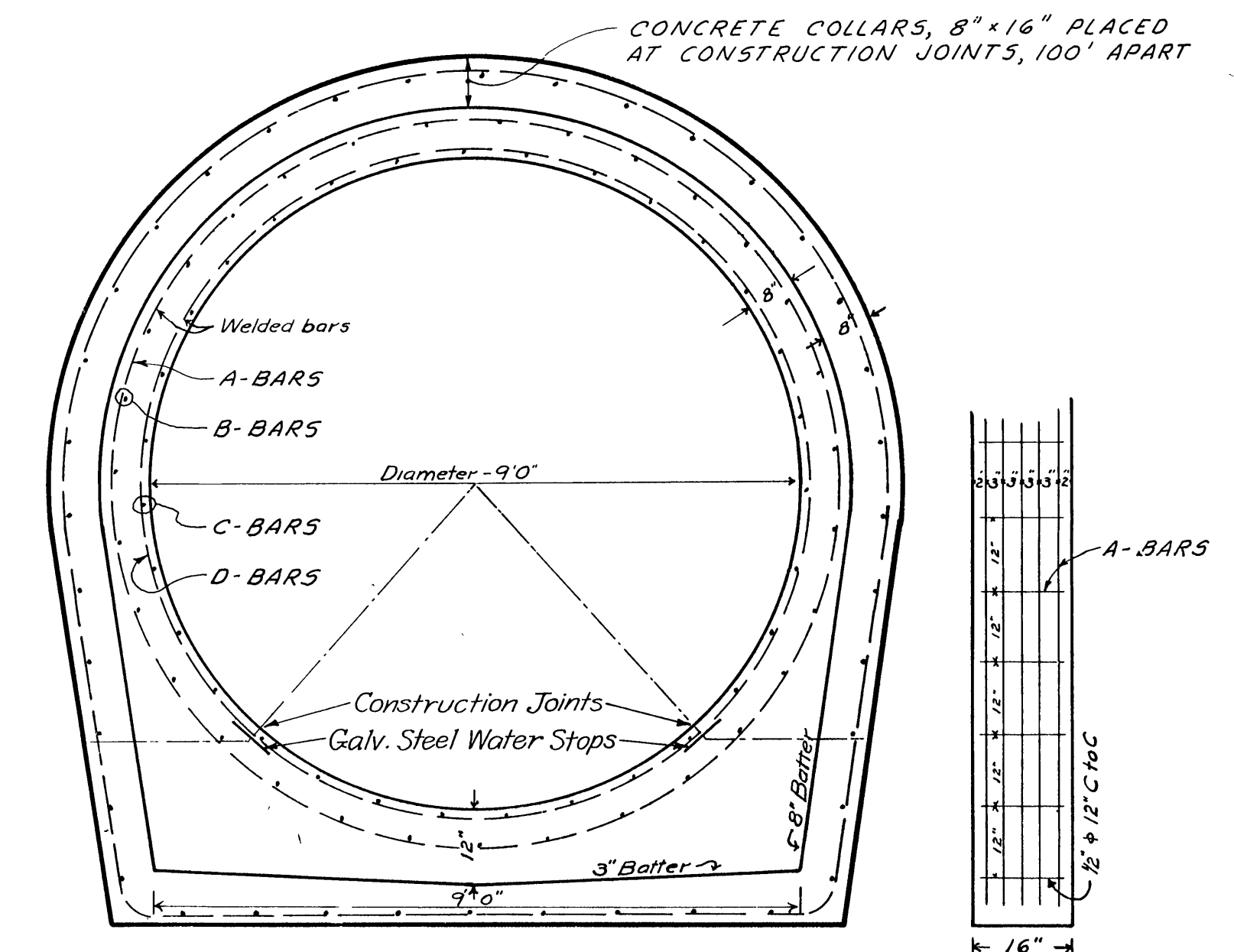
SECTION D/2
1" = 20'



SECTION E/2
1" = 20'

LOCATION	BAR SIZE AND SPACING			
	A	B	C	D
P 4650+33 TO P 4650+50 P 4654+10 TO P 4657+06	#4 @ 2 1/4"	#4 @ 12"	#4 @ 12"	#4 @ 2 1/4"
P 4650+50 TO P 4651+00 P 4653+50 TO P 4654+10	#4 @ 2 3/4"	#4 @ 12"	#4 @ 12"	#4 @ 2 3/4"
P 4651+00 TO P 4651+50 P 4652+75 TO P 4653+50	#5 @ 2 1/2"	#5 @ 9"	NONE	NONE
P 4651+50 TO P 4652+75	#5 @ 3 1/4"	#5 @ 9"	NONE	NONE

REINFORCEMENT DETAILS



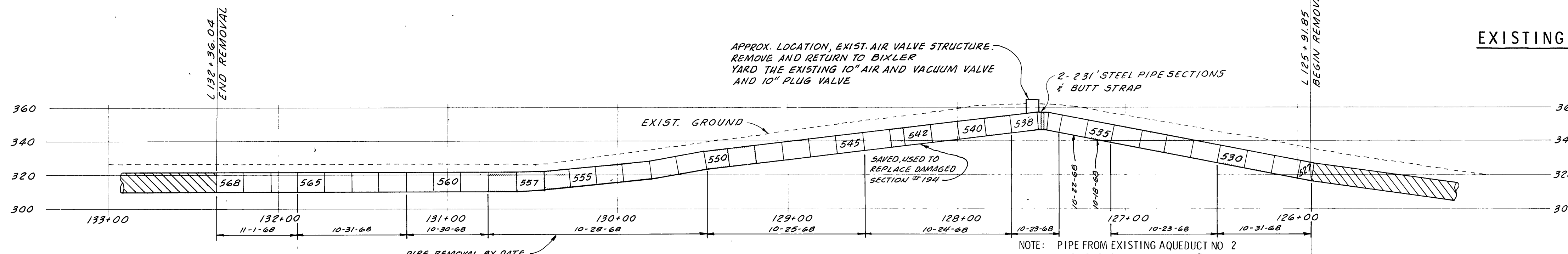
SECTION

SIDE VIEW OF COLLAR
SHOWING REINFORCEMENT

EXISTING SECTION AQUEDUCT NO. 1

NOTES

- NOTES ON G-2 APPLY TO THIS SHEET ALSO.
- TYPICAL JOINT DETAILS OF EXISTING AQUEDUCT NO. 2 ARE SHOWN ON G-5.
- PIPE TRENCH DETAILS (TYPE "L" PIPE) ARE SHOWN ON DWG. 4800-GB.



PROFILE - EXISTING AQUEDUCT NO. 2

1" = 40' HORIZ. & VERT.

NOTE: PIPE FROM EXISTING AQUEDUCT NO. 2 TO BE DISCARDED IS SHOWN [] FOR RELOCATION OF EXISTING PIPE SEE G-4. NUMBERS SHOWN (530, ETC.) REFER TO EXISTING PIPE NUMBERS.

DESIGNED BY	David S. Beckman
DRAWN BY	C. ASVITT
CHECKED BY	J. Tom
CORROSION CHECK BY	Alwesterback
PROJECT ENGR.	C. S. Yee
SUPERVISOR MECH. & ELEC. DESIGN	W. K. Ransom
SUPERVISOR STRUCTURES DESIGN	W. K. Ransom
MANAGER DESIGN ENGR.	R. S. Willson
MANAGER WATER PROD. & DIST.	W. K. Ransom

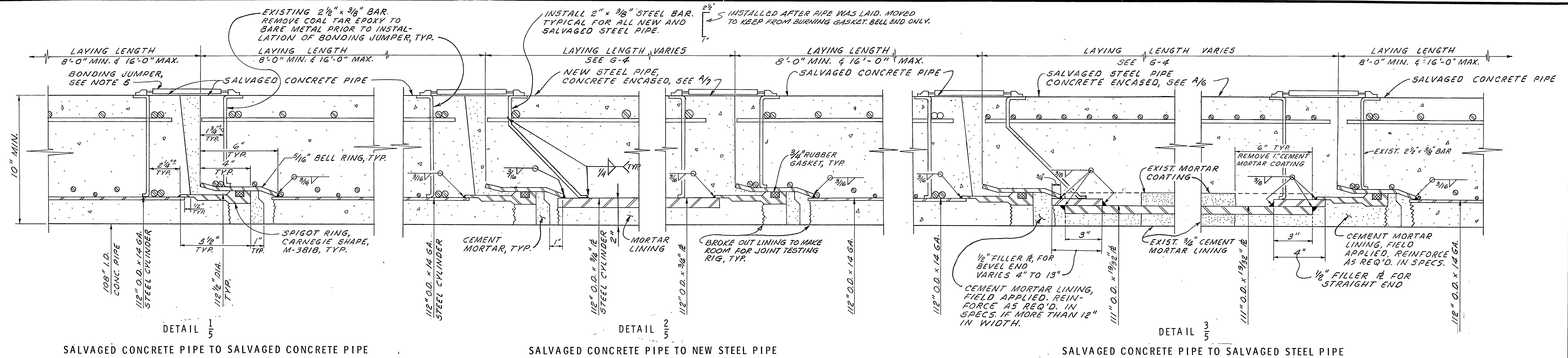
APPROVED		EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA	
		LAFAYETTE AQUEDUCTS RELOCATION AT FIRST ST.	
		SECTIONS & EXISTING AQUEDUCT REMOVAL	

NO.	DATE	REVISION	BY	APP.
25 JUL 73	IN SERVICE	AS BUILT		
12 JUN 78	ADDED RET WALL; CHANGE GRADING			

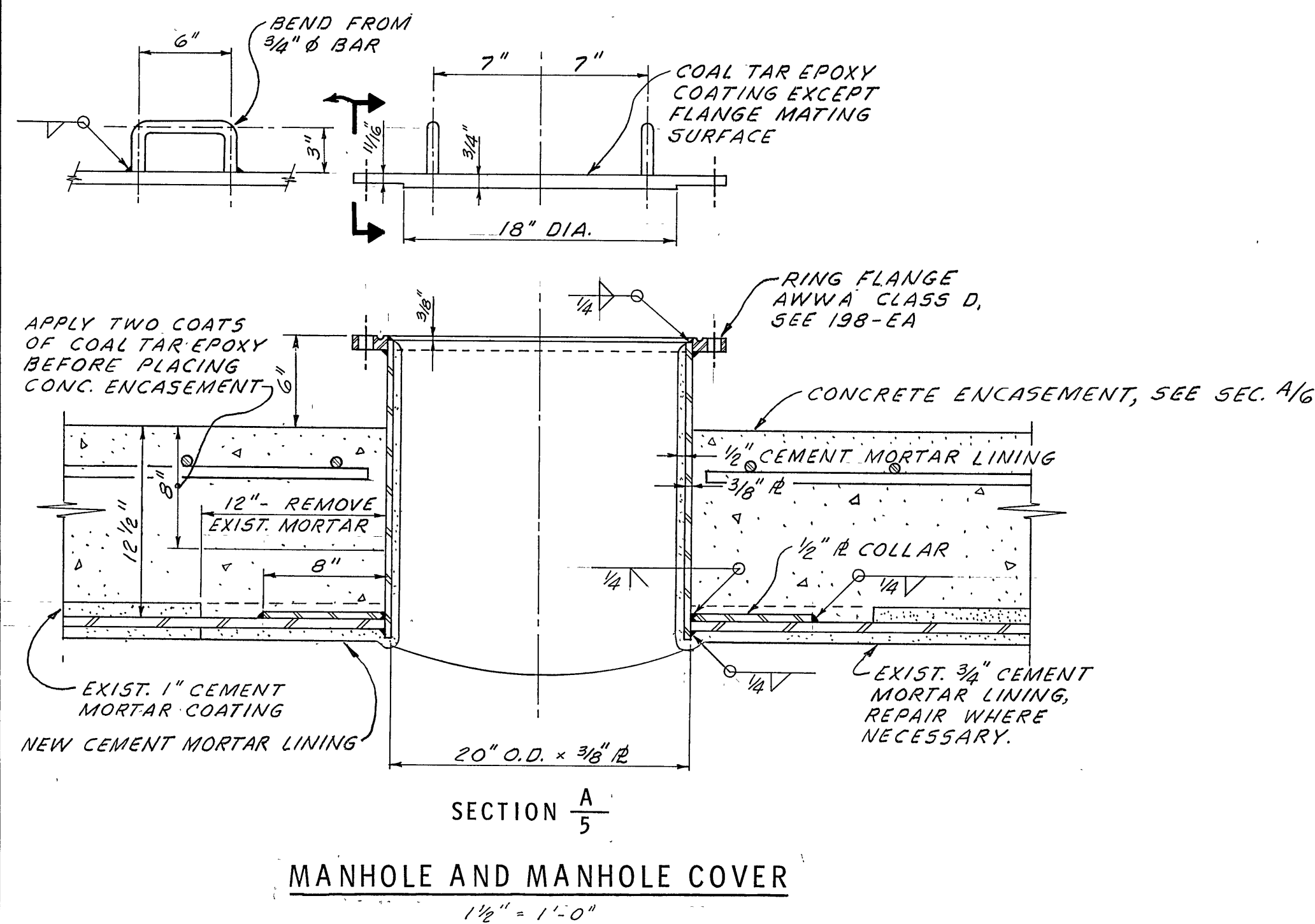
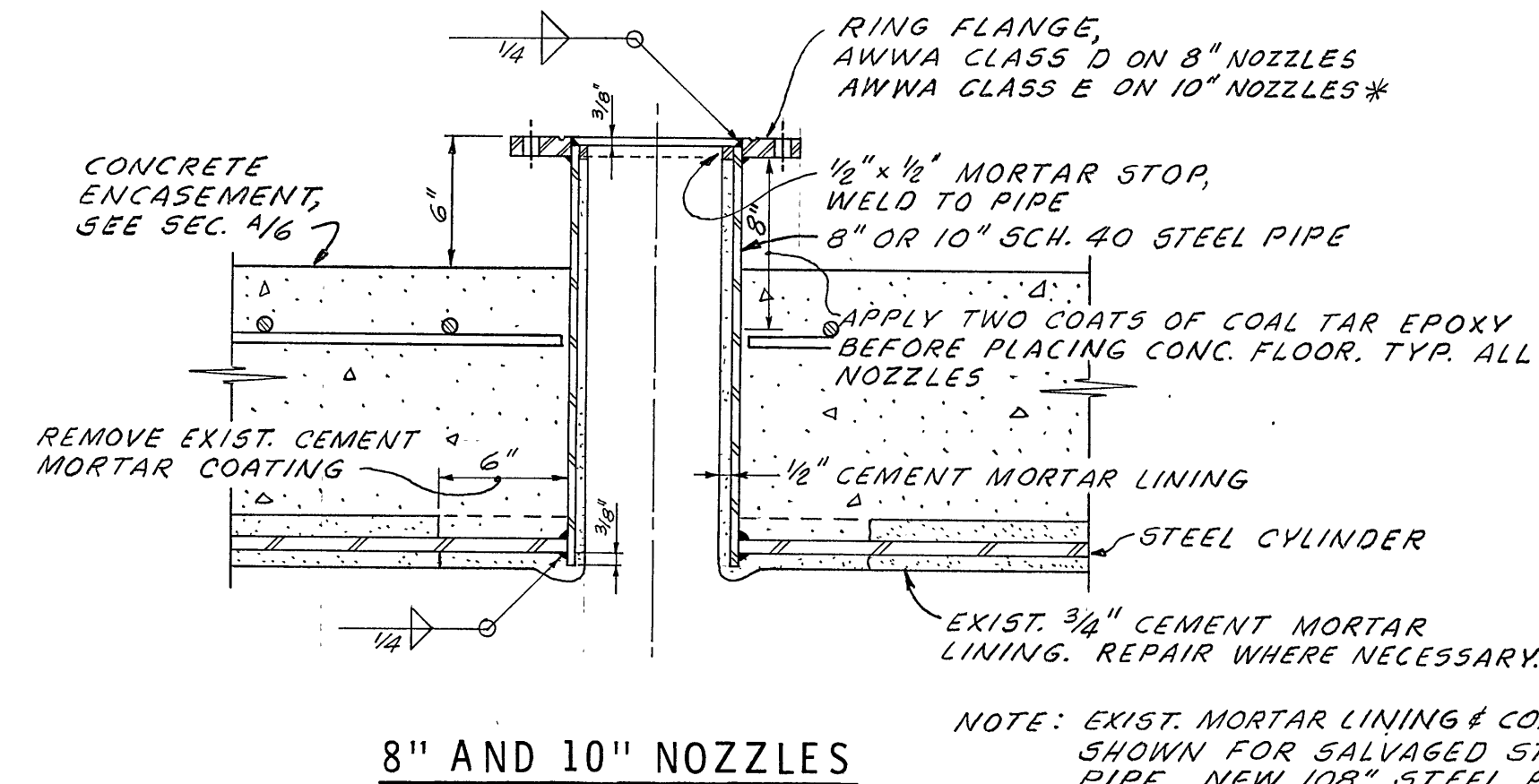
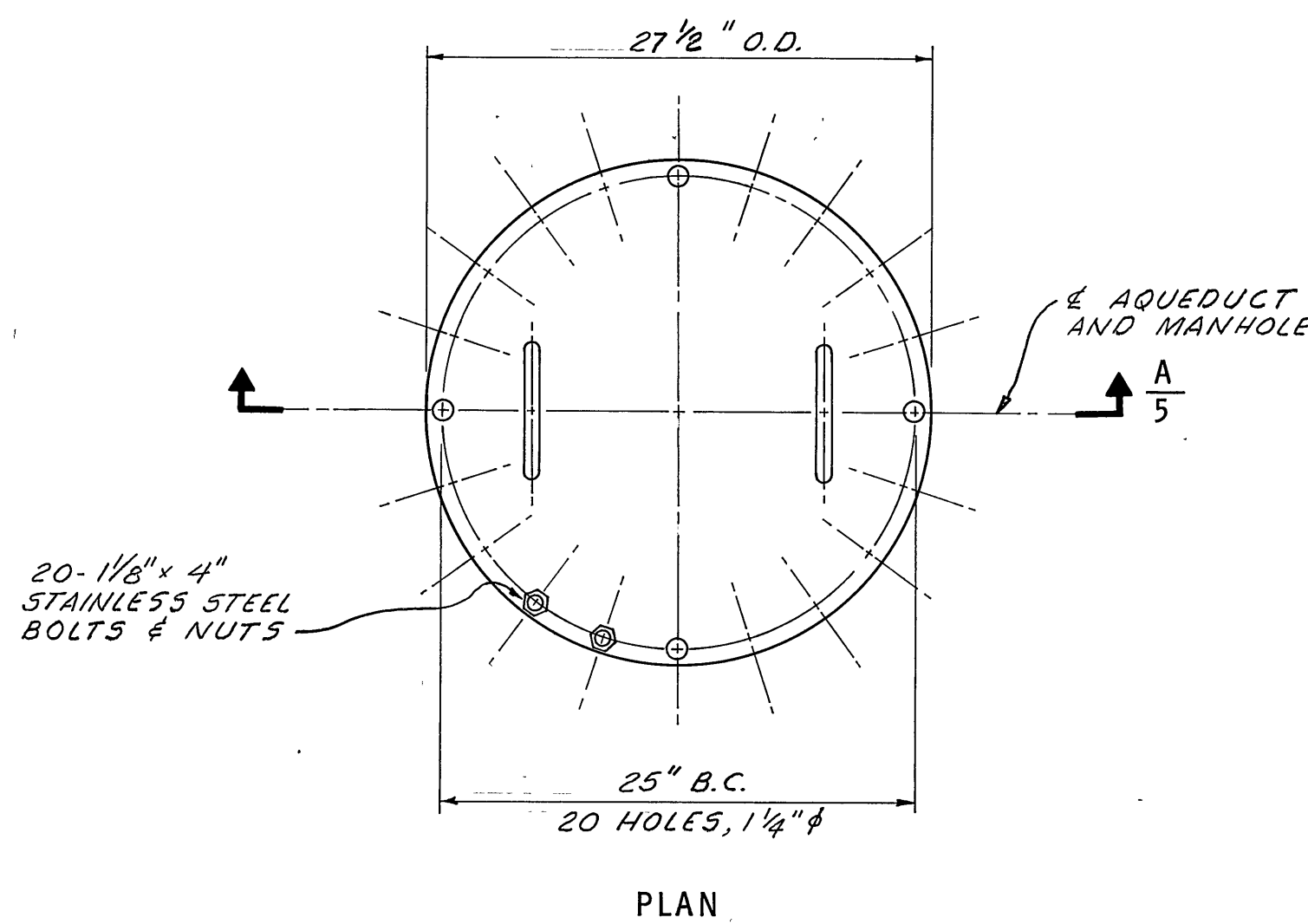
STRUCTURE OR ZONE DESIGNATION	5449-G-3
SCALE	AS SHOWN
DATE	15 MAR 68

