

ONE 20.0 MILLION GALLON WATER STORAGE TANK

CONTRACT NO. 91 PD 005 WITH
BALTIMORE COUNTY, MARYLAND

CONSULTING ENGINEERS:

KCI TECHNOLOGIES, INC.
1020 CROMWELL BRIDGE ROAD
BALTIMORE, MARYLAND 21204

CONTRACTOR:

PRELOAD, INC.
839 STEWART AVENUE, GARDEN CITY
NEW YORK 11530

HOWARD COUNTY CONTRACT NO. 44-3385
HOWARD COUNTY CAPITAL PROJECT NO.W-8051

PRELOAD WORKING DRAWINGS

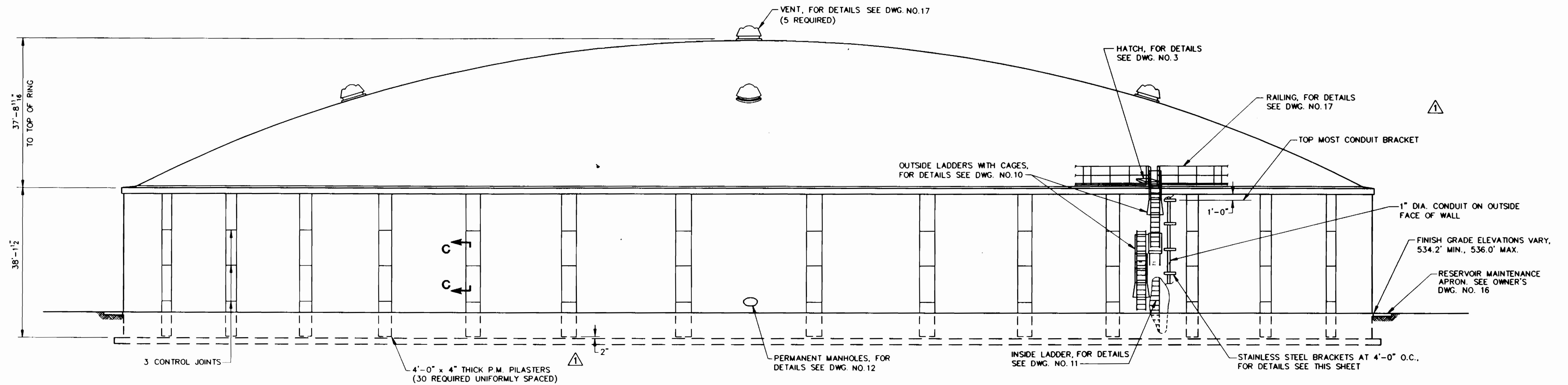
- MARYLAND 88903-1 TITLE SHEET
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- MARYLAND 88903-3 TYPICAL TANK SECTION
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- MARYLAND 88903-SK-1 WATERSTOP RELOCATION DETAILS

3385 w/1

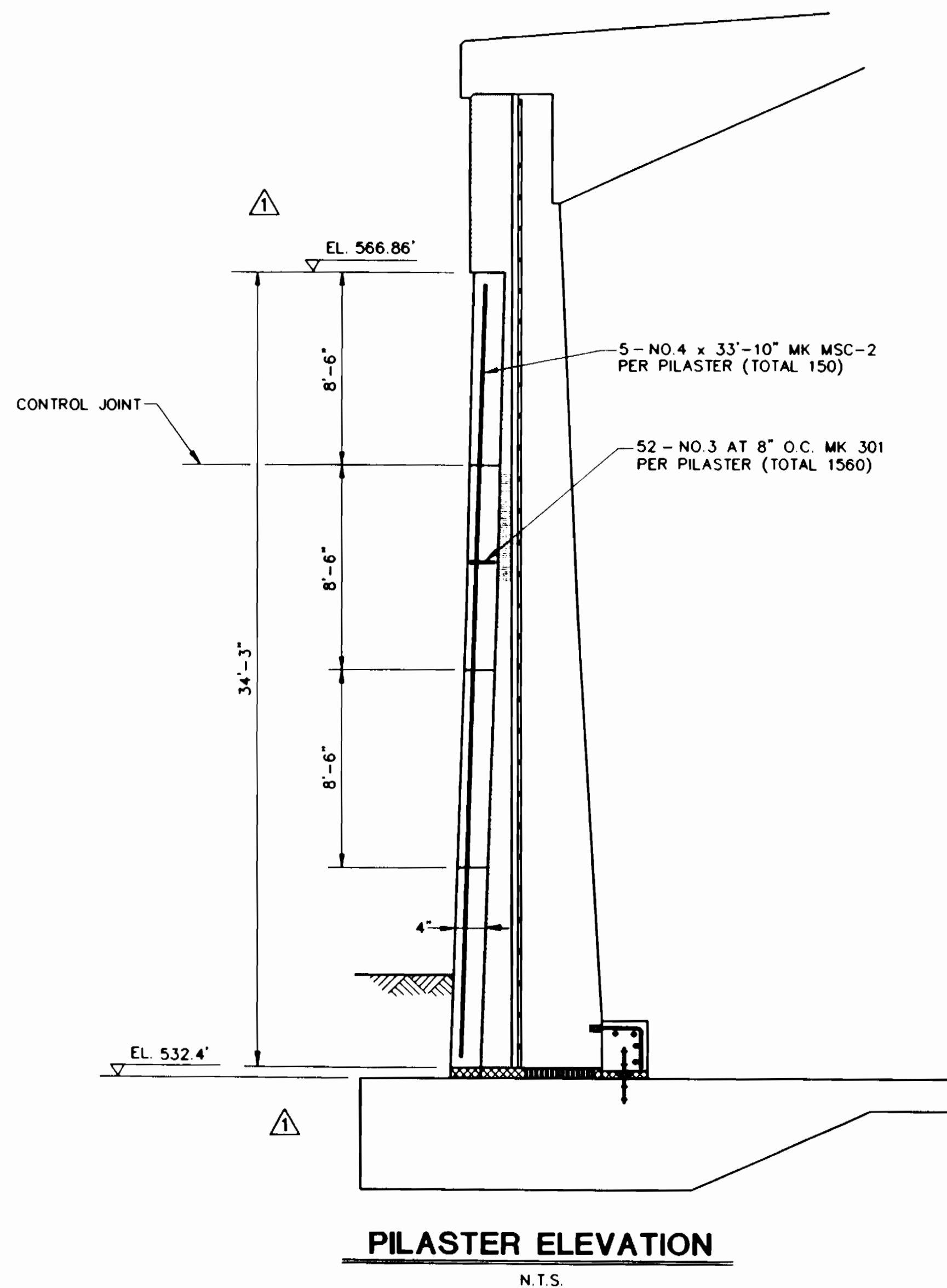
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REVISIONS				PRELOAD 839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530	WORKING DRAWING		
NO.	DATE	DESCRIPTION	BY		ONE 20.0 M.G. WATER STORAGE TANK CATONSVILLE, MARYLAND		
△	6/11/93	AS BUILT	PV	RAO	DWG. NO. 90-1983A		
					TITLE SHEET		
					DRAWN: JD	SCALE: NTS	CONTRACT NUMBER: 91 PD 005
					DESIGNED: RAO		DRAWING NUMBER: 88903-1
					CHECKED: TM	DATE: 5-20-91	

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TANK ELEVATION
(LOOKING EAST)
N.T.S.



PILASTER ELEVATION
N.T.S.