END 98" O.D. INSIDE 108" EXISTING AQ. NO. 1				38.33		4657+40.58	+06	AQ. REMOVAL & BUTT STRAP	316.54		
42	CLOSURE SECTION W/ BEVEL ENDS. SEE G-7	NEW STEEL	13.52'	13.52'		4657+02.25			316.54		
41	PIPE CLASS A-125	568 FIRST ST.	16.08'	15.98'		4656+88.73		4" 30' BEVEL DN. PULL 0°-30' DN.	316.59		
40		567 FIRST ST.	16.07'	15.98'		4656+72.75			315.11		
39	A-125	564 FIRST ST.	16.12'	15.98'		4656+56.77			313.65		
38		563 FIRST ST.	16.12'	15.98'		4656+40.79			312.21		
37	A-125	562 FIRST ST.	16.12'	15.98'		4656+24.81			310.78		
36		561 FIRST ST.	16.05'	15.98'		4656+08.83			309.34		
35	A-125	560 FIRST ST.	15.97'	15.98'		4655+92.85			307.91		
34		559 FIRST ST.	15.96'	15.98'		4655+76.87		PULL 0°-30' DN.	306.47		
33	A-125	182 BROWN AVE	16.01'	15.98'		4655+60.89			305.01		
32		156 BROWN AVE.	16.01'	15.94'		4655+44.91		PULL 0°-30' UP	303.55		
31	STEEL SPECIAL W/ M.H. BLOW-OFF & 4" 30' BEVEL UP. SEE G-6 & G-8 NEW STEEL	10814 BROWN AVE.	16.08'	16.08'		4655+28.97 +26.83 +21.83		4" 30' BEVEL UP PULL 0°-30' UP	302.09		
30	B-125	157 BROWN AVE.	16.05'	16.05'		4655+12.89		8" NOZZLE 20" MANHOLE	301.87		
29		160 BROWN AVE.	16.03'	16.03'		4654+96.84			301.95		
28	B-125	154 BROWN AVE.	16.03'	16.03'		4654+80.81			302.00		
27		166 BROWN AVE.	16.00'	16.04'		4654+64.78			302.04		
26	16' CONCRETE SECTION B-125	165 BROWN AVE	16.04'	16.04'		4654+48.74			302.09		
25		302 AM. PIPE	16.04'	16.04'		4654+32.70			302.07		
24	16' CONCRETE SECTION W/ 1°-30' BEVEL UP	161 BROWN AVE.	16.08'	16.04'		4654+16.66		1°-30' BEVEL UP PULL 0°-24' UP	302.13		
23	B-125	164 BROWN AVE.	16.05'	15.97'		4654+00.62		1°-30' BEVEL UP PULL 0°-24' UP	302.57		
22		555 FIRST ST.	16.00'	16.02'		4653+84.65			303.58		
21	B-125	554 FIRST ST.	16.03'	16.02'		4653+68.63			304.66		
20		553 FIRST ST.	16.05'	16.04'		4653+52.61			305.74		
19	B-125	551 FIRST ST.	15.98'	15.98'		4653+36.57			306.83		
18		179 BROWN AVE.	16.02'	16.01'		4653+20.59			307.91		
17	16' CONCRETE SECTION A-125	169 BROWN AVE.	16.02'	16.01'		4653+04.58			308.99		
16	16' CONCRETE SECTION W/ 1°-30' BEVEL DN.	557 FIRST ST.	15.78'	15.89'		4652+88.57			310.07		
15	A-125	175 BROWN AVE.	16.03'	16.03'		4652+72.68		1°-30' BEVEL DN. PULL 0°-20' DN.	311.14		
14		180 BROWN AVE	16.10'	16.09'		4652+56.65			311.69		
13	A-125	171 BROWN AVE.	16.03'	16.03'		4652+40.56			312.24		
12		178 BROWN AVE.	16.04'	16.03'		4652+24.53		PULL 0°-11'-30" RT.	312.79		
11	16' CONCRETE SECTION W/ 1°-30' BEVEL RT. A-125	566 FIRST ST.	15.95'	15.62'		4652+08.50		PULL 0°-30' RT.	313.34		
10		177 BROWN AVE.	16.04'	16.04'		4651+92.88		1°-30' BEVEL RT. PULL 0°-30' RT.	313.88		
9	A-125	192 BROWN AVE.	16.10'	16.04'		4651+76.84		PULL 0°-30' RT.	314.43		
8		193 BROWN AVE.	16.04'	16.04'		4651+60.80		PULL 0°-10' UP	314.98		
7	A-125	191 BROWN AVE.	16.05'	16.01'		4651+44.76		PULL 0°-30' UP	315.58		
6		190 BROWN AVE.	15.97'	16.03'		4651+28.76		PULL 0°-30' SOUTH PULL 0°-30' UP	316.31		
5	1H A-100	542 FIRST ST.	15.97'	15.90'		4651+12.72			317.18		
4		189 BROWN AVE.	16.08'	16.02'		4650+96.82		1°-30' BEV. NORTH PULL 0°-30' SOUTH	318.00		
3	A-125	174 BROWN AVE.	16.03'	16.02'		4650+80.80		PULL 0°-30' SOUTH	318.83		
2		176 BROWN AVE.	16.03'	16.02'		4650+64.78		PULL 0°-15' SOUTH PULL 0°-24' DN.	319.66		
1	CLOSURE SECTION W/ BEVEL ENDS & 10" NOZZLE. SEE G-7 & G-9.	NEW STEEL	16.28'	15.81'		4650+48.76 +45.76		5°-00' BEVEL DN. PULL 0°-30' DN. 10" NOZZLE WELD; 5°-30' BEVEL DN.	320.44		
	EXISTING AQ. NO. 1 END 98" O.D. INSIDE 108"		35.60'	35.70'		4650+32.95		AQ. REMOVAL 4650+32	319.80		
PIPE NO.	REMARKS	SALVAGED PIPE NO.	SLOPE	HORIZ.	STATION	END STEEL 4649+97.25 PLAN				INV. ELEV.	
108" I.D.		658.01	TOTALS	744.96	743.32	= 743.33					
98" O.D.		80.95	LAFAYETTE AQUEDUCT NO. 1								
98" O.D. x 108" I.D. TAPERS		6.00									
TOTAL		744.96									

U.S.C. & G.S. DATUM									
569	EXISTING AQ. NO. 2								
42	CLOSURE SECTION W/ BEVEL ENDS. SEE G-7	NEW STEEL	16.47'	16.47'	132+41.11		4°-30' BEVEL LT. PULL 0°-15'-25" LT.	311.58	
41		158 BROWN AVE	16.00'	16.00'	132+24.64		4°-30' BEVEL LT. PULL 0°-06'-28" LT.	311.60	
40	16' CONCRETE SECTION W/ 4°-30' BEVEL DN.	528 FIRST ST.	15.28'	15.23'	132+08.64		4°-30' BEVEL DN.	311.50	
39		159 BROWN AVE	16.09'	16.05'	131+93.41			310.31	
38		313 AM. PIPE	16.10'	16.05'	131+77.36			309.15	
37		311 AM. PIPE	16.10'	16.05'	131+61.31			307.82	
36	8' CONCRETE SECTION	527 FIRST ST.	8.02'	8.00'	131+45.26			306.57	
35		312 AM. PIPE	16.11'	16.05'	131+37.26			305.98	
34		309 AM. PIPE	16.09'	16.04'	131+21.21		PULL 0°-30' DN.	304.61	
33	16' CONCRETE SECTION	314 AM. PIPE	16.10'	16.04'	131+05.17			303.31	
32	SALVAGED STEEL SPECIAL W/ M.H. NOZZLE & 4°-30' BEVEL UP.	10815 BROWN AVE.	16.30'	16.30'	130+82.13 +28.25 +21.25		4°-30' BEVEL UP PULL 0°-30' UP 8" NOZZLE 20" MANHOLE	301.93	
31		308 AM. PIPE	16.02'	16.02'	130+72.83			301.89	
30		307 AM. PIPE	16.02'	16.02'	130+56.81			301.87	
29		303 AM. PIPE	16.03'	16.03'	130+40.79			301.95	
28		305 AM. PIPE	16.02'	16.02'	130+24.76			301.95	
27		304 AM. PIPE	16.02'	16.02'	130+08.74			301.91	
26	16' CONCRETE SECTION	306 AM. PIPE	16.04'	16.02'	129+92.72		PULL 0°-30' UP	301.92	
25	16' CONCRETE SECTION W/ 4°-30' BEVEL UP	552 FIRST ST.	16.07'	16.02'	129+76.70		4°-30' BEVEL UP PULL 0°-30' UP	302.17	
24		301 AM. PIPE	16.08'	16.00'	129+60.68		PULL 0°-27' UP	303.50	
23		20 AM. PIPE	16.09'	16.00'	129+44.68			305.12	
22		21 AM. PIPE	16.07'	15.99	129+28.68			306.84	
21		22 AM. PIPE	16.07'	15.99	129+12.69			308.44	
20	16' CONCRETE SECTION	23 AM. PIPE	16.08'	16.00'	128+96.70		WELDED JOINT 1°-30' BEVEL RT.	310.08	
19	16' CONCRETE SECTION W/ 1°-30' BEVEL RT.	565 FIRST ST.	16.06'	15.79'	128+80.70		PULL 0°-13' LT.	311.72	
18	16' CONCRETE SECTION	189 BROWN AVE.	16.10'	15.00'	128+64.91			313.46	
17	STEEL SPECIAL W/ 4°-30' BEVEL RT. SEE G-6 CLASS A STEEL	10816 BROWN AVE.	15.04'	14.97'	128+48.91		4°-30' BEVEL RT. PULL 0°-30' RT	315.26	
16	STEEL SPECIAL W/ 4°-30' BEVEL RT. SEE G-6 CLASS A STEEL	10816 BROWN AVE.	14.66'	14.59'	128+33.94		5°-30' RT WELDED JOINT	316.75	
15		183 BROWN AVE.	16.05'	15.96	128+19.35		4°-30' BEVEL RT. PULL 0°-30' RT	318.19	
14		186 BROWN AVE.	16.05'	15.97'	128+03.39		PULL 0°-30' RT.	320.00	
13		184 BROWN AVE.	16.03'	15.96'	127+87.42		PULL 0°-30' DN.	321.65	
12	16' CONCRETE SECTION	187 BROWN AVE.	16.02'	15.97'	127+71.46		PULL 0°-30' DN.	323.12	
11	16' CONCRETE SECTION W/ 10" NOZZLE & 4°-30' BEVEL DN. SEE G-2	538 FIRST ST.	15.06'	15.06'	127+55.49 +43.43		4°-30' BEVEL DN. PULL 0°-30' DN. EXIST. 10" NOZZLE	324.42	
10		548 FIRST ST.	16.03'	16.03'	127+40.43		PULL 0°-15' DN.	324.40	
9		547 FIRST ST.	16.04'	16.04'	127+24.40			324.23	
8		546 FIRST ST.	16.03'	16.03'	127+08.36			324.18	
7		541 FIRST ST.	16.03'	16.03'	126+92.33			324.18	
6		544 FIRST ST.	16.04'	16.04'	126+76.30			324.04	
5	16' CONCRETE SECTION	181 BROWN AVE.	16.03'	16.03'	126+60.26			323.81	
4	8' CONCRETE SECTION W/ 4°-30' BEVEL DN.	537 FIRST ST.	7.32'	7.20'	126+44.23		4°-30' BEVEL DN. PULL 0°-30' UP	323.63	
3	16' CONCRETE SECTION	540 FIRST ST.	16.08'	16.05'	126+36.93			323.07	
2	16' CONCRETE SECTION W/ 4°-30' BEVEL DN.	536 FIRST ST.	15.33'	15.17'	126+20.88		4°-30' BEVEL DN. PULL 0°-30' UP	322.05	
1	CLOSURE SECTION W/ BEVEL ENDS. SEE G-7	NEW STEEL	14.05'	13.86'	126+05.71		4°-30' BEVEL LT. WELDED JOINT 4°-30' BEVEL LT.	319.83	
526	EXISTING AQ. NO. 2				125+97.99			317.51	
TOTAL LENGTHS			651.32	649.26	649.26				
PIPE NO.	REMARKS	SALVAGED PIPE NO.	SLOPE	HORIZ.	STATION	PLAN	INV. ELEV.		
		PRESENT LOCATION		DISTANCE					



TYPICAL GIRTH JOINTS



* CLASS E IS A 150 P.S.I. FLANGE THAT IS WHAT IS ON SECTION #1 OF AQUE. #1. THIS FLANGE SHOULD HAVE BEEN 275 P.S.I. FLANGE. (THE ONLY ONE IN THE AQUEDUCT SYSTEM.) A 275 P.S.I. FLANGE IS ON SECTION #11 OF AQUE. #2.

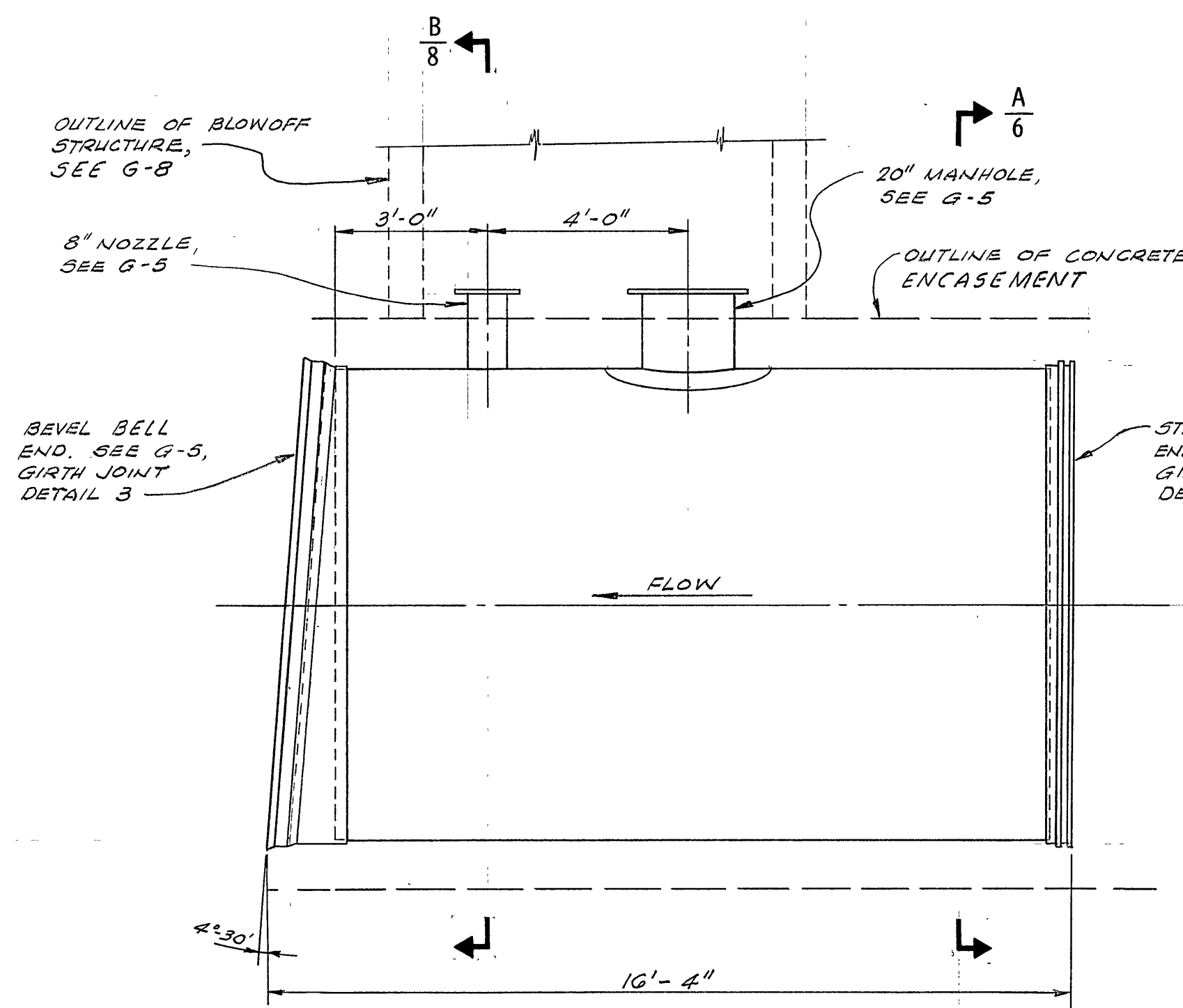
NOTES

- FOR LOCATION OF GIRTH JOINTS, SEE LAYING DETAILS ON G-4.
- ALL JOINTS OF SALVAGED CONCRETE PIPE AND BONDING JUMPER CONNECTIONS SHALL BE RENOVATED AS DESCRIBED IN THE SPECIFICATIONS.
- NEW BELL AND SPIGOT RINGS SHALL BE FURNISHED BY THE CONTRACTOR ON NEW STEEL AND SALVAGED STEEL PIPE WHERE NECESSARY.
- NEW RUBBER GASKETS SHALL BE FURNISHED BY THE CONTRACTOR ON ALL BELL AND SPIGOT JOINTS, WHETHER ON NEW OR SALVAGED PIPE.
- BONDING JUMPERS ARE 500 MCM RR USE CABLE W/TERMINAL LUGS T & B 54118. FORM PARTIAL LOOP FOR EXPANSION. WELD OR BRAZE IN PLACE. COVER ALL BARE METAL WITH TWO COATS OF COAL TAR EPOXY AFTER WELDING, LAPPING ADJACENT CONCRETE OR INSULATION 1" OR MORE. EXISTING BONDING JUMPERS MAY BE RE-USED IF THEY ARE IN GOOD CONDITION AND ARE APPROVED BY THE ENGINEER.

S-1483 PIPE MFG. DWGS.

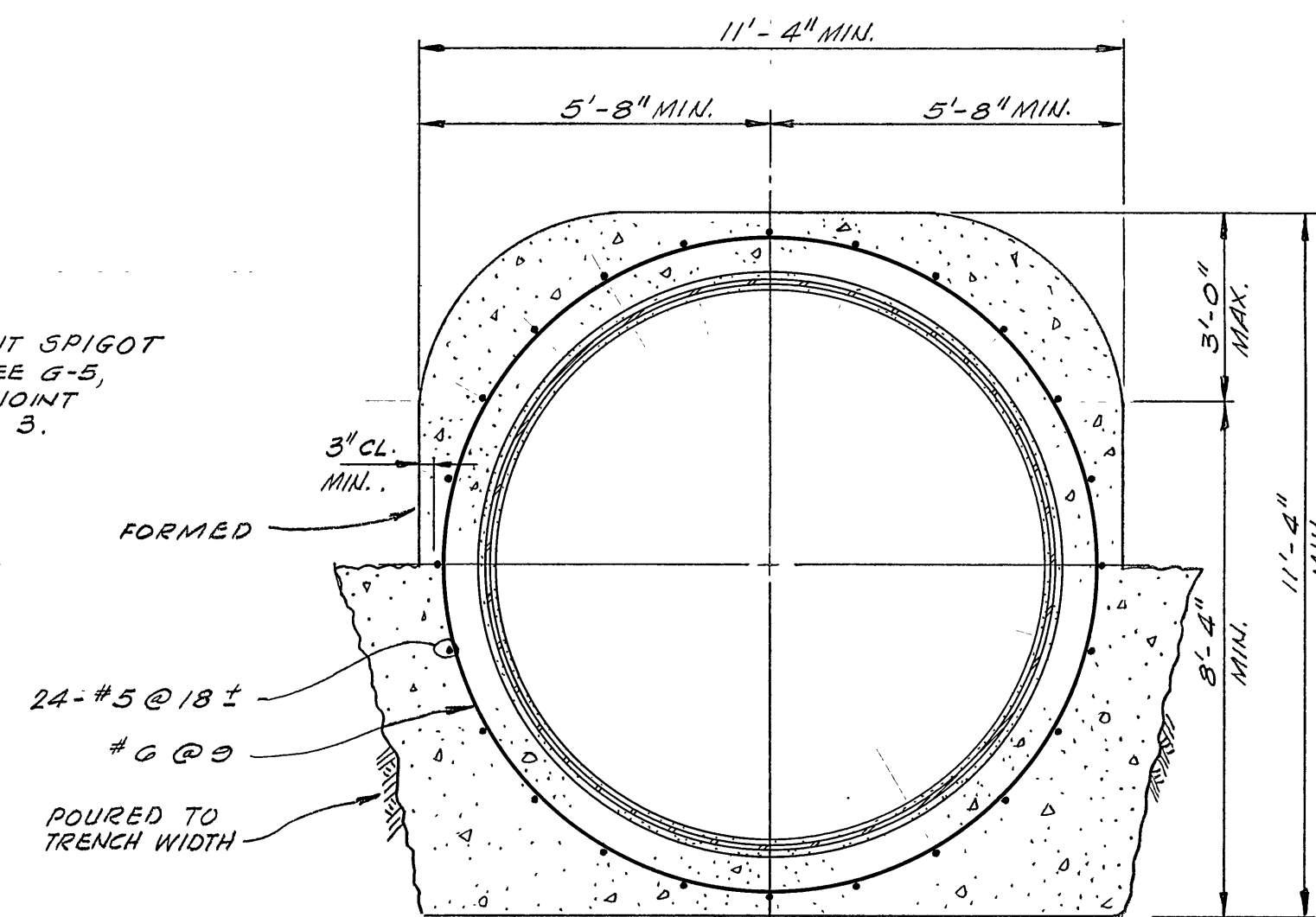
APPROVED *[Signature]* CHIEF ENGINEER R.C.E. NO. 14167

DESIGNED BY <i>David A. Dukins</i>	EAST BAY MUNICIPAL UTILITY DISTRICT	
DRAWN BY <i>C. ASVITT</i>	OAKLAND, CALIFORNIA	
CHECKED BY <i>J. Tom</i>	LAFAYETTE AQUEDUCTS	
CORROSION CHECK BY <i>W. Workback</i>	RELOCATION AT FIRST ST.	
PROJECT ENGR. <i>C.F. Gerber</i>	PIPE DETAILS	
SUPERVISOR <i>[Signature]</i>	SH. 1 OF 2	
MECH. & ELEC. DESIGN <i>[Signature]</i>	STRUCTURE OR	
SUPERVISOR DESIGN <i>[Signature]</i>	SCALE AS SHOWN	
MANAGER DESIGN ENGR. <i>R. Sallabean</i>	DATE 15 MAR 68	
MANAGER WATER PROD. & DIST. <i>[Signature]</i>	5449-G-5	