SECTION C-C
TYPICAL CONTROL
JOINT DETAIL

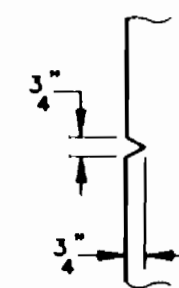
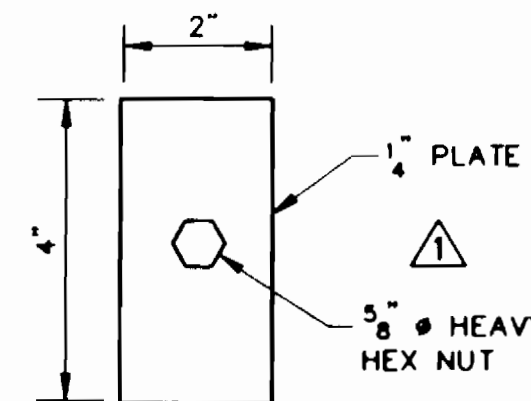
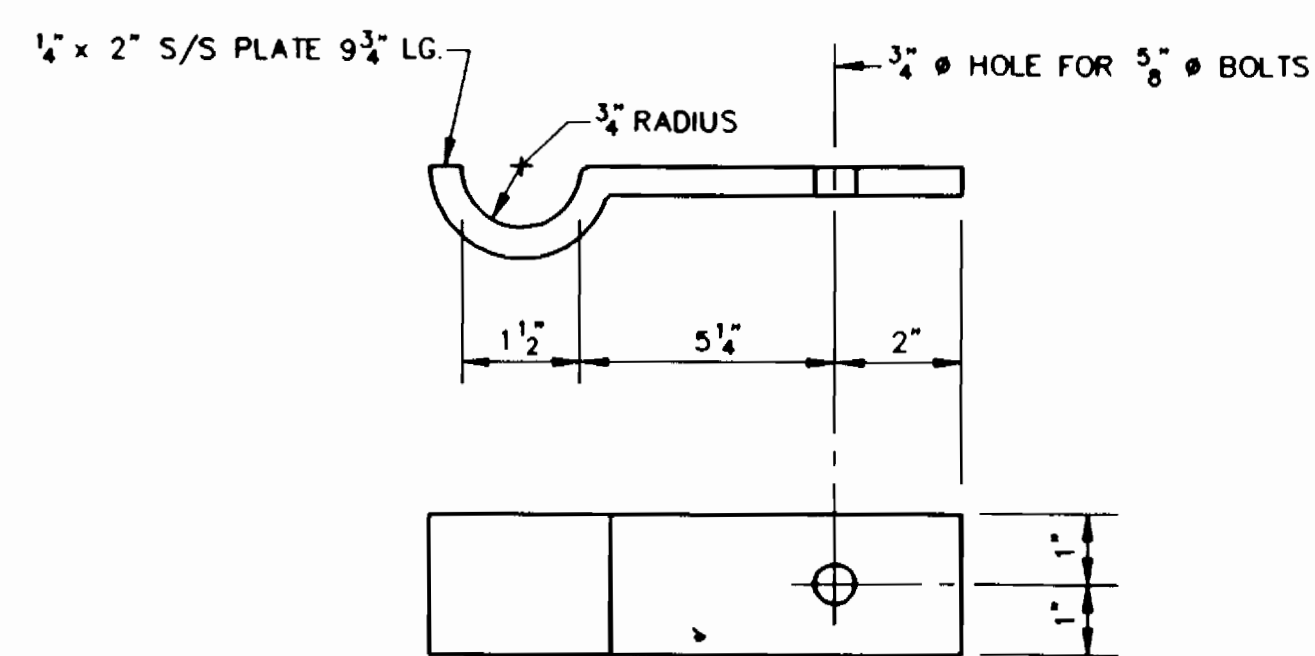
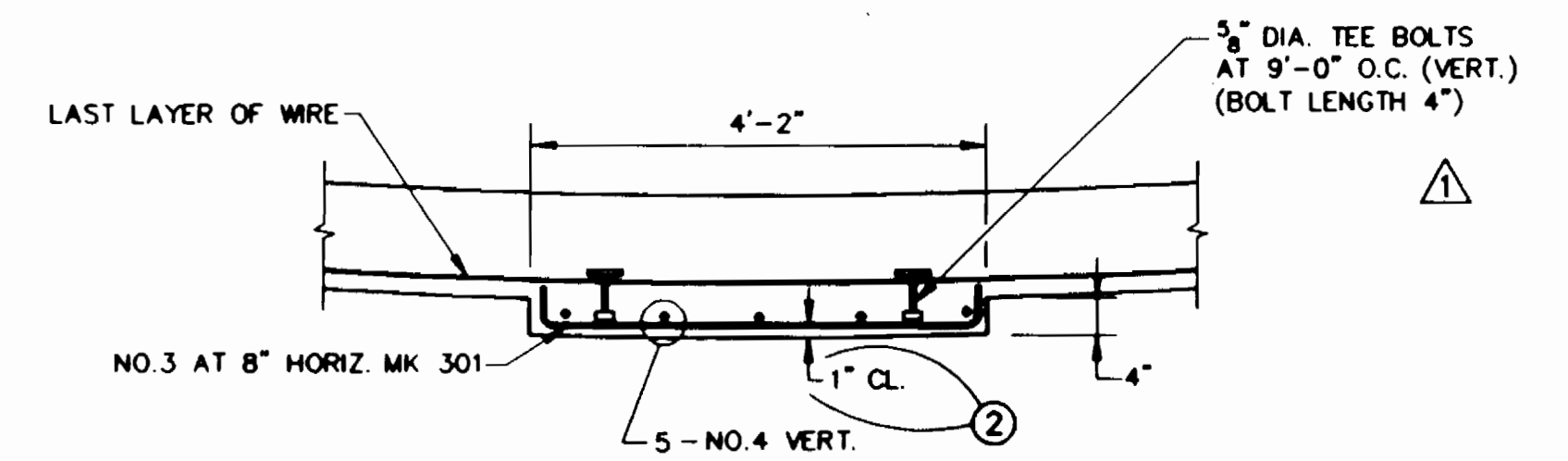


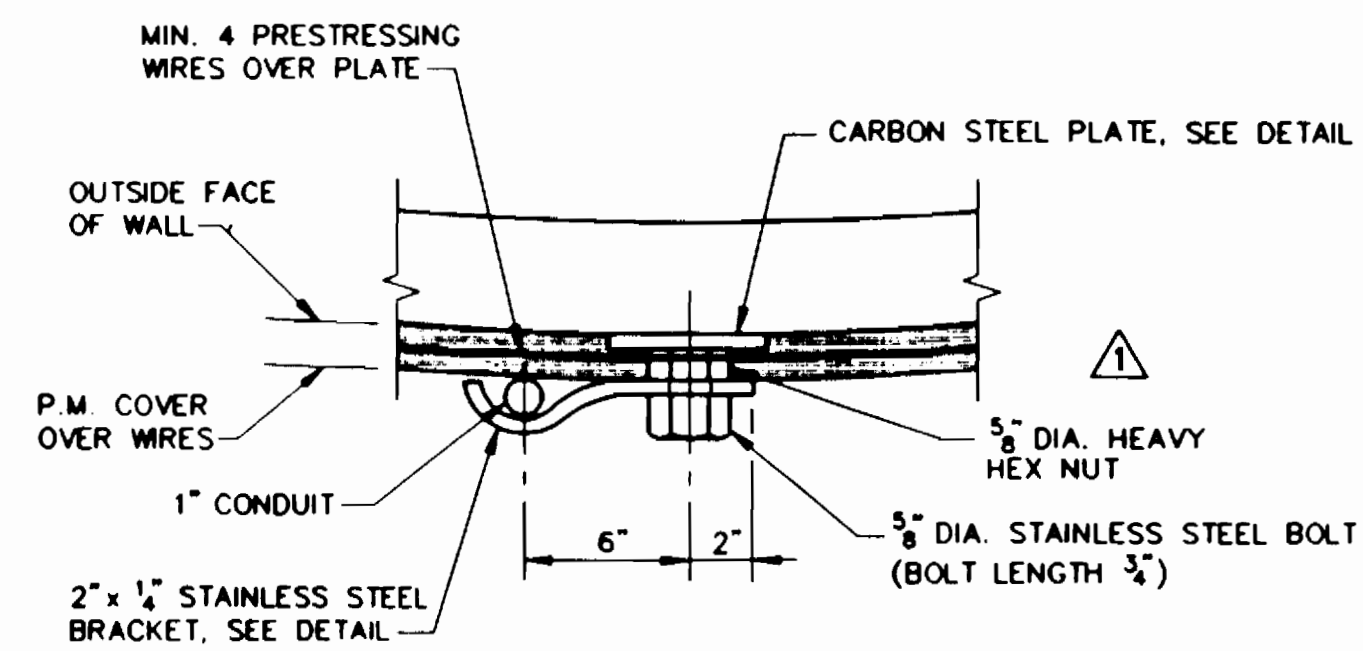
PLATE DETAIL
(240 REQ'D FOR PILASTERS)
(9 REQ'D FOR CONDUIT BRACKETS)