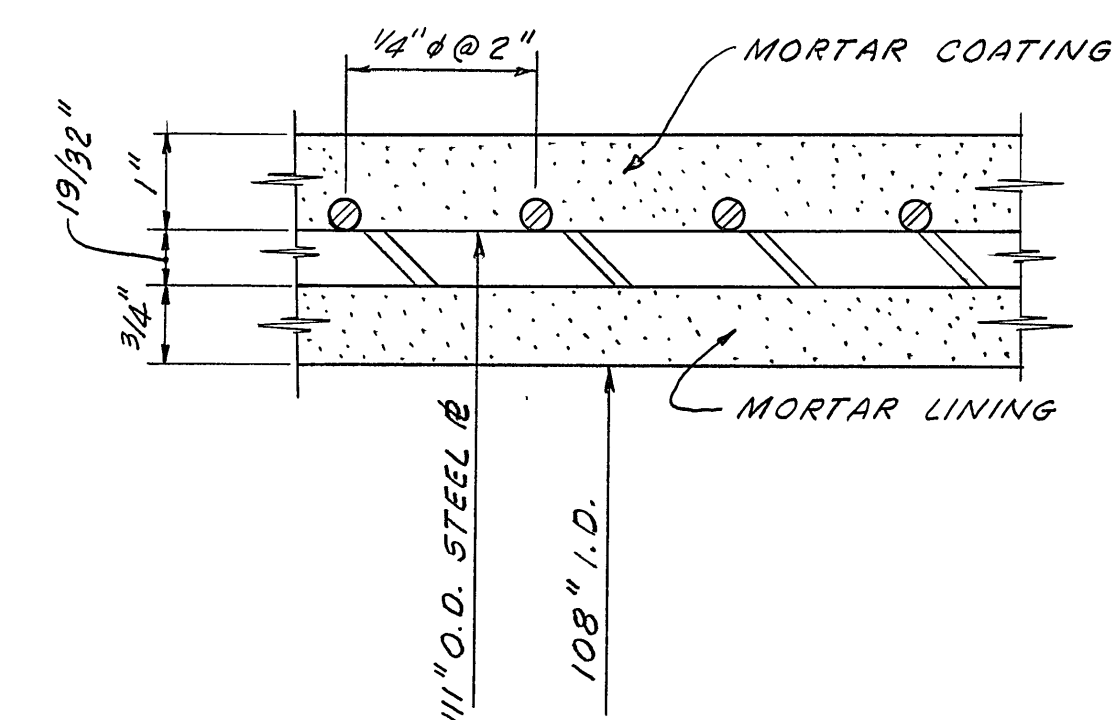
PROFILE - PIPE NO. 31

LAFAYETTE AQUEDUCT NO. 1

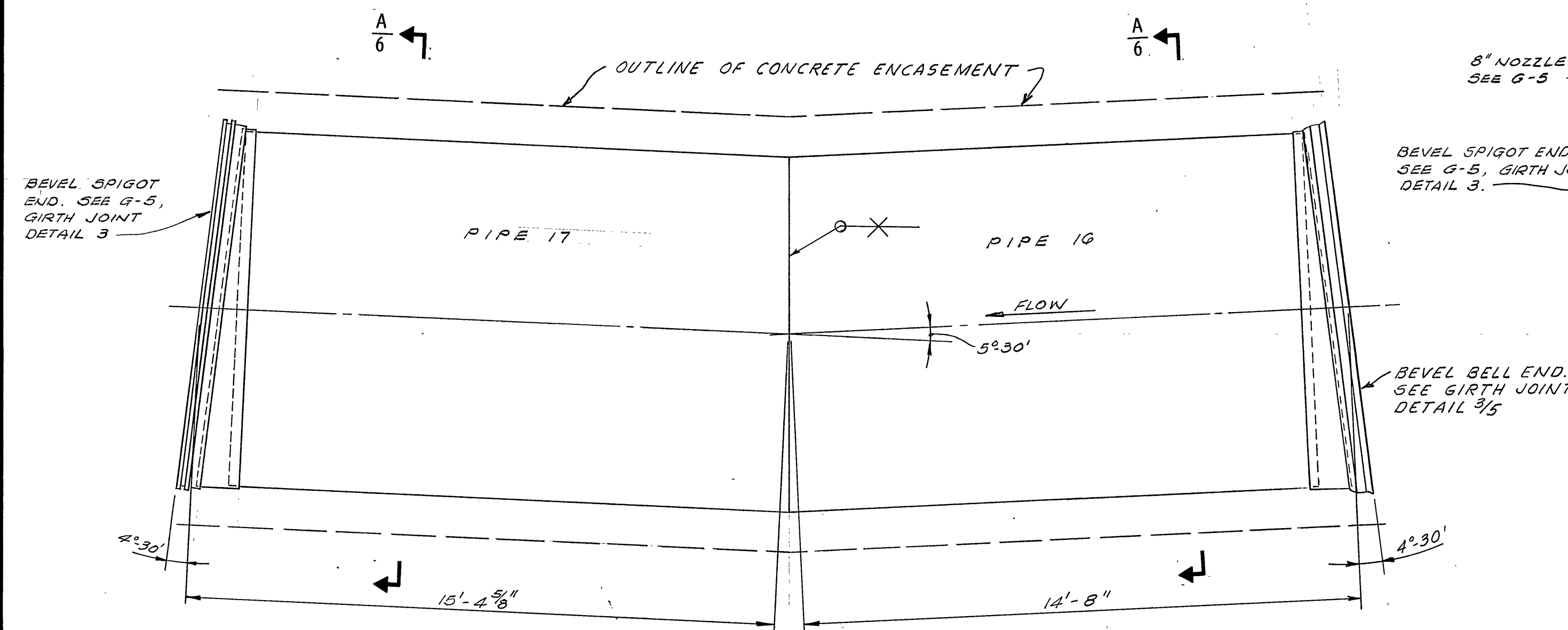


CONCRETE ENCASEMENT FOR SALVAGED STEEL PIPE

SECTION A A

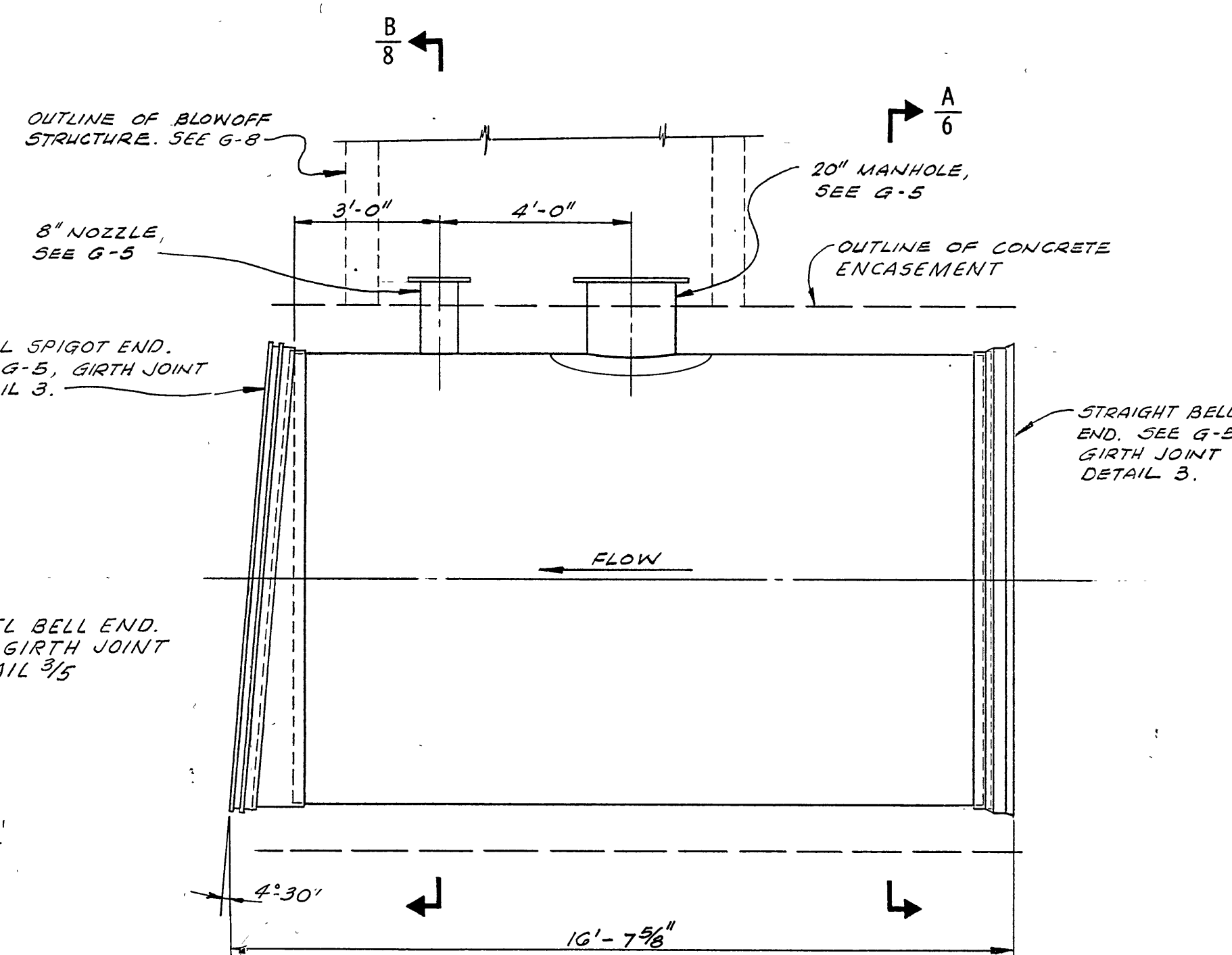


LONGITUDINAL SECTION OF SALVAGED STEEL PIPE



PLAN - PIPE NOS. 16 & 17

LAFAYETTE AQUEDUCT NO. 2



PROFILE - PIPE NO. 32

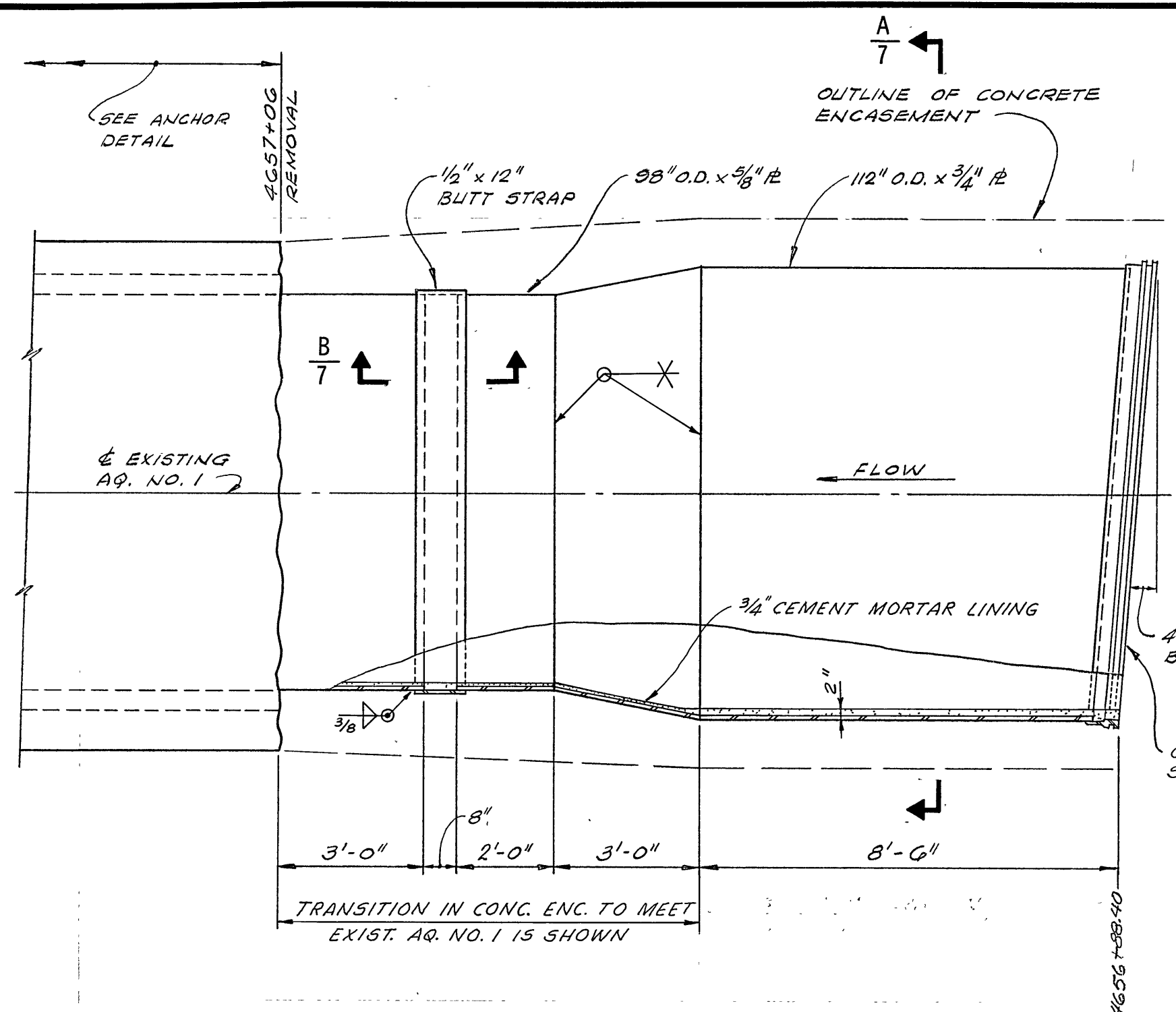
NOTES

1. ALL 108" NOMINAL DIAMETER PIPE SECTIONS, SHOWN ON THIS SHEET, SHALL BE FABRICATED FROM SALVAGED 108" MORTAR LINED AND COATED STEEL PIPE, THE LOCATION OF WHICH IS DESIGNATED IN THE PIPE LAYING DETAILS ON DRAWING G-4.
2. PRIOR TO FABRICATION, EXISTING MORTAR LINING AND COATING SHALL BE CUT BACK 6" MINIMUM FROM ENDS REQUIRING FIELD WELDING.
3. DAMAGED MORTAR LINING SHALL BE REPAIRED PRIOR TO INSTALLING THE PIPE.

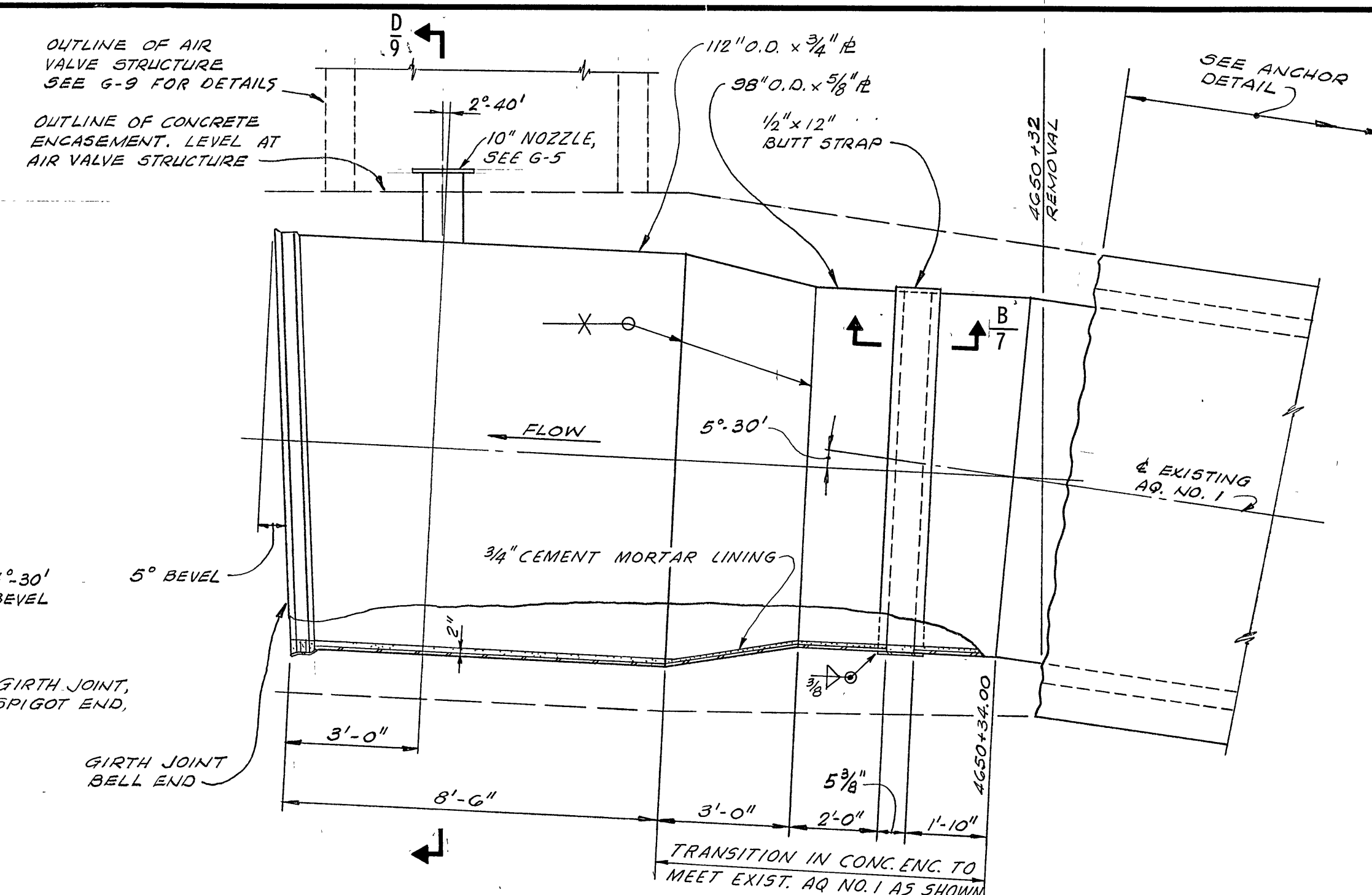
APPROVED: *[Signature]* CHIEF ENGINEER R.C.E. NO. 14167

DESIGNED BY <i>[Signature]</i>	EAST BAY MUNICIPAL UTILITY DISTRICT
DRAWN BY C. YAMASAKI	OAKLAND, CALIFORNIA
CHECKED BY <i>[Signature]</i>	LAFAYETTE AQUEDUCTS
CORROSION CHECK BY A. Westerbach	RELOCATION AT FIRST ST.
PROJECT ENGR. C. F. Gierke	PIPE DETAILS
SUPERVISOR MECH. & ELEC. DESIGN <i>[Signature]</i>	SH. 2 OF 2
SUPERVISOR STRUCTURES DESIGN <i>[Signature]</i>	SCALE 3/8" = 1'-0"
MANAGER DESIGN ENGRG. <i>[Signature]</i>	DATE 15 MAR 68
MANAGER WATER PROD. & DIST. <i>[Signature]</i>	5449-G-6