PILASTER DETAIL
(8 TEE BOLTS REQ'D PER PILASTER)



BRACKET DETAIL
(9 REQUIRED)



CONDUIT BRACE DETAIL

- NOTES:**
1. BRACES TO BE AT 4'-0" O.C. SPACING (MAX).
2. FOR ATTACHMENT TO DOME USE EXPANSION BOLTS TO SECURE THE STAINLESS STEEL BRACKETS.

GENERAL NOTES: (SEE DWG. NO.3 FOR TANK SECTION)

- P.M. = PNEUMATIC MORTAR (28 DAY COMPRESSIVE STRENGTH = 5000 PSI) (WALL JOINTS AND P.M. BETWEEN DIAPHRAGM AND WIRES) (28 DAY COMPRESSIVE STRENGTH = 4500 PSI) (COVER COAT AND P.M. BETWEEN WIRES)
- MINIMUM 28 DAY CONCRETE CYLINDER STRENGTHS:
FOOTING AND FLOOR ----- 3500 PSI
DOME ----- 4500 PSI
WALL ----- 4300 PSI (BASED ON CYLINDER TESTS OF LOWEST STRENGTH PANEL)
- PIPE ENCASEMENT ----- 3000 PSI
- DOME LIVE LOAD = 25 P.S.F.
- REBAR TO BE NEW BILLET STEEL ASTM A615, GRADE 60. SEE REBAR SCHEDULE FOR LAP REQUIREMENT EXCEPT AS NOTED ON DWGS. NO. 3 AND 17. DOME REBAR AND SUPPORTS TO BE EPOXY COATED.
- ALL FLOOR REBAR SUPPORTS TO BE FURNISHED AS SHOWN WITH SAND PLATES. (DWG. NO.3).
- ALL SPONGE RUBBER SHALL CONFORM TO ASTM D1056-85, TYPE 2A-1.
- WALL BEARING PADS TO BE 50 DURO, WITH AN ULTIMATE TENSILE STRENGTH OF 1500 PSI AND A MINIMUM ELONGATION OF 500 PERCENT.
- GRANULAR LEVELLING BASE - PROVIDE A WELL GRADED CRUSHED ROCK GRADED FROM 3/4" U.S. SIEVE SIZE DOWNWARD WITH 100% PASSING 1" U.S. SIEVE AND NOT MORE THAN 8% PASSING NO.200 U.S. SIEVE SIZE. GRADATION TO BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO ITS USE. PLACE, SPREAD AND COMPACT MATERIAL IN HORIZONTAL LAYERS NOT TO EXCEED 6" EACH. COMPACT EACH LAYER WITH SMALL VIBRATORY ROLLER SUCH AS A "RAMMAX P24 OR P33" OR A "DYNAPAC CA15" OR AN APPROVED EQUAL. MAKE NOT LESS THAN 2 ROLLING PASSES IN EACH DIRECTION FOR EACH LAYER. USING WATER FOR LUBRICATION AS NECESSARY. PROVIDE INSPECTION TO CERTIFY COMPACTION EFFORT.
FINE GRADE "LEVELLING BASE" TO TOLERANCE OF PLUS 0" TO -1/2". RECOMPACT SURFACE AFTER FINE GRADING IF NECESSARY.

HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051

WORKING DRAWING

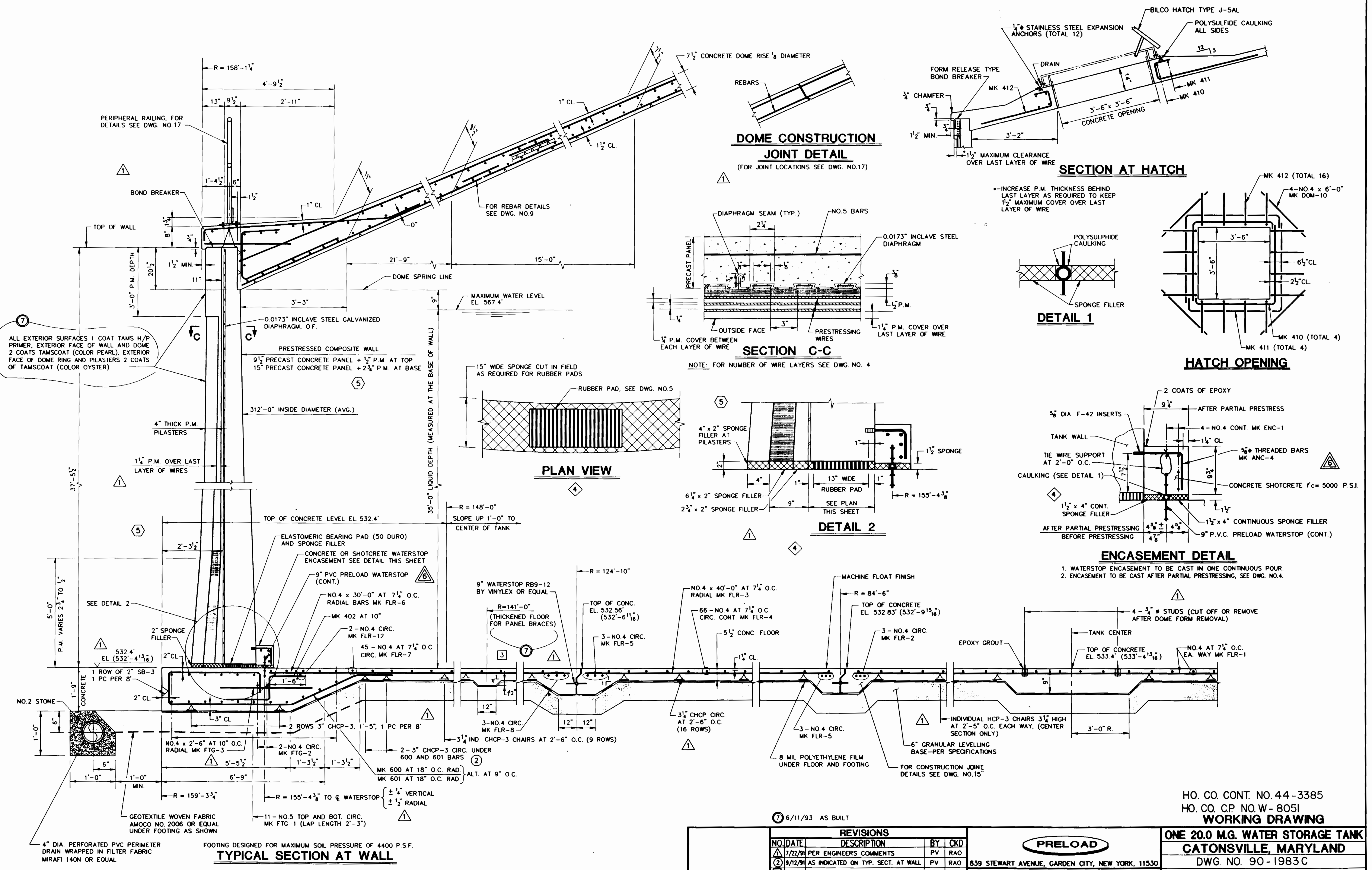
REVISIONS				PRELOAD 839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530	ONE 20.0 M.G. WATER STORAGE TANK CATONSVILLE, MARYLAND	
NO.	DATE	DESCRIPTION	BY		CKD	DWG. NO. 90-1983B
1	7/22/91	PER ENGINEERS COMMENTS	PV	RAO		
2	8/11/93	AS BUILT	PV	RAO		