NO.	DATE	REVISION	BY	APP.
25 JUL 73	IN SERVICE	AS BUILT	INS	
16 AUG 68	CORR. MEASUREMENT PTS. FOR PIPE LENGTH		CY	

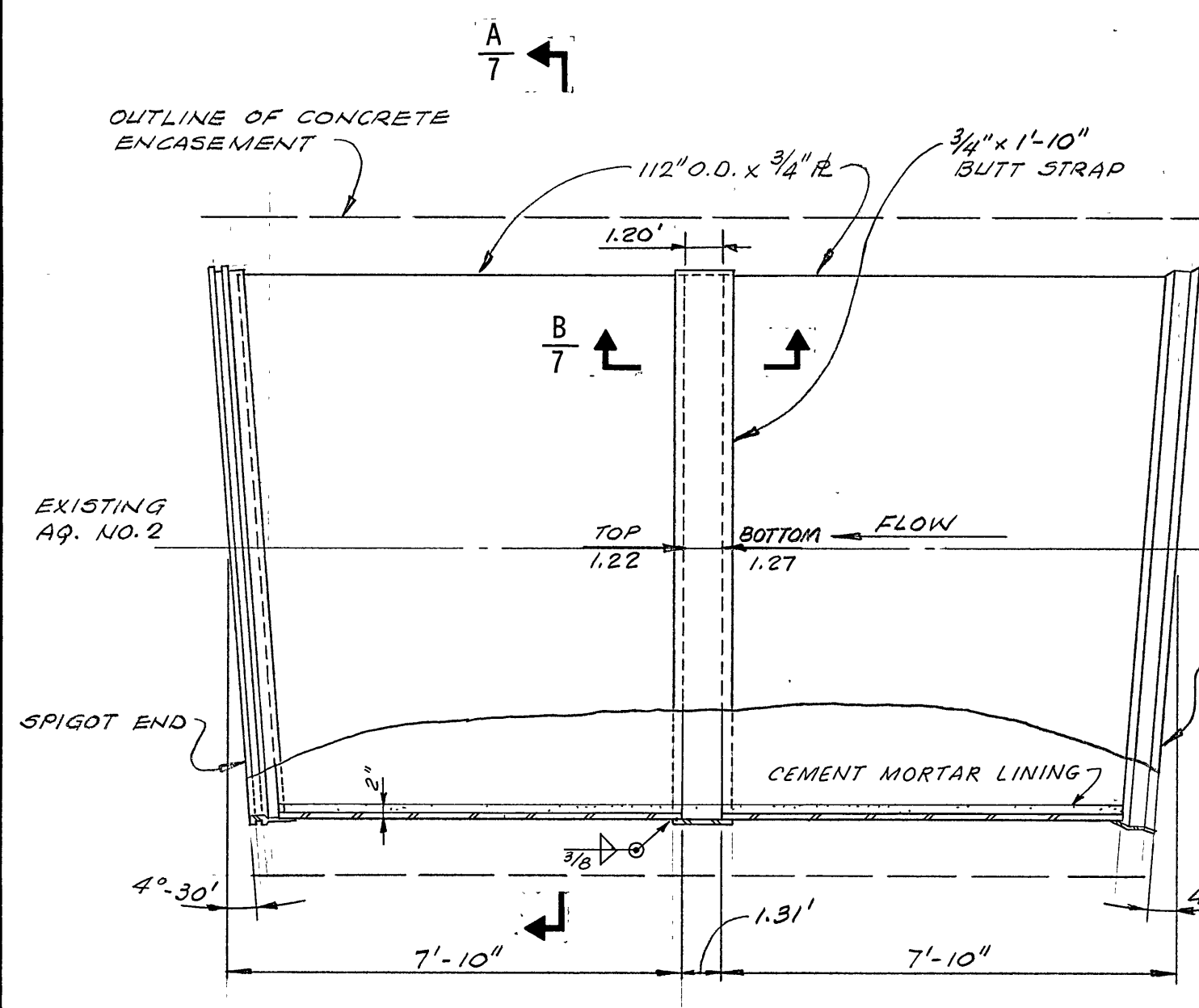


PROFILE - WEST END CLOSURE
PIPE NO. 42

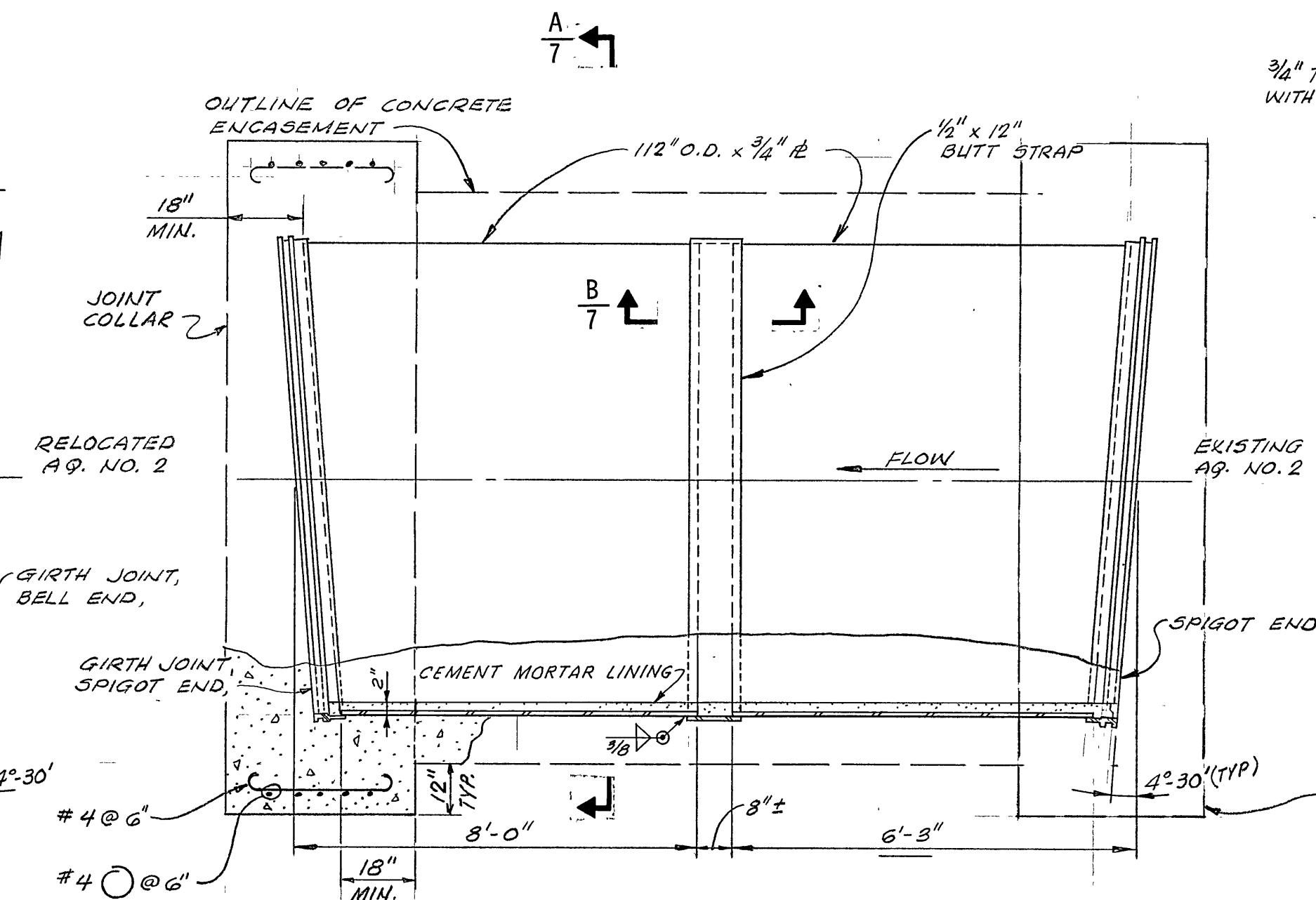


PROFILE - EAST END CLOSURE
PIPE NO. 1

LAFAYETTE AQUEDUCT NO. 1

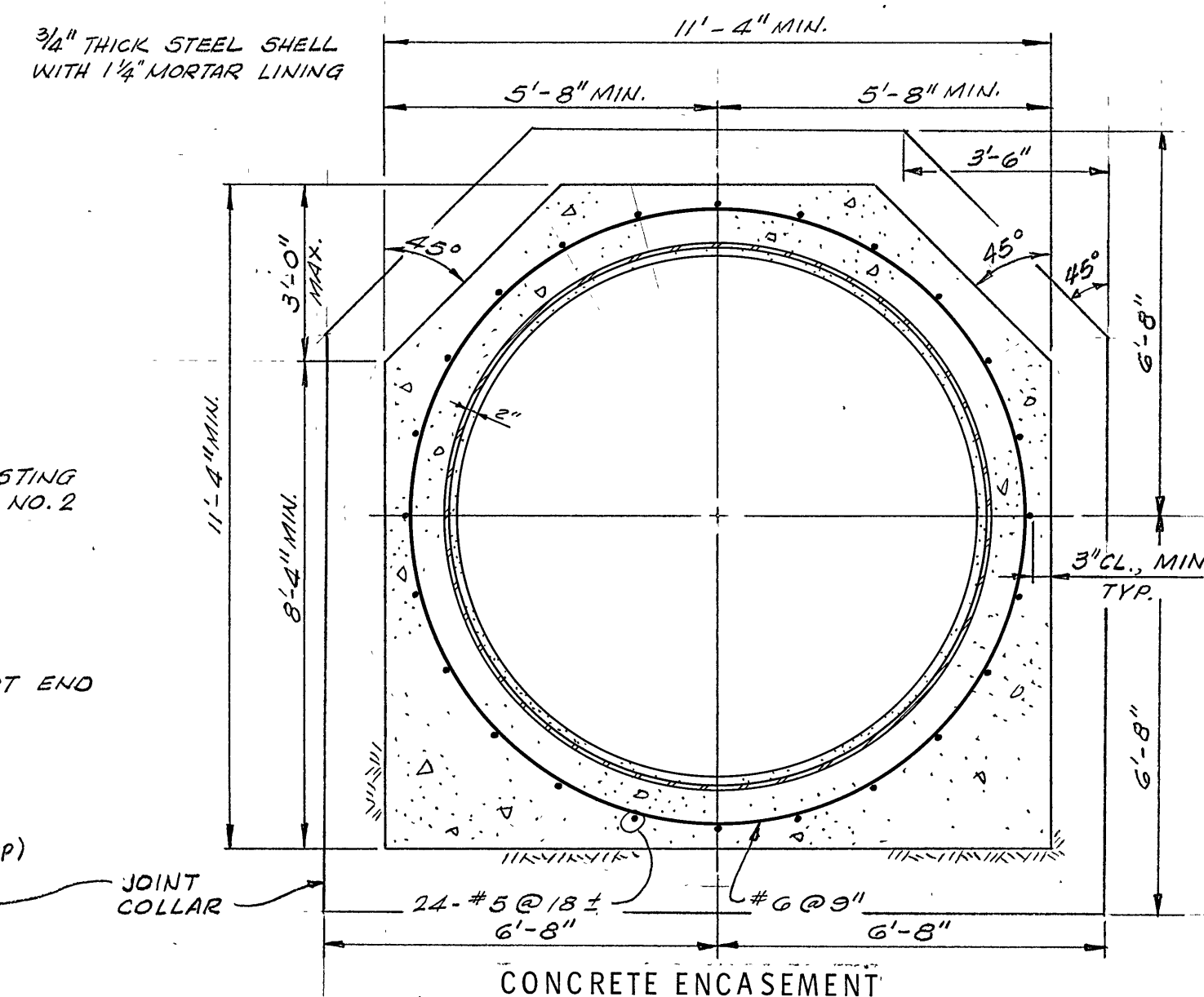


PLAN - WEST END CLOSURE
PIPE NO. 42

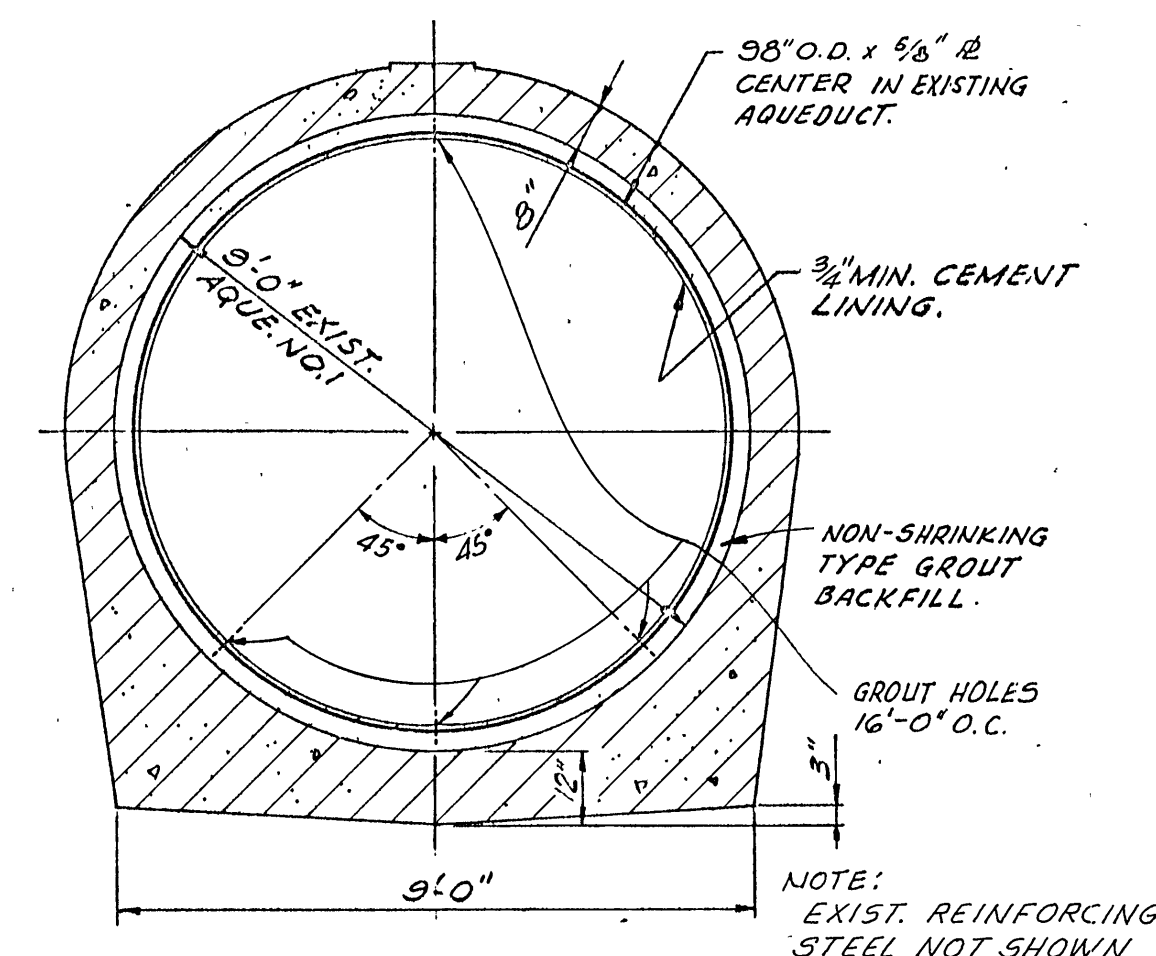


PLAN - EAST END CLOSURE
PIPE NO. 1

LAFAYETTE AQUEDUCT NO. 2



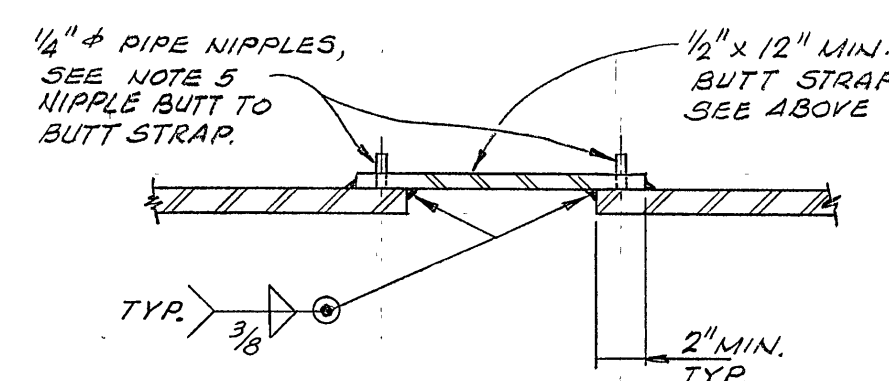
SECTION A
7



SECTION C
7

NOTES

- CONTRACTOR SHALL VERIFY DIMENSIONS OF EXISTING AQUEDUCTS IN THE FIELD PRIOR TO MAKING CONNECTIONS.
- ALL STEEL PIPE SHOWN ON THIS SHEET SHALL BE FABRICATED FROM NEW STEEL PLATE AS SHOWN IN THE SECTIONS AND DETAILS.
- BELL AND SPIGOT ENDS SHOWN ON PIPE SECTIONS ON THIS SHEET SHALL BE AS DETAILED FOR GIRTH JOINTS SHOWN ON G-5.
- CEMENT MORTAR LINING APPLIED IN THE SHOP SHALL BE HELD BACK 6" MINIMUM FROM ENDS WHERE FIELD WELDING IS REQUIRED. FOR REIN. OF HAND APPLIED LINING, SEE SPECIFICATIONS.
- PROVIDE 1/2" DIAMETER PIPE NIPPLES FOR AIR TEST OF EACH BUTT STRAP JOINT AFTER WELDING.