DESIGNED: RAO	SCALE: N.T.S.	CONTRACT NUMBER: 91 PD 005
CHECKED: TM	DATE: MAY 20, 1991	DRAWING NUMBER: 85903-2

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" (REV'D 1/90)

3385 w/2

3385 W/S



NO.	DATE	DESCRIPTION	BY	CHKD
1	7/22/91	PER ENGINEERS COMMENTS	PV	RAO
2	9/12/91	AS INDICATED ON TYP. SECT. AT WALL	PV	RAO
3	10/2/91	THICKENED FLR. FOR PANEL BRACES	JD	RAO
4	10/21/91	RUBBER PAD AND SPONGE FILLER DETAILS	JD	RAO
5	11/6/92	P.M. VARIANCE AS SHOWN ABOVE	PV	RAO
6	6/19/92	CURB TO BE SHOTCRETE OR CONC. PER OWNERS DWG.	PV	RAO

PRELOAD
 839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

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HO. CO. CONT. NO. 44-3385
 HO. CO. C.P. NO. W-8051
WORKING DRAWING

ONE 20.0 M.G. WATER STORAGE TANK
CATONSVILLE, MARYLAND
 DWG. NO. 90-1983C

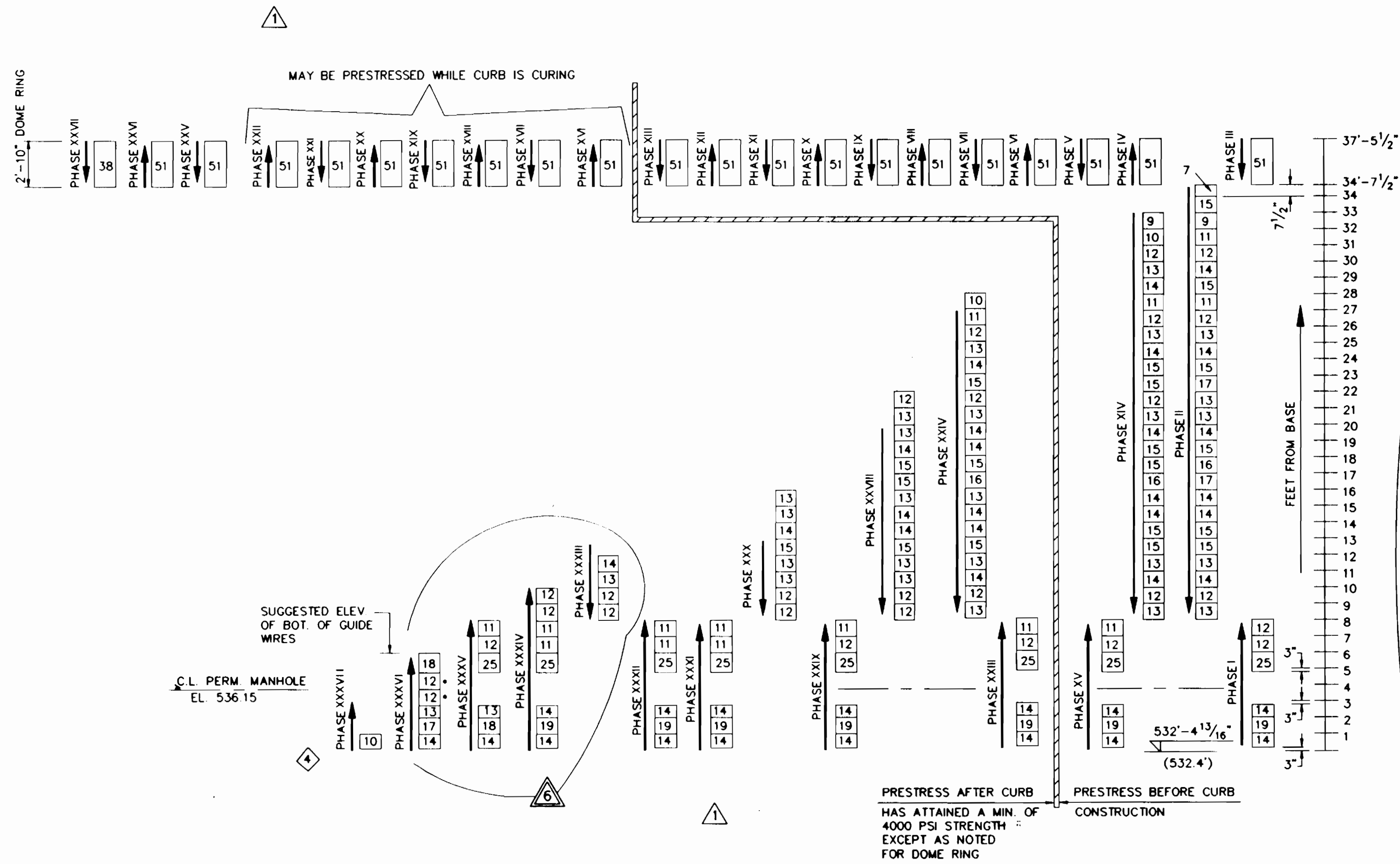
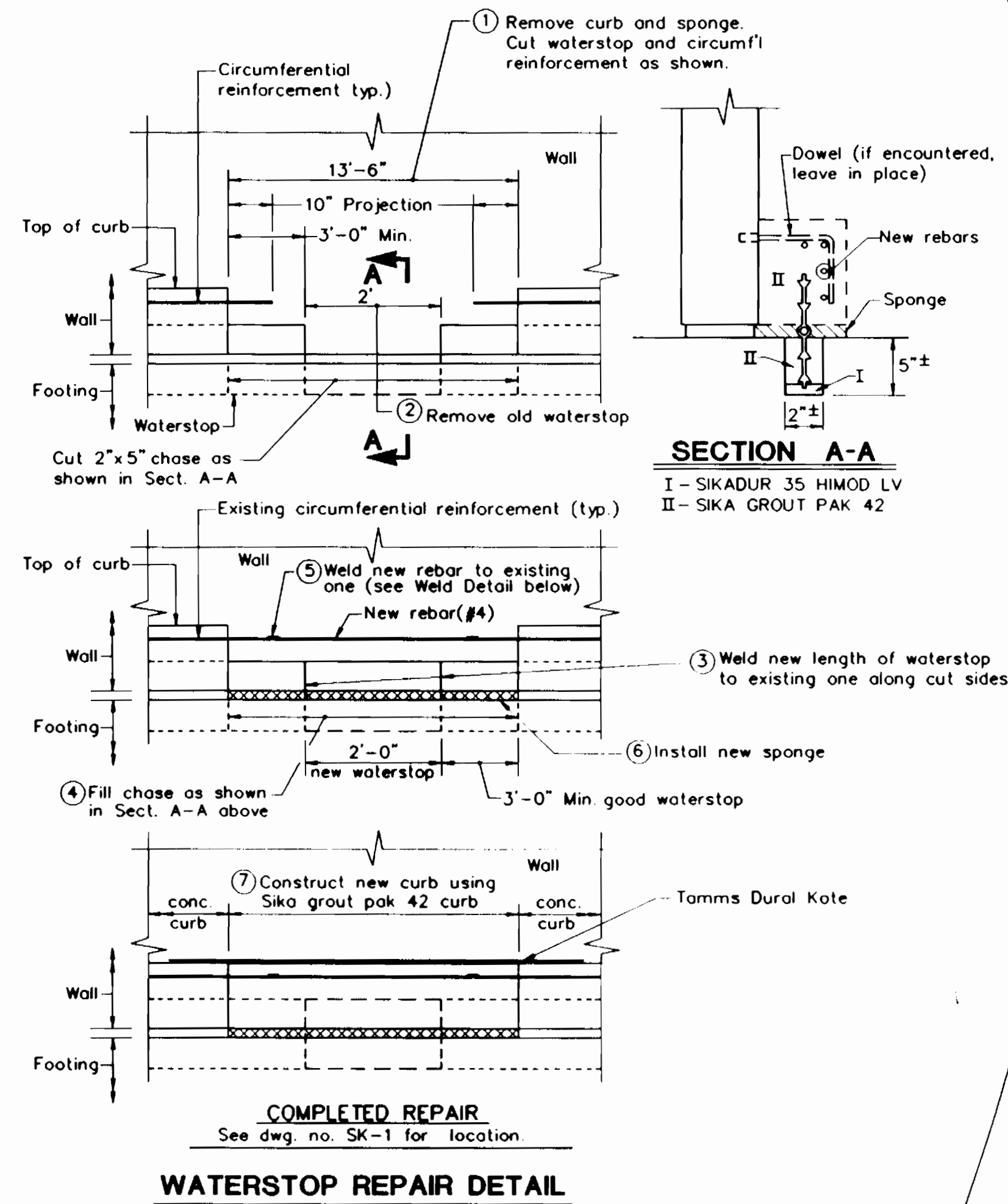
TYPICAL TANK SECTION

DRAWN: PV SCALE: N.T.S. CONTRACT NUMBER: 91 PD 005
 DESIGNED: RAO
 CHECKED: TM DATE: MAY 20, 1991 DRAWING NUMBER: 88903-3

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" - REV'D 1-90

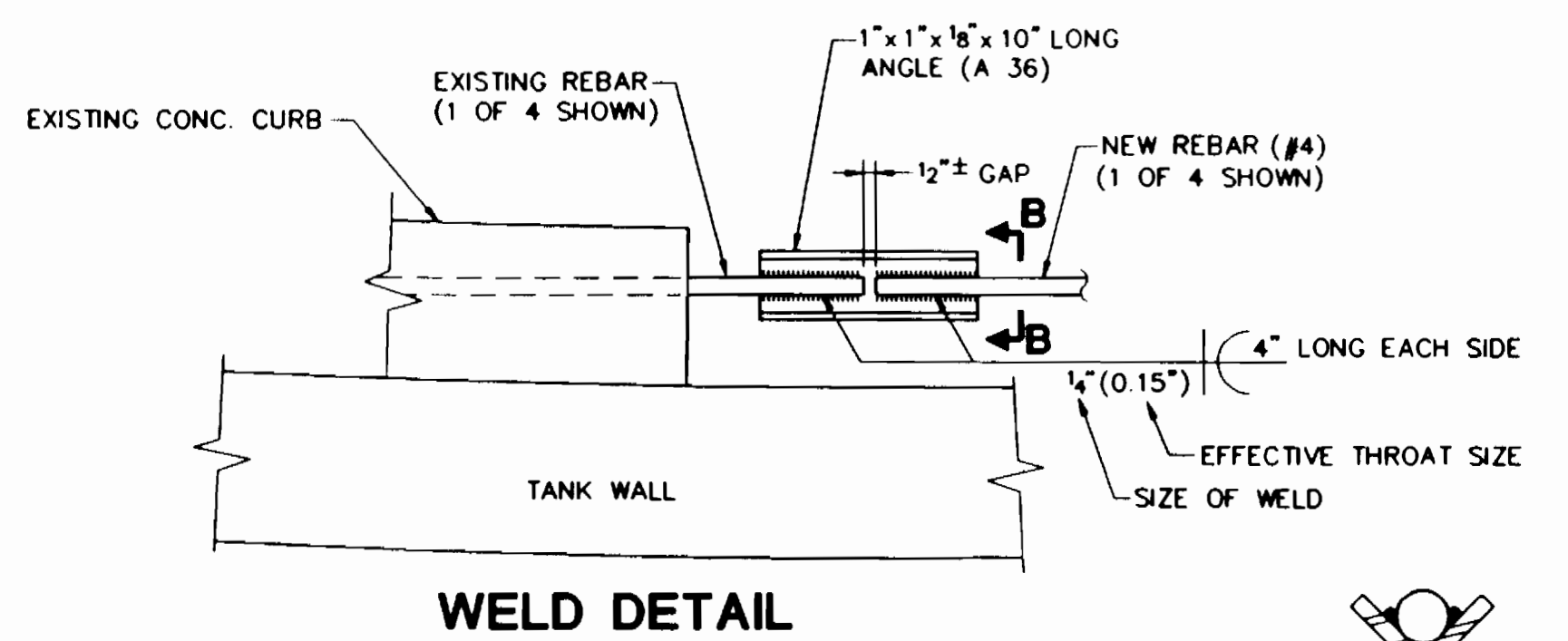
MISCELLANEOUS IRON SCHEDULE

MK	QUANTITY		SIZE	LENGTH	WEIGHT (LBS.)	SKETCH	LOCATION
	DESIGN	ORDER					
ANC-2		34	1"x1"x1/4" L (1.5 PLF)	20'-0"	1020	FORMULA: $\frac{\text{TOTAL NO. WAL-2}}{2} \times \frac{0.67}{20}$ (TO NEXT HIGHER 20')	PANEL JOINTS
ANC-4	360	364	5/8" φ	1'-4"	511		WATERSTOP ENCASEMENT
ANC-5	4	4	1" φ	1'-9"	19		VENT AT APEX



	4026408	3973110	4146245
30520	27310	34720	
66540	56310	73780	
81090	68910	86800	
92360	81520	99820	
106200	94130	112840	
118440	106730	125860	
128250	119340	134540	
138665	131950	147560	
152792	144560	160580	
163358	157170	173600	
175316	169780	186840	
184620	182390	200510	
199680	194990	214180	
208740	207600	223290	
227240	220210	236960	
240760	232820	250640	
257800	245430	264310	
268590	258040	277980	
279370	270640	291650	
295790	283250	305320	
301920	295860	314430	
318195	308470	328100	
325650	321080	341780	
338600	333690	355450	
349970	346300	369120	
368880	358900	382790	
376926	371510	396460	
387605	384120	405570	
399128	396730	419240	
951205	941950	993420	
49620	48450	54680	
53160	48450	54680	
539112	529590	560510	
724906	714730	756460	
594300	587630	619500	

IN PLACE TOTAL WIRE FORCE (lbs.) MIN. INITIAL FORCE REQUIRED (lbs.) MAX. INITIAL FORCE ALLOWED (lbs.)



- NOTES:
- ALL WELDING TO BE DONE IN ACCORDANCE WITH STRUCTURAL WELDING CODE FOR REINFORCING STEEL (AWS D 1.4-92)
 - ELECTRODES SHALL CONFORM TO E 70XX (SUBMERGED ARC)
 - USE A MINIMUM PREHEAT TEMPERATURE OF 100° F. SHIELD WATERSTOP AGAINST HEAT AS REQUIRED.
 - AFTER WELDING IS COMPLETED BARS SHALL BE ALLOWED TO COOL NATURALLY.