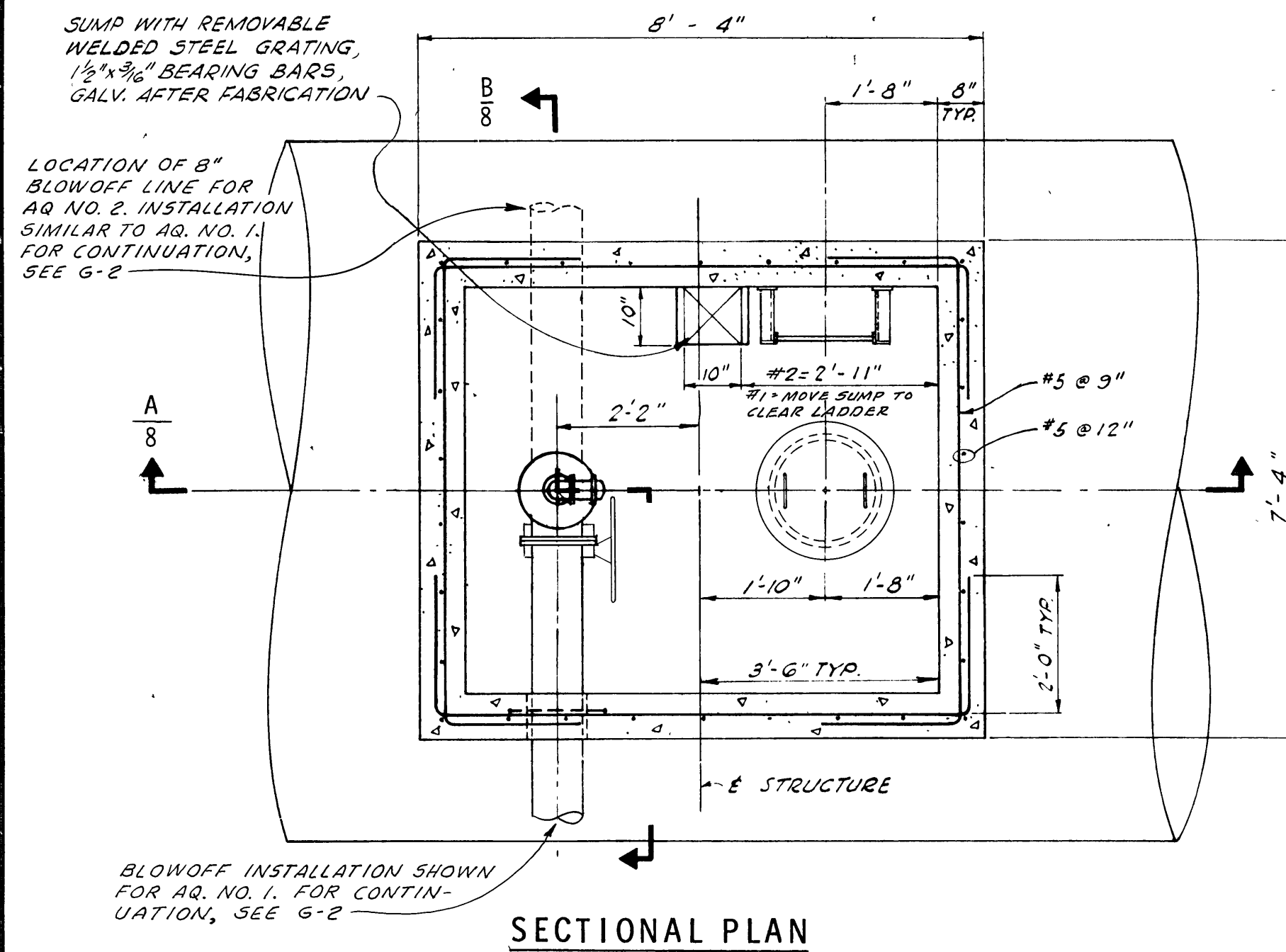


SECTION B
7

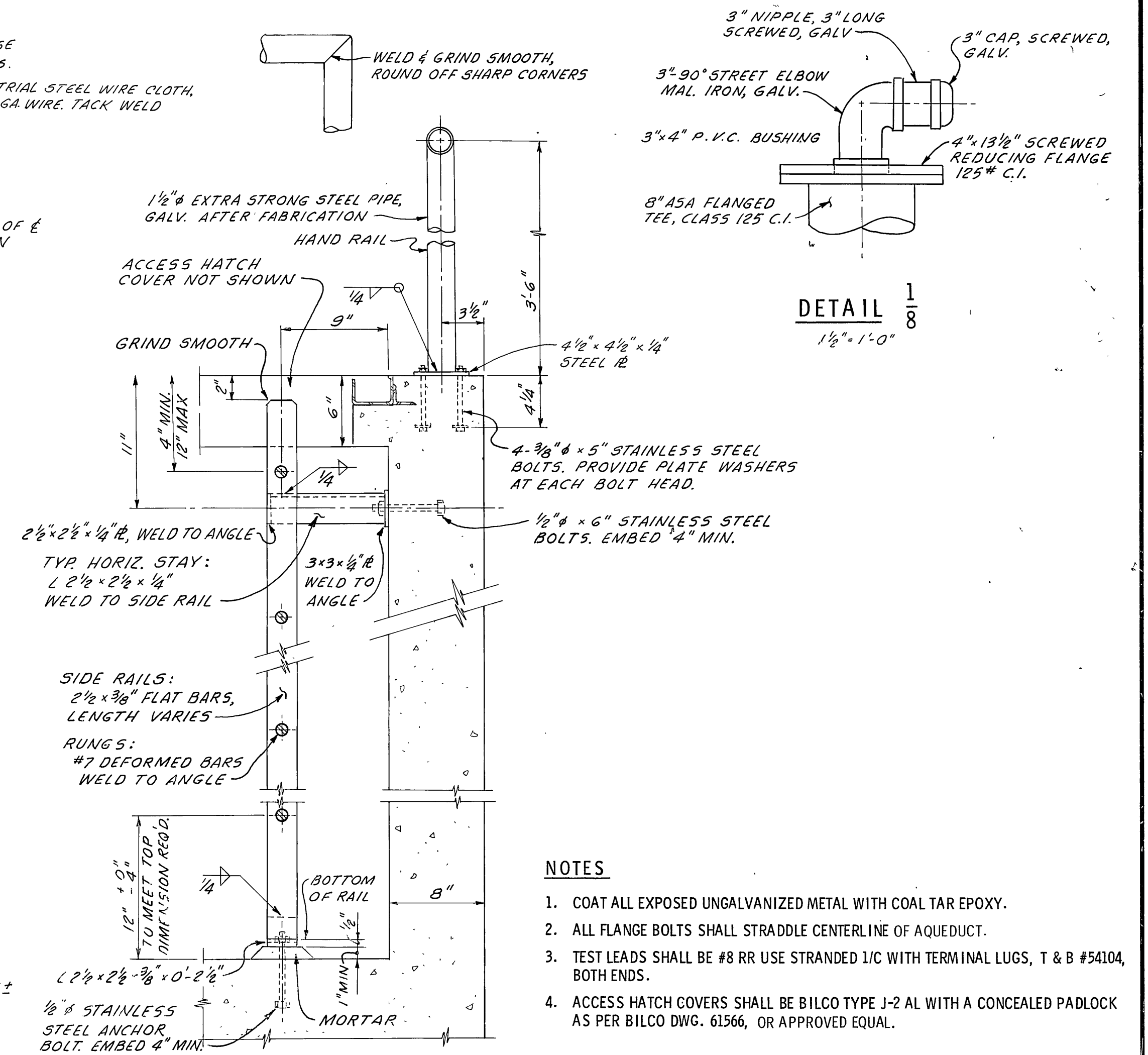
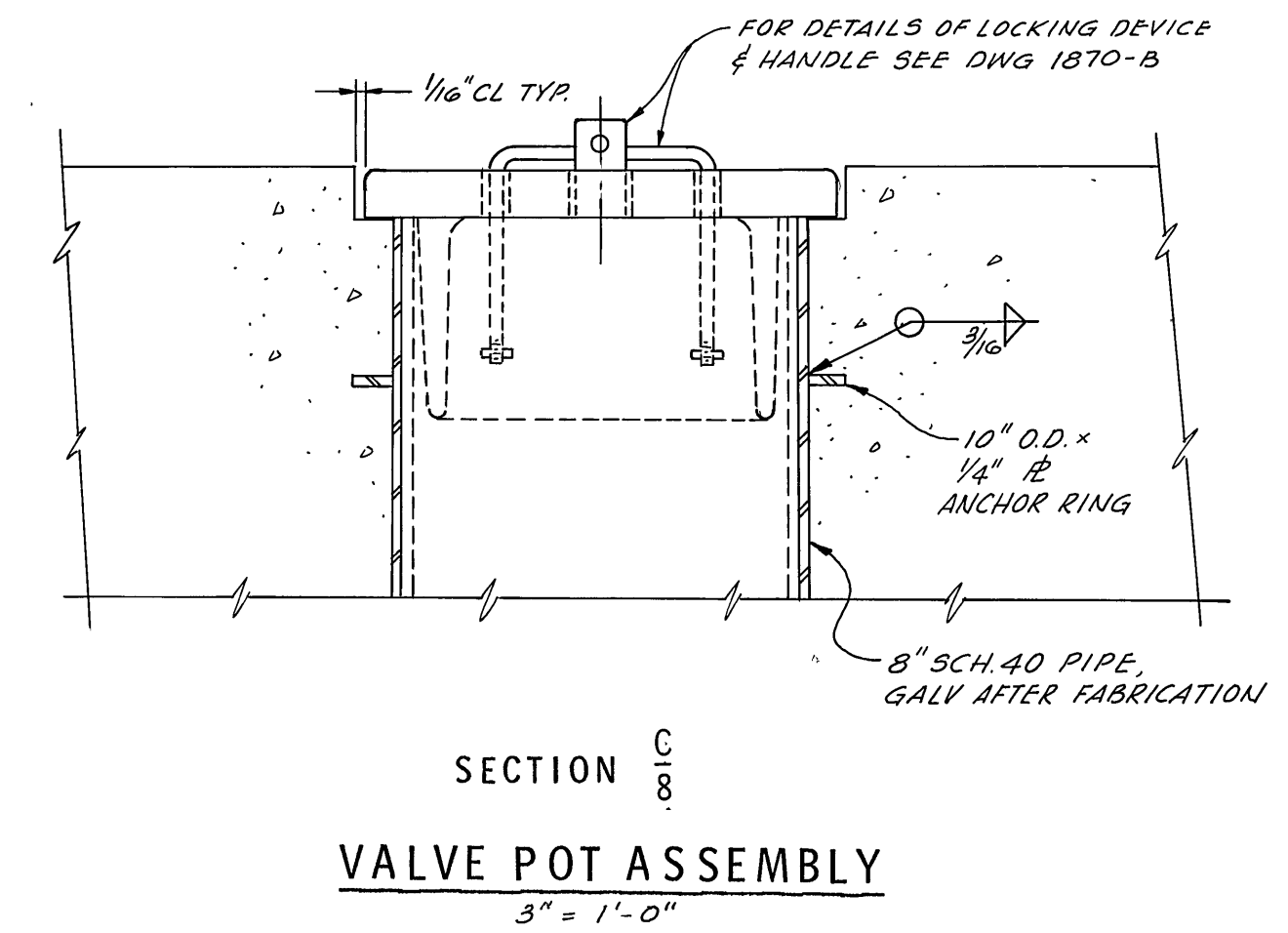
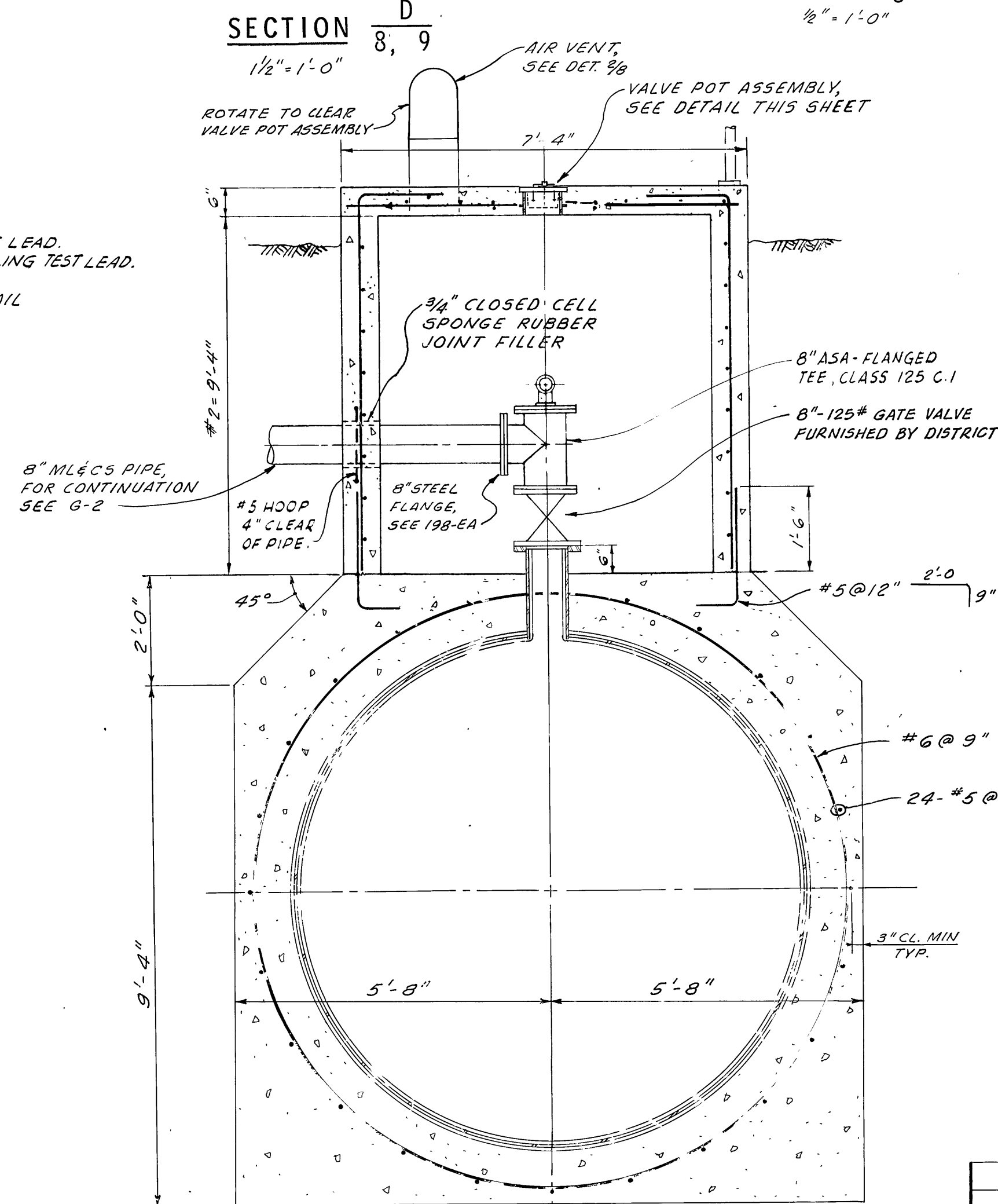
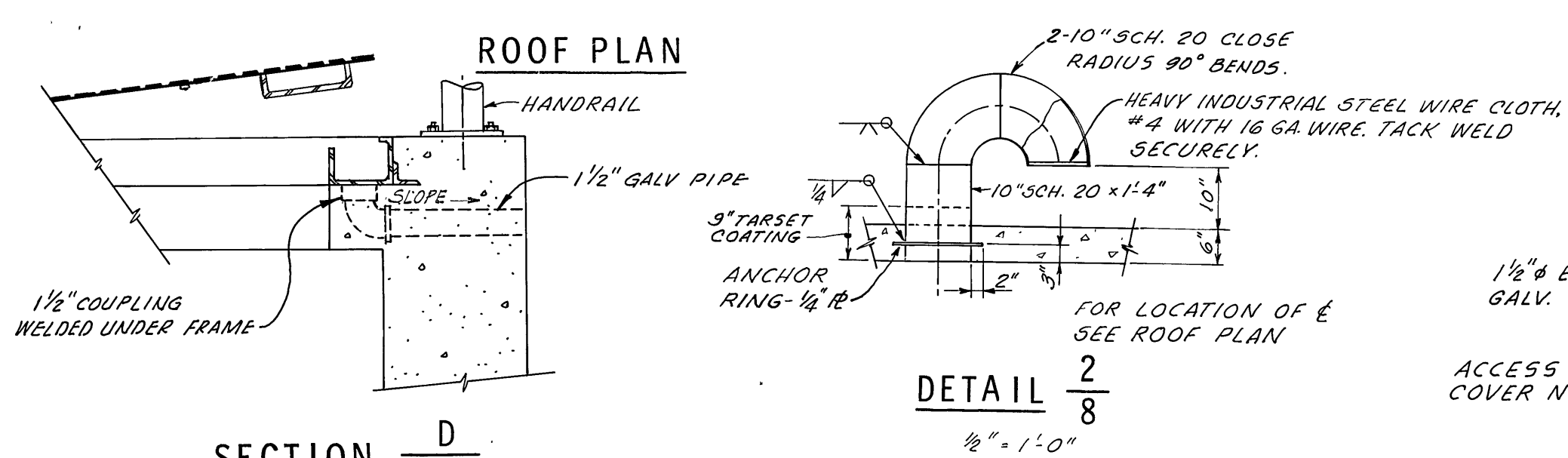
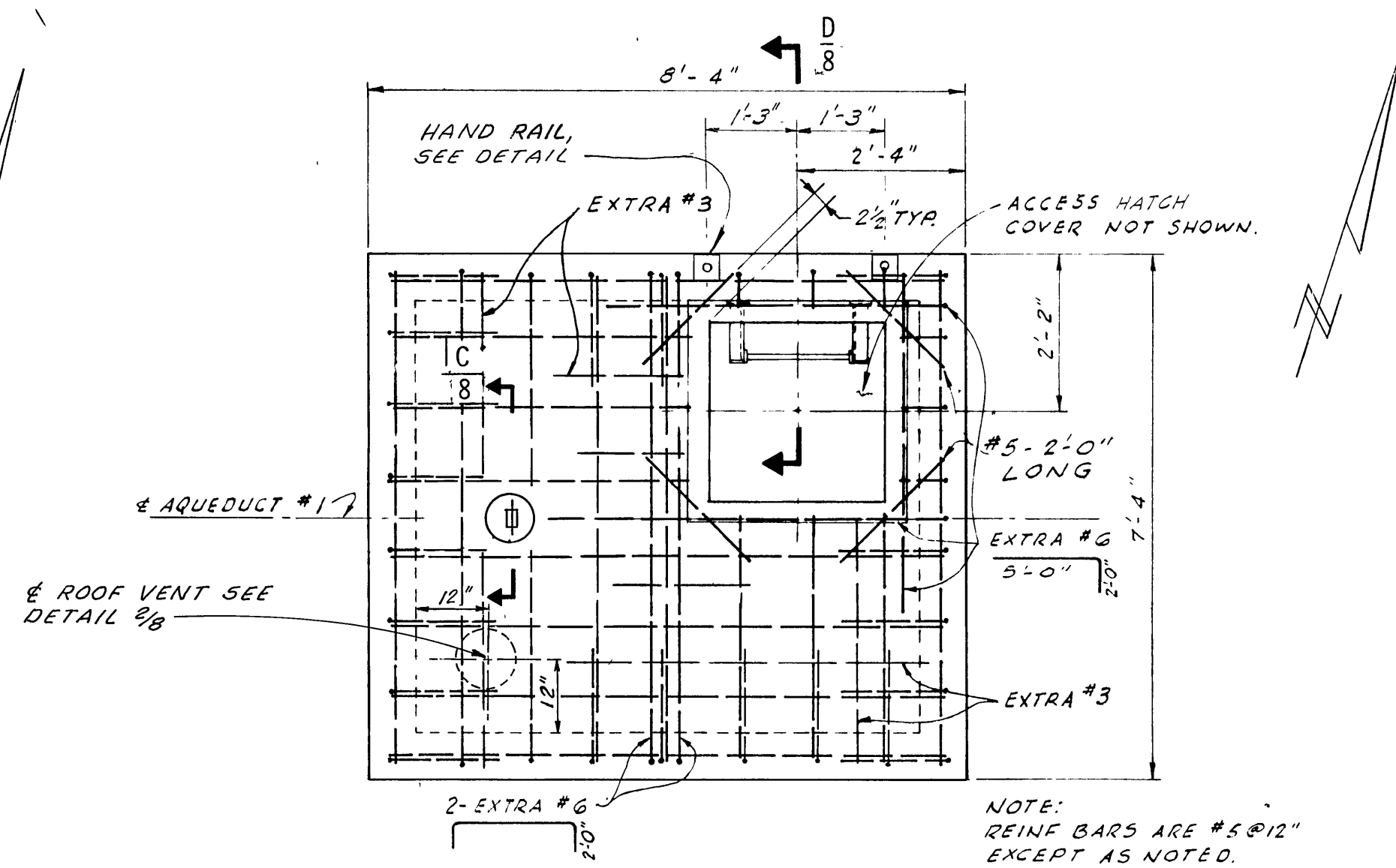
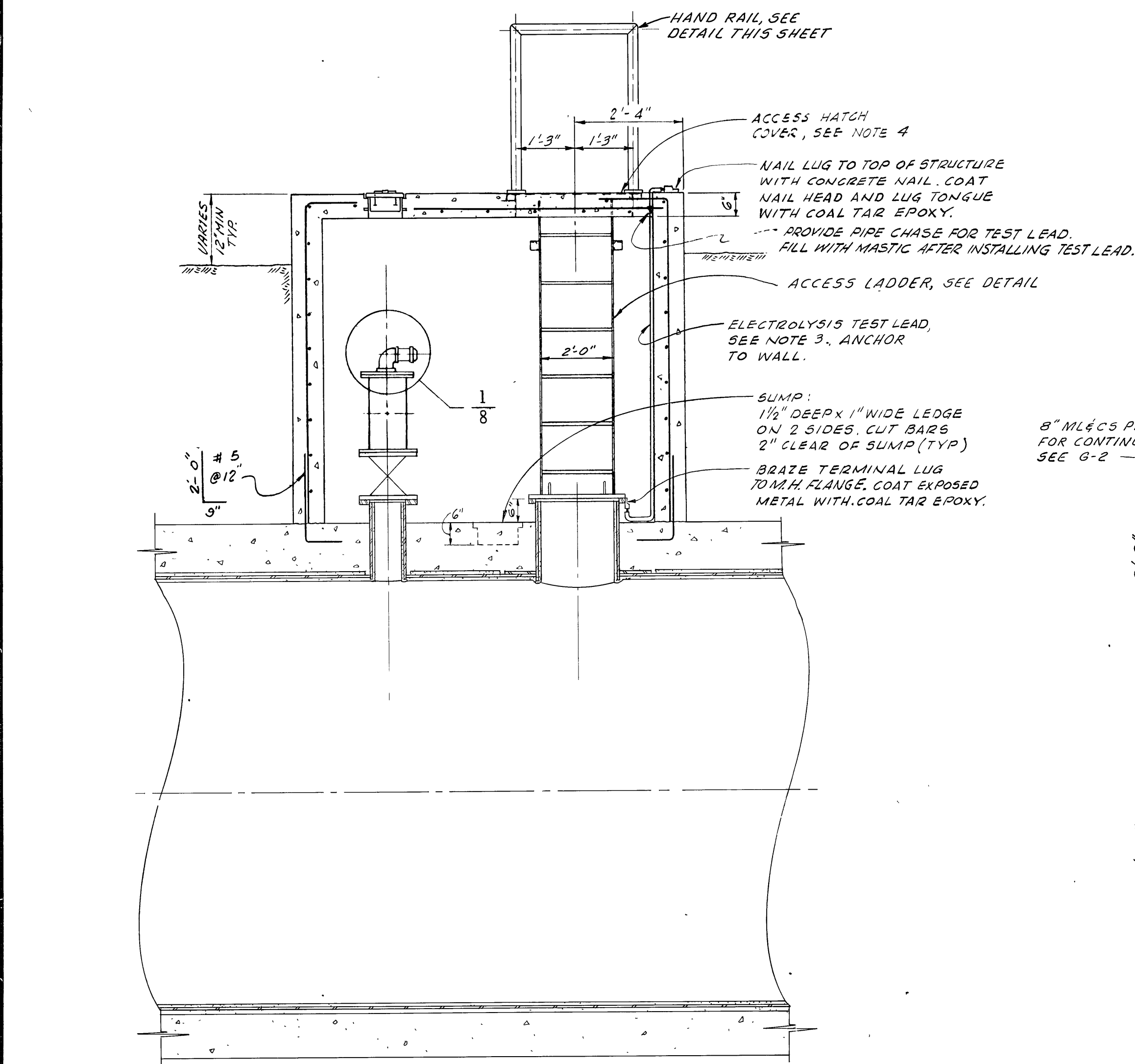
APPROVED: *[Signature]*
CHIEF ENGINEER R.D.C. NO. 14167