SECT. B-B

LEGEND

* WIRES ANCHORED TO STRESS R.

WIREWINDING SCHEDULE

NOTES:

- WIREWINDING SCHEDULE IS BASED ON A WIRE DIAMETER OF 0.192" FOR WALL & DOME RING. SIZES AND NUMBERS MAY BE ALTERED AS NECESSARY TO ATTAIN PROPER TOTAL INITIAL FORCE.
- INITIAL FORCE IN WIRE (BASED ON SIZE INDICATED): WALL = 4340 lbs. DOME RING = 3760 lbs.
- INITIAL STRESS IN THE PRESTRESSING WIRES SHALL NOT EXCEED 73.2% OF THE LOWEST VALUE OF THE ULTIMATE STRENGTH, f_{pu} , CERTIFIED FOR THE ACTUAL WIRE HEAT USED.
- PROVIDE 1/4" PNEUMATIC PROTECTIVE COVER OVER OUTERMOST LAYER OF WIRES.
- WIREWINDING SEQUENCE SHOWN SHOULD NOT BE ALTERED WITHOUT PRIOR APPROVAL BY PRELOAD ENGINEERS.
- PHASE XIV CAN BE WRAPPED CONCURRENTLY WITH PHASES III THRU XIII.
- PHASE XXVIII CAN BE WRAPPED CONCURRENTLY WITH PHASES XXV THRU XXVII.
- WHEN CURB HAS ATTAINED 4,000 PSI STRENGTH DOME RING AND WALL PHASE MAY BE WRAPPED CONCURRENTLY UNTIL COMPLETION OF EITHER OR BOTH.

7/26/93 CURB REPAIR DETAIL & IN PLACE WIRE FORCE SHOWN - AS BUILT

REVISIONS			
NO.	DATE	DESCRIPTION	BY CKD
1	6/25/91	AS INDICATED ABOVE	PV RAO
2	7/29/91	GENERAL REVISION	JD RAO
3	11/21/91	WIRE SIZE CORRECTION	JD RAO
4	3/19/92	PER ENG'S COMMENTS	JD RAO
5	5/27/92	ADDED NOTE 8	EZ RAO



839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

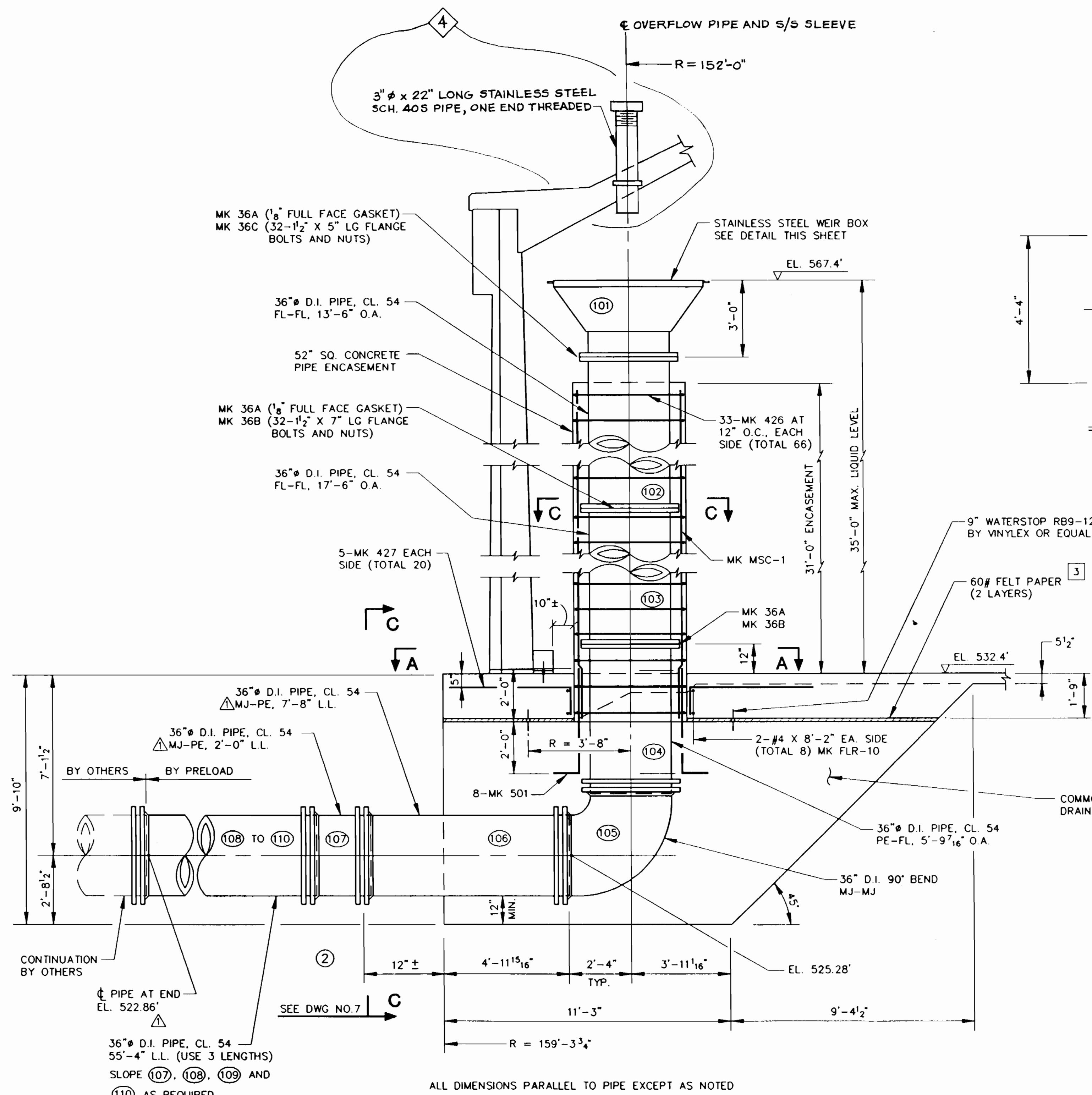
H.O. CO. CONT. NO. 44-3385
H.O. CO. C.P. NO. W-8051
WORKING DRAWING

20.0 M.G. WATER STORAGE TANK CATONVILLE MD		
DWG NO 90-1983D		
WIREWINDING SCHEDULE		
DRAWN: DDD	SCALE: NONE	CONTRACT NUMBER: 91 PD 005
DESIGNED: RAO	DATE: 5/20/91	DRAWING NUMBER: 88903-4
CHECKED: T.M.		

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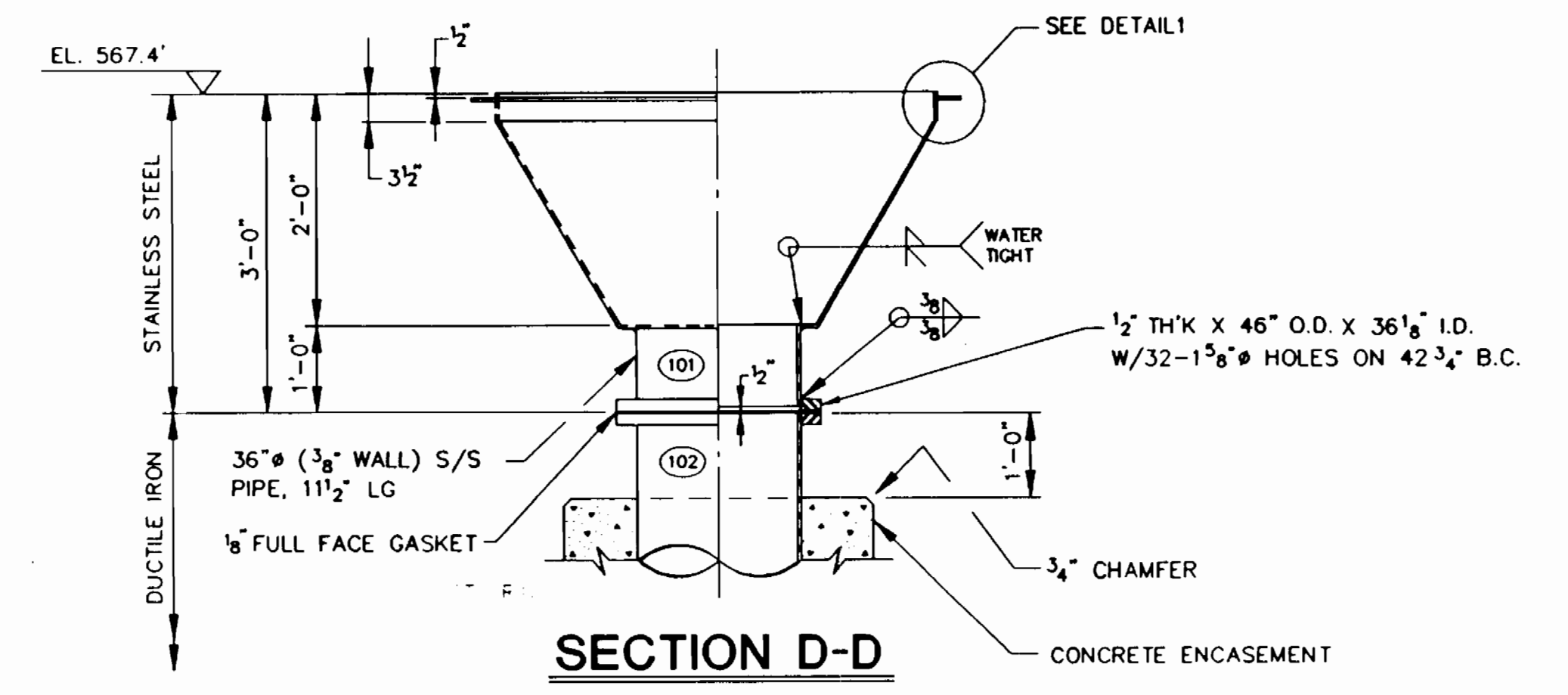
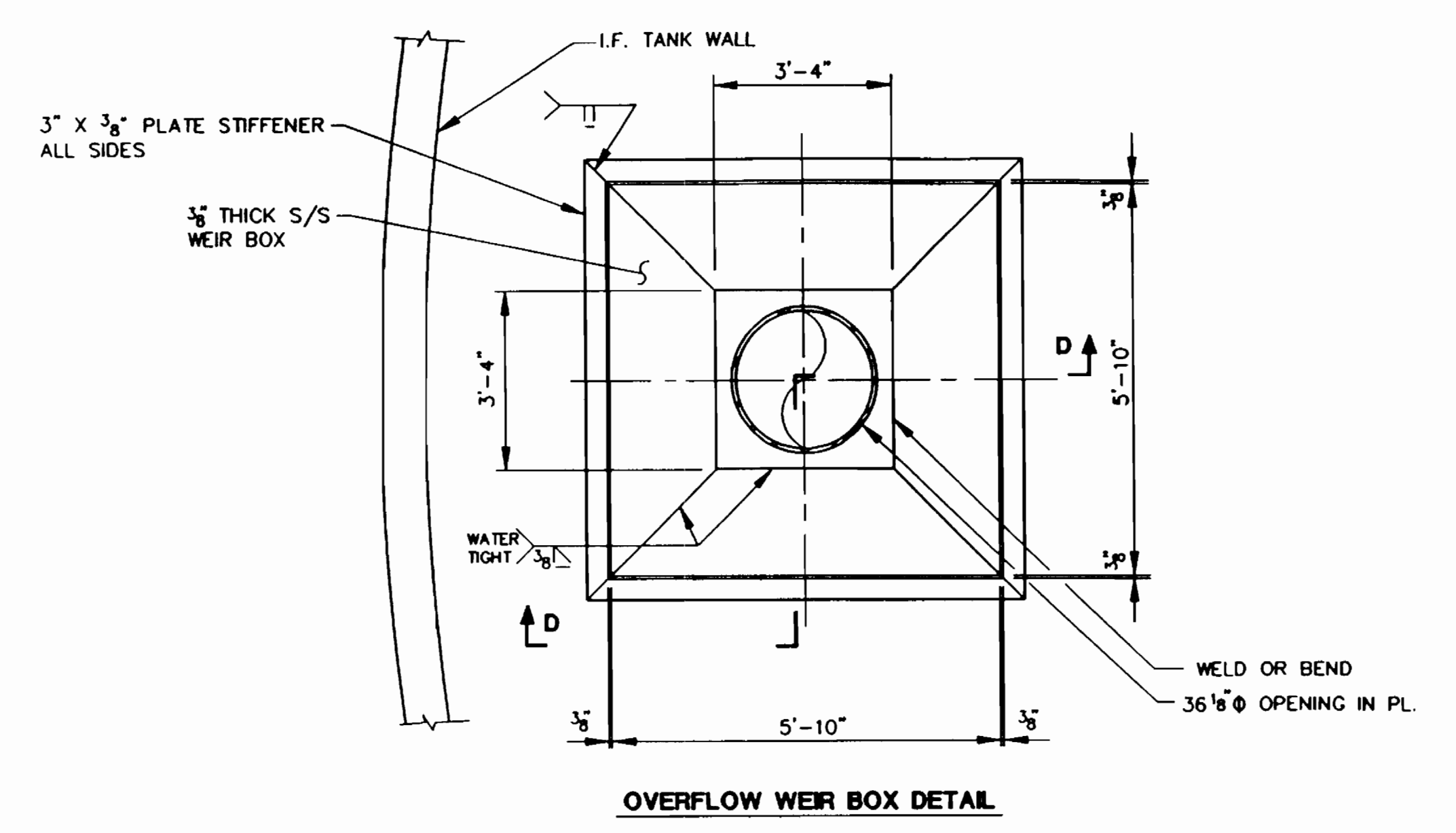
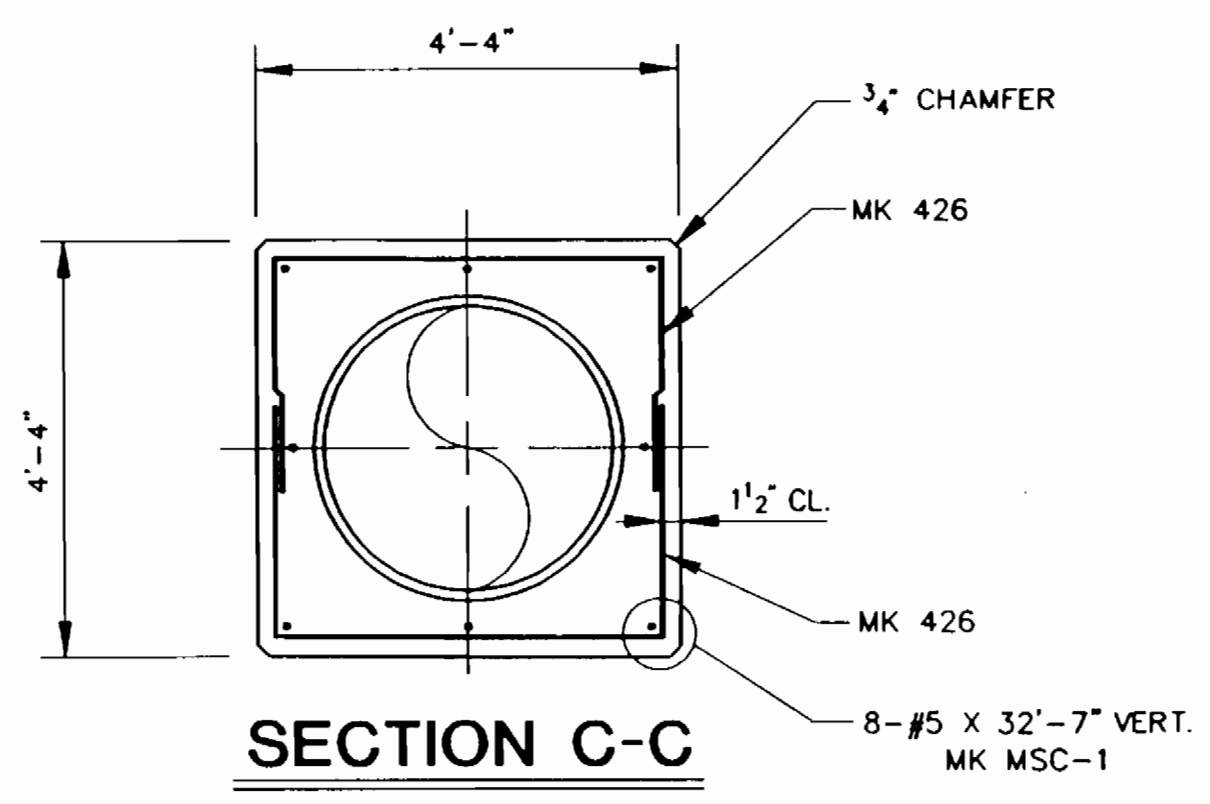
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3385 w/4