DESIGNED BY <i>[Signature]</i>	EAST BAY MUNICIPAL UTILITY DISTRICT
DRAWN BY C. YAMASAKI	OAKLAND, CALIFORNIA
CHECKED BY J. TOM	LAFAYETTE AQUEDUCTS
CORROSION CHECK BY H. W. BAKER	RELOCATION AT FIRST ST.
PROJECT ENGR. C. F. GERTNER	CLOSURE SECTIONS AND DETAILS
SUPERVISOR MECH. & ELEC. DESIGN <i>[Signature]</i>	STRUCTURE OR ZONE DESIGNATION
SUPERVISOR STRUCTURES DESIGN <i>[Signature]</i>	SCALE 3/8" = 1'-0" & AS NOTED
MANAGER DESIGN ENGR. <i>[Signature]</i>	DATE 15 MAR 68
MANAGER WATER PROD. & DIST. <i>[Signature]</i>	

5449-G-7



BLOWOFF INSTALLATION SHOWN FOR AQ. NO. 1, FOR CONTINUATION, SEE G-2



- NOTES**
1. COAT ALL EXPOSED UNGALVANIZED METAL WITH COAL TAR EPOXY.
 2. ALL FLANGE BOLTS SHALL STRADDLE CENTERLINE OF AQUEDUCT.
 3. TEST LEADS SHALL BE #8 RR USE STRANDED 1/C WITH TERMINAL LUGS, T & B #54104, BOTH ENDS.
 4. ACCESS HATCH COVERS SHALL BE BILCO TYPE J-2 AL WITH A CONCEALED PADLOCK AS PER BILCO DWG. 61566, OR APPROVED EQUAL.

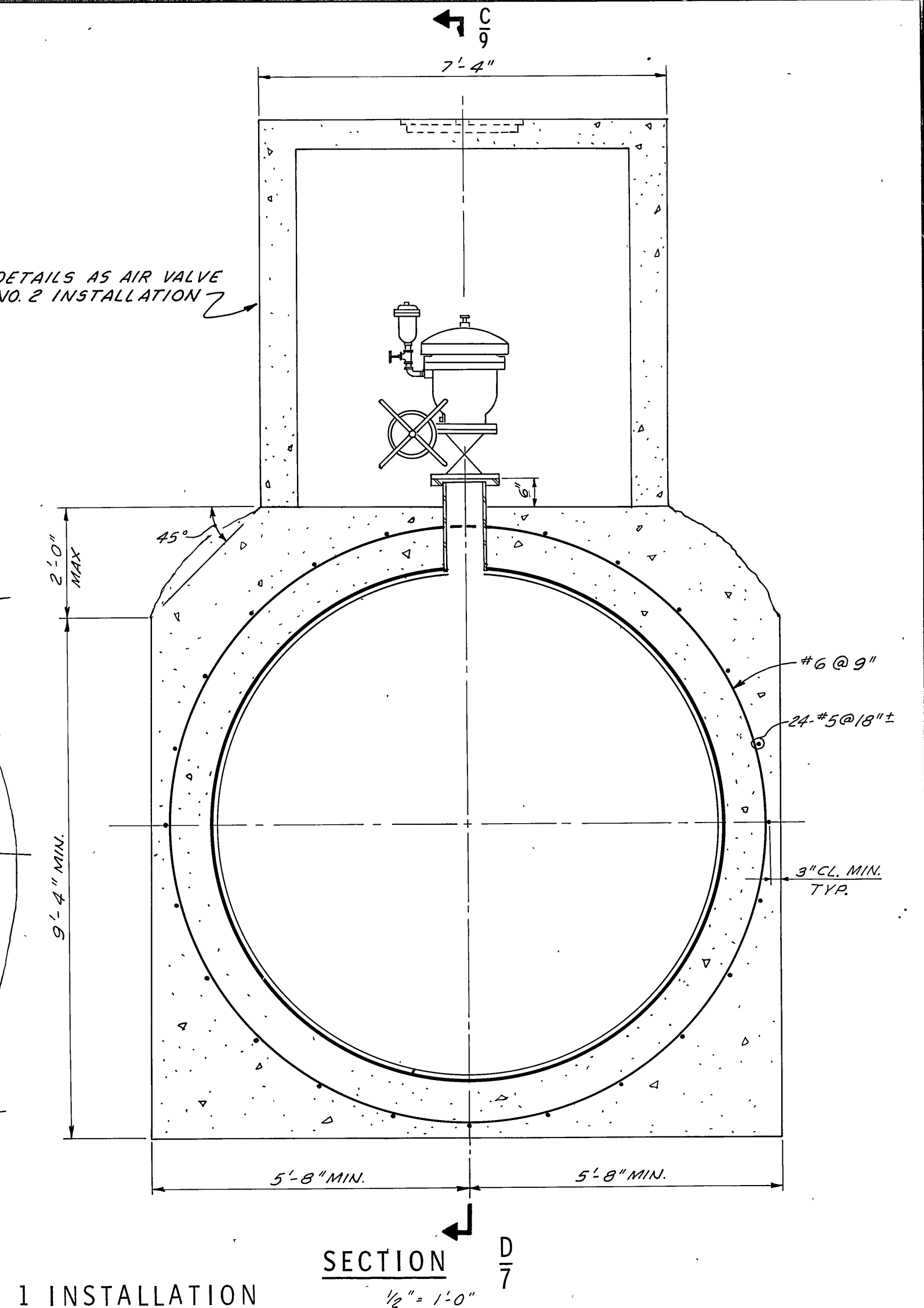
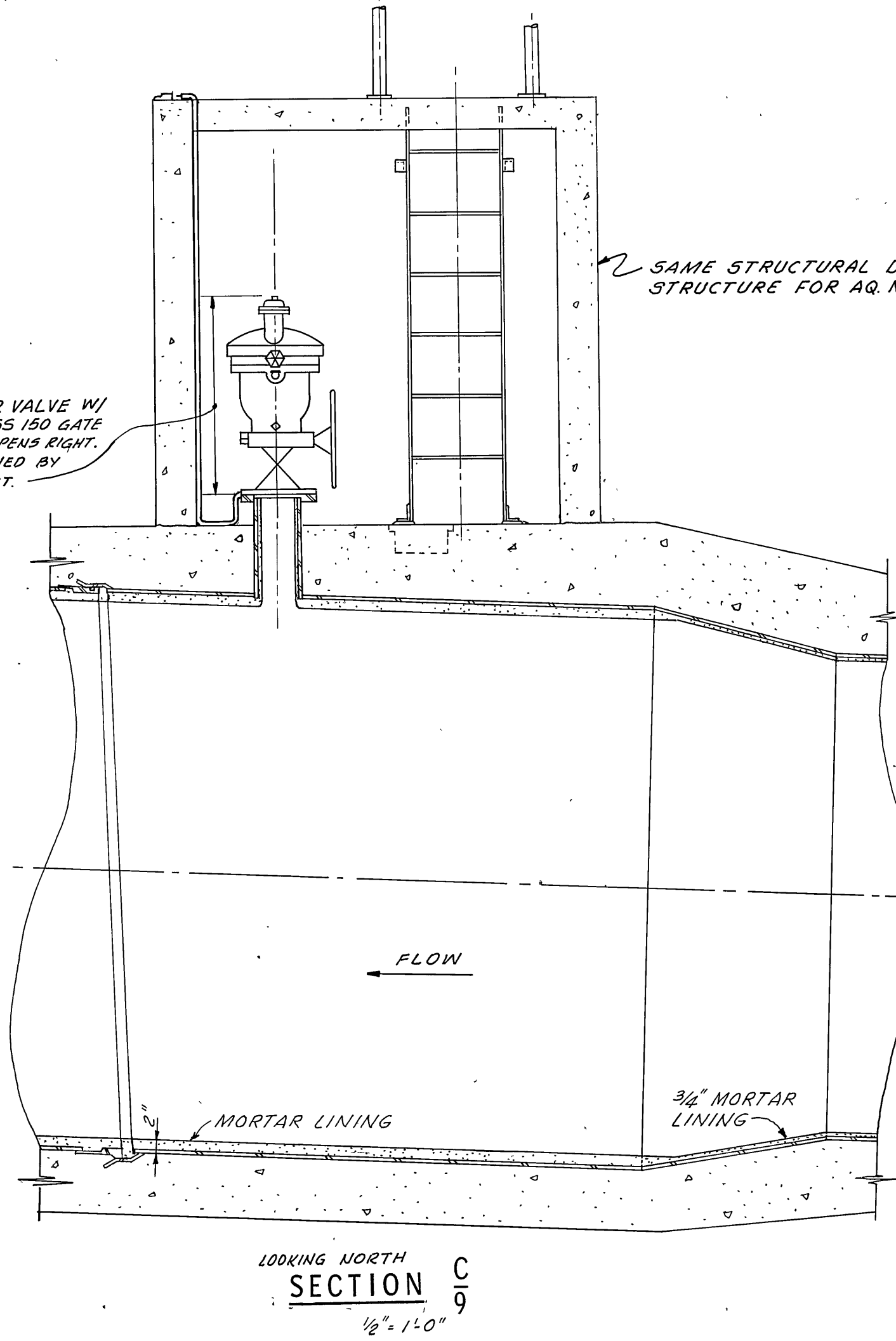
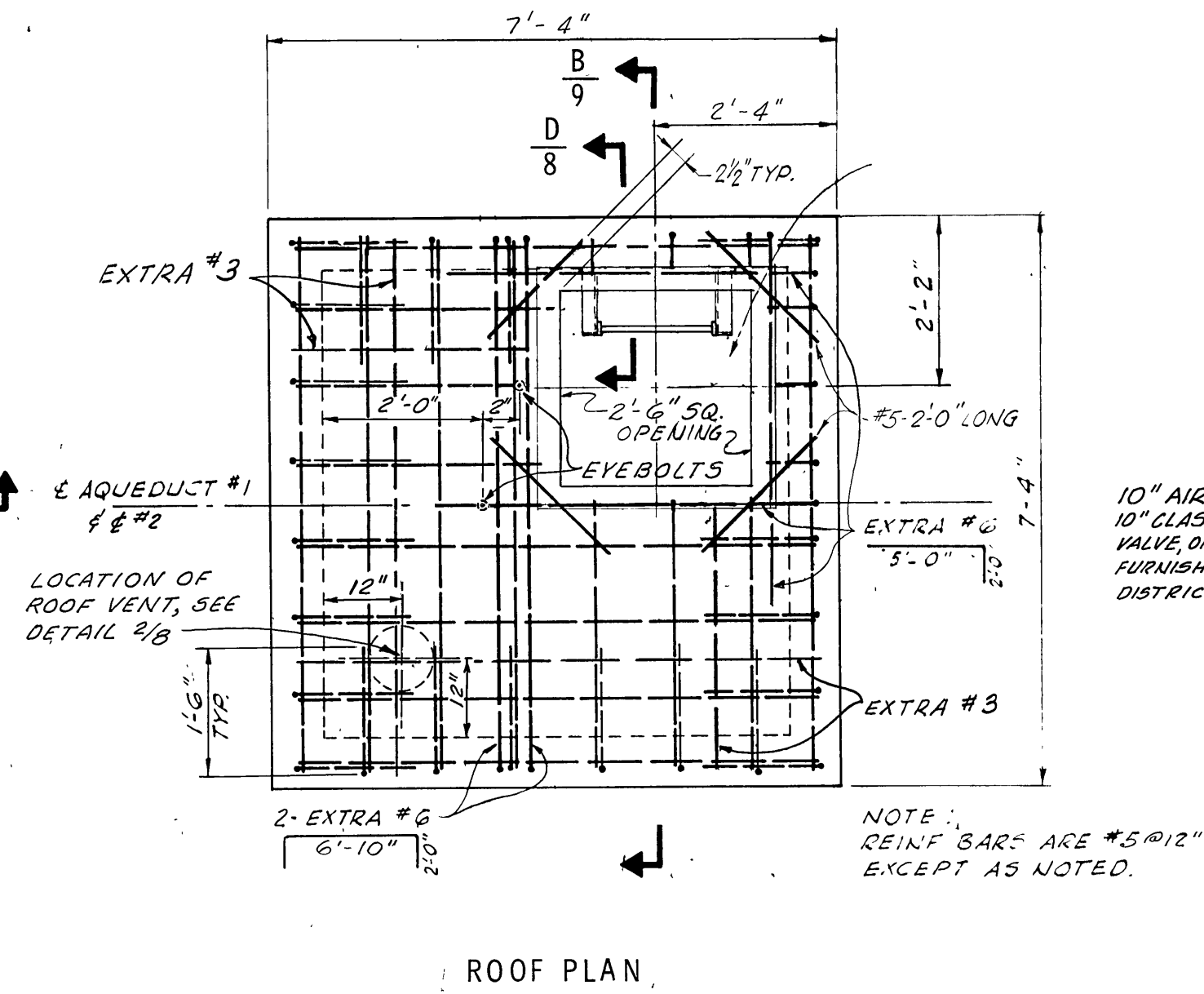
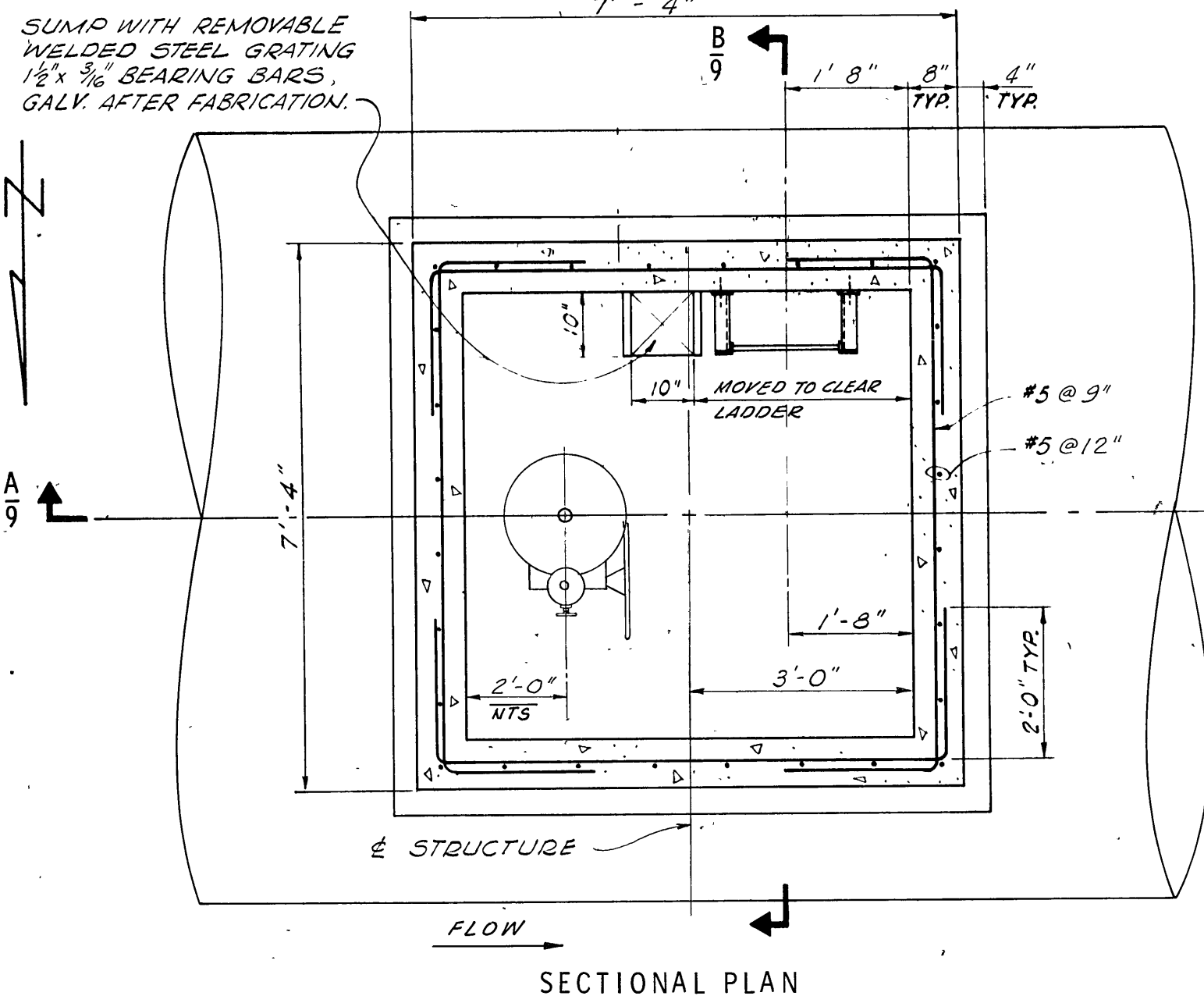
ACCESS LADDER
 $1\frac{1}{2}' \times 1'-0"$

SECTION B
6, 8

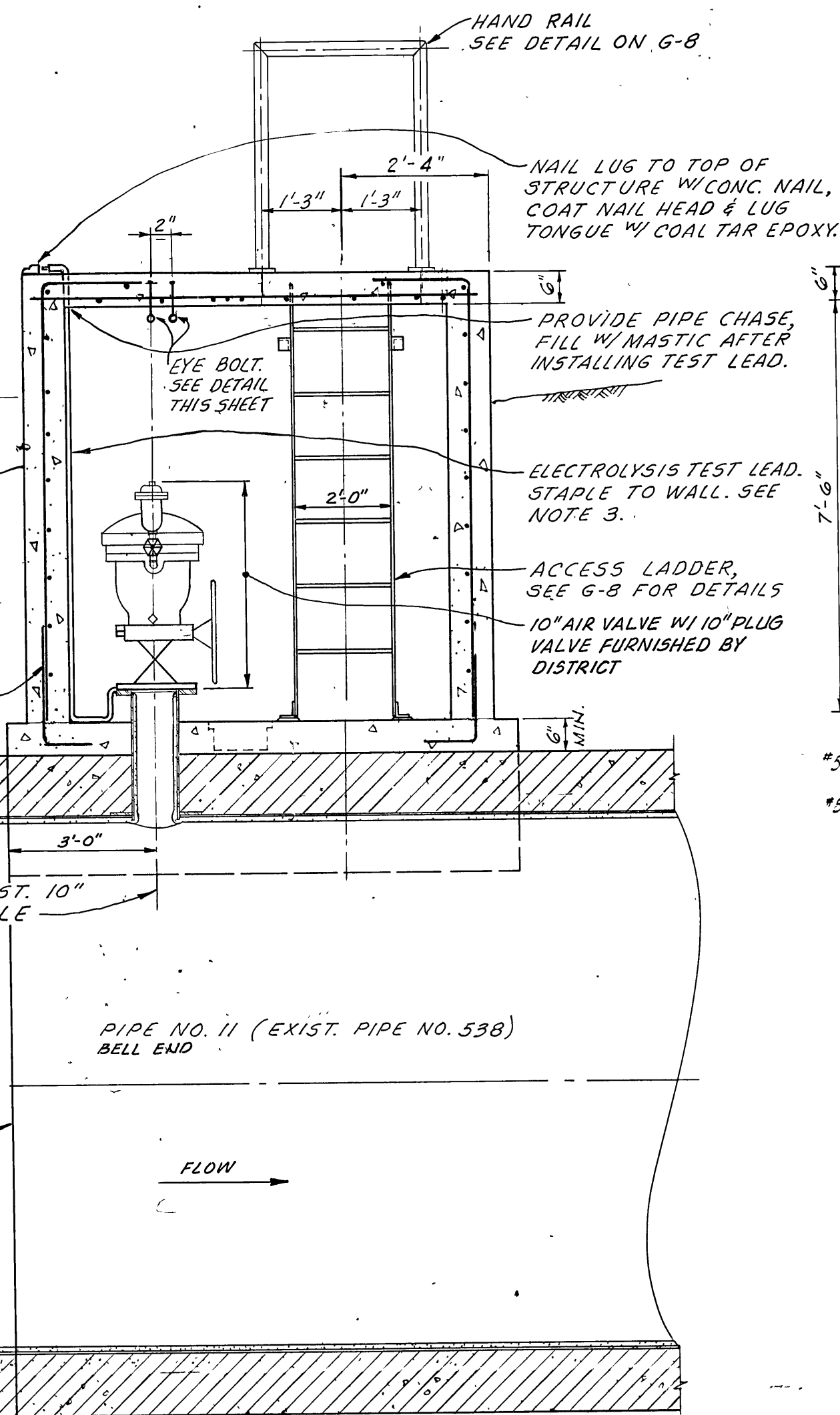
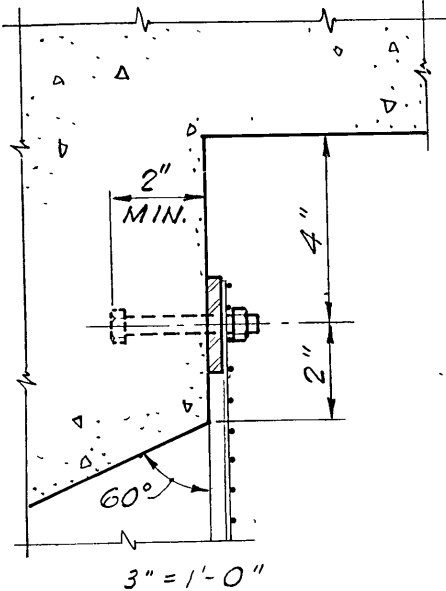
DESIGNED BY	REVIEWED BY	DATE	IN SERVICE	AS BUILT	INSPECTION
DRAWN BY	CHECKED BY	DATE	DATE	DATE	DATE
CORROSION CHECK BY	PROJECT ENGR	DATE	DATE	DATE	DATE
SUPERVISOR	SUPERVISOR	DATE	DATE	DATE	DATE
SUPERVISOR	SUPERVISOR	DATE	DATE	DATE	DATE
MANAGER	MANAGER	DATE	DATE	DATE	DATE
MANAGER	MANAGER	DATE	DATE	DATE	DATE

APPROVED	CHIEF ENGINEER R. C. E. NO. 14167
DESIGNED BY	REVIEWED BY
DRAWN BY	CHECKED BY
CORROSION CHECK BY	PROJECT ENGR
SUPERVISOR	SUPERVISOR
SUPERVISOR	SUPERVISOR
MANAGER	MANAGER
MANAGER	MANAGER
STRUCTURE OR ZONE DESIGNATION	SCALE
5449-G-8	1/2" = 1'-0" AS NOTED
DATE	15 MAR 68

SUMP WITH REMOVABLE
WELDED STEEL GRATING
1/2" x 3/8" BEARING BARS,
GALV. AFTER FABRICATION.

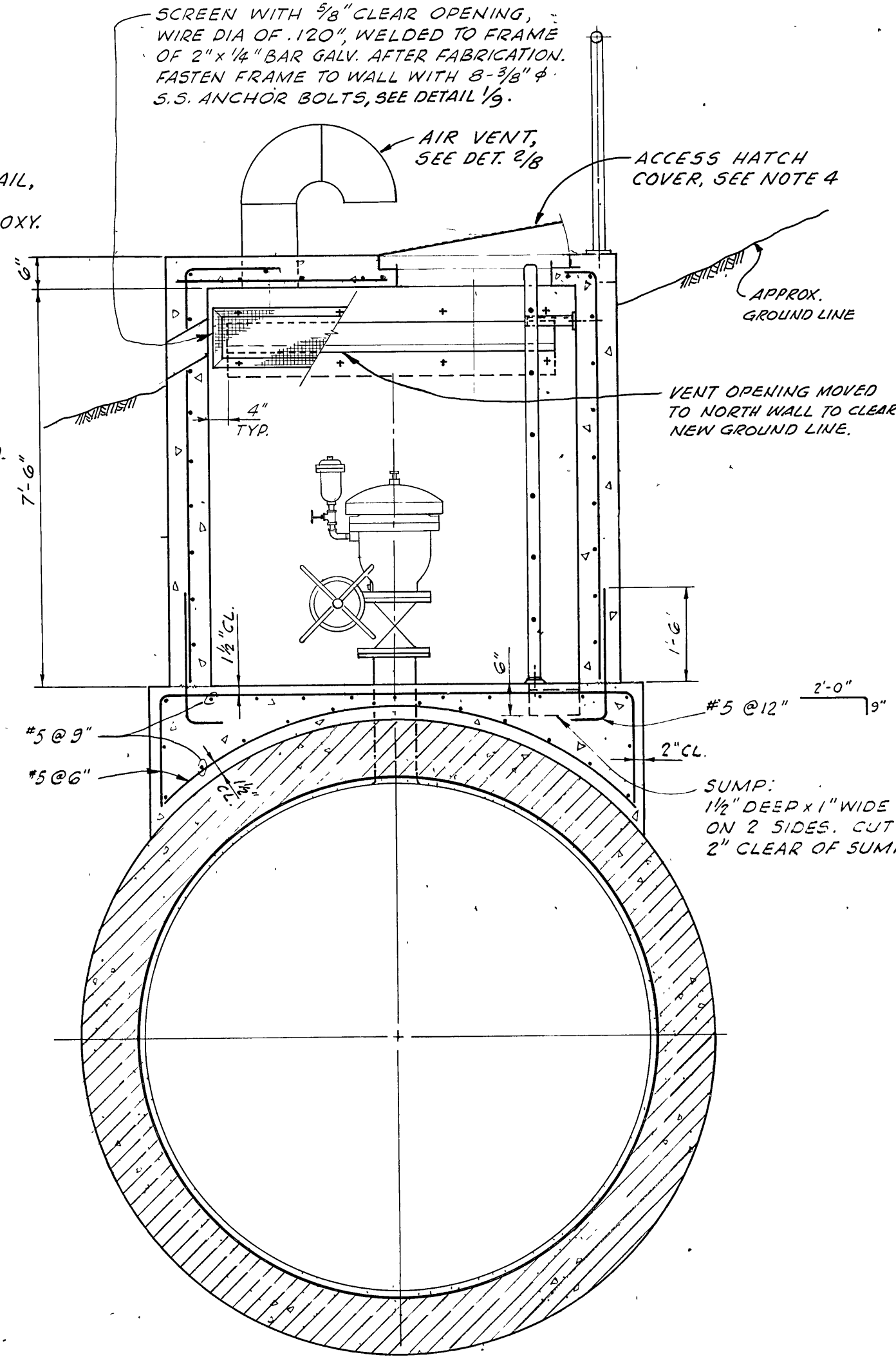


DETAIL 1/9



SECTION A-A
LOOKING SOUTH

LAFAYETTE AQUEDUCT NO. 2 INSTALLATION



SECTION B-B
LOOKING EAST

NOTES

- TWO AIR VALVE STRUCTURES ARE REQUIRED. FOR FABRICATION OF STEEL CYLINDER, SEE DETAILS ON DWG. G-7.
- ALL FERROUS METAL EXCEPT STAINLESS STEEL BOLTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- TEST LEADS SHALL BE #8 RR USE STRANDED 1/C WITH TERMINAL LUGS, T & B #54104, BOTH ENDS.
- ACCESS HATCH COVERS SHALL BE BILCO TYPE J-2 AL WITH A CONCEALED PADLOCK AS PER BILCO DWG. 61566,

DESIGNED BY	David J. Perkins
DRAWN BY	AS VITT & OTHERS
CHECKED BY	J. T. Tom
CORROSION CHECK BY	A. Westerback
PROJECT ENGR.	C. F. Gierke
SUPERVISOR	MECH & ELEC DESIGN
STRUCTURES DESIGN	W. B. Gierke
MANAGER	DESIGN ENGR. R. T. Tolbert
MANAGER	WATER PROD & DIST. W. T. Tolbert

APPROVED	CHIEF ENGINEER R.C.E. NO. 14167
EAST BAY MUNICIPAL UTILITY DISTRICT OAKLAND, CALIFORNIA	
LAFAYETTE AQUEDUCTS RELOCATION AT FIRST ST.	
AIR VALVE STRUCTURES	
STRUCTURE OR ZONE DESIGNATION	5449-G-9
SCALE	AS SHOWN
DATE	15 MAR 68

NO	DATE	REVISION	BY	APP
2	25 JUL 73	IN SERVICE	AS BUILT	INS
1	16 MAY 69	CHANGED LOCATION OF EYEBOLTS	CY	W
1	21 OCT 68	CHANGED LOCATION OF EYEBOLTS	CY	W