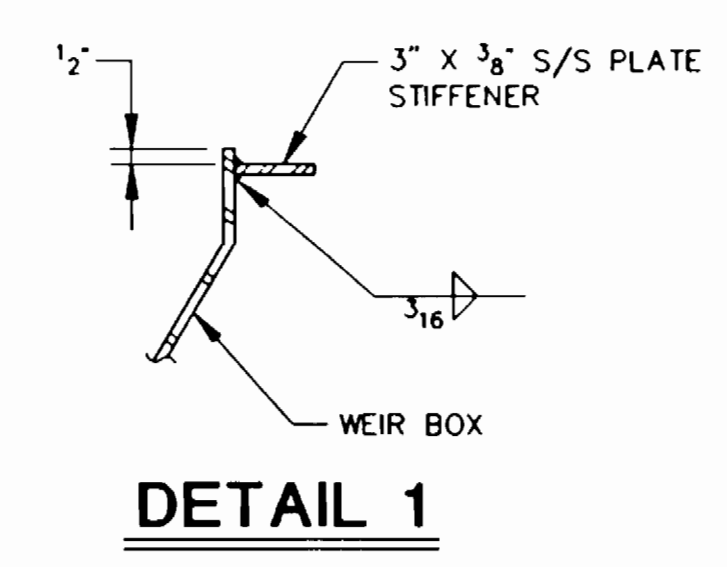


36" DIA. OVERFLOW PIPE DETAIL

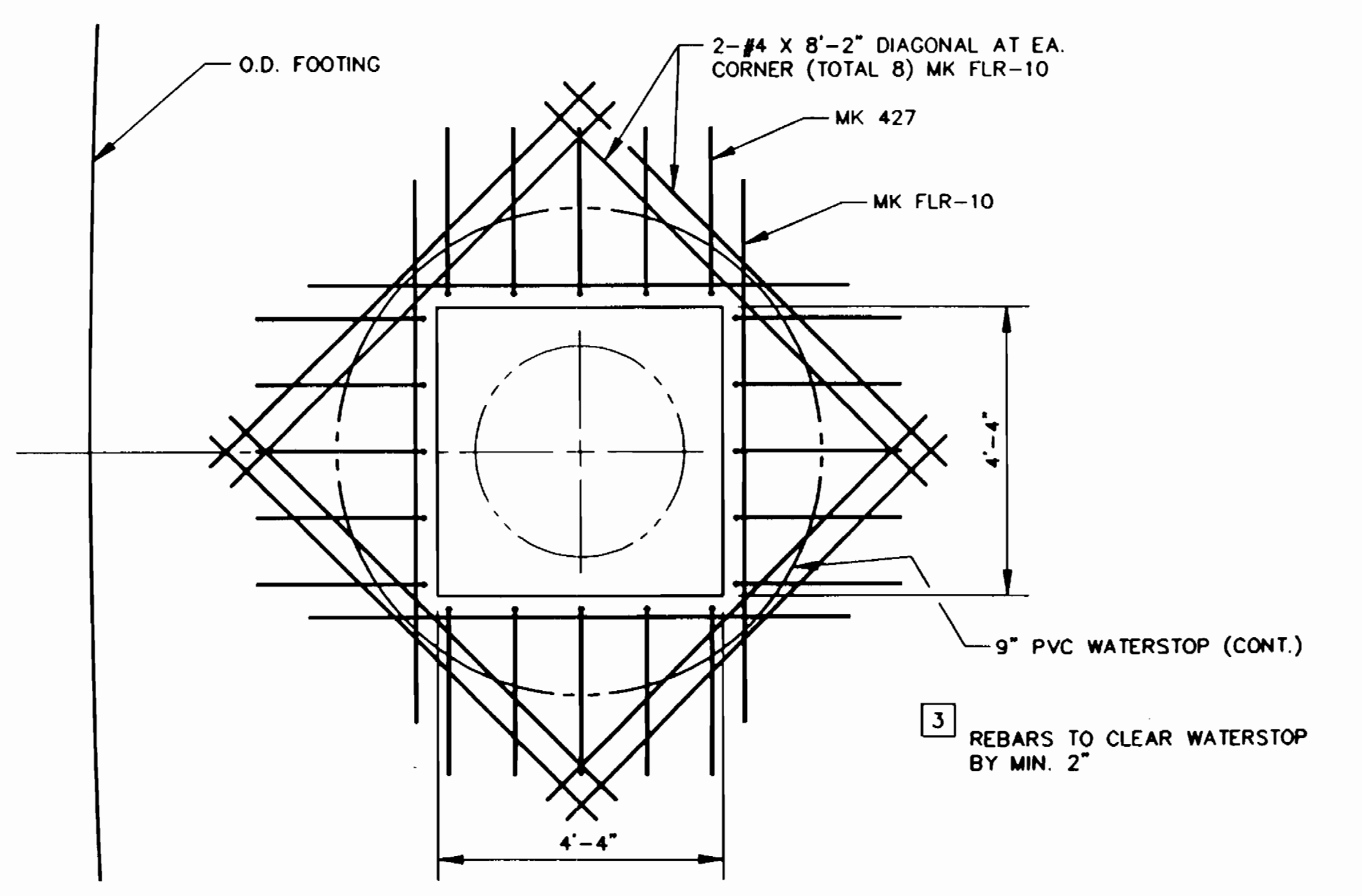
NOTE: ALL MJ JOINTS NOT ENCASED IN CONCRETE TO HAVE RETAINER GLANDS



SECTION D-D



DETAIL 1



SECTION A-A

HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051
WORKING DRAWING

REVISIONS			
NO.	DATE	DESCRIPTION	BY CKD
1	7/22/91	PER ENGINEERS COMMENTS	EZ RAO
2	9/12/91	PER ENGINEERS COMMENTS	PV RAO
3	10/2/91	PER OWNERS COMMENTS	JD RAO
4	6/11/93	AS BUILT	PV RAO

PRELOAD
839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

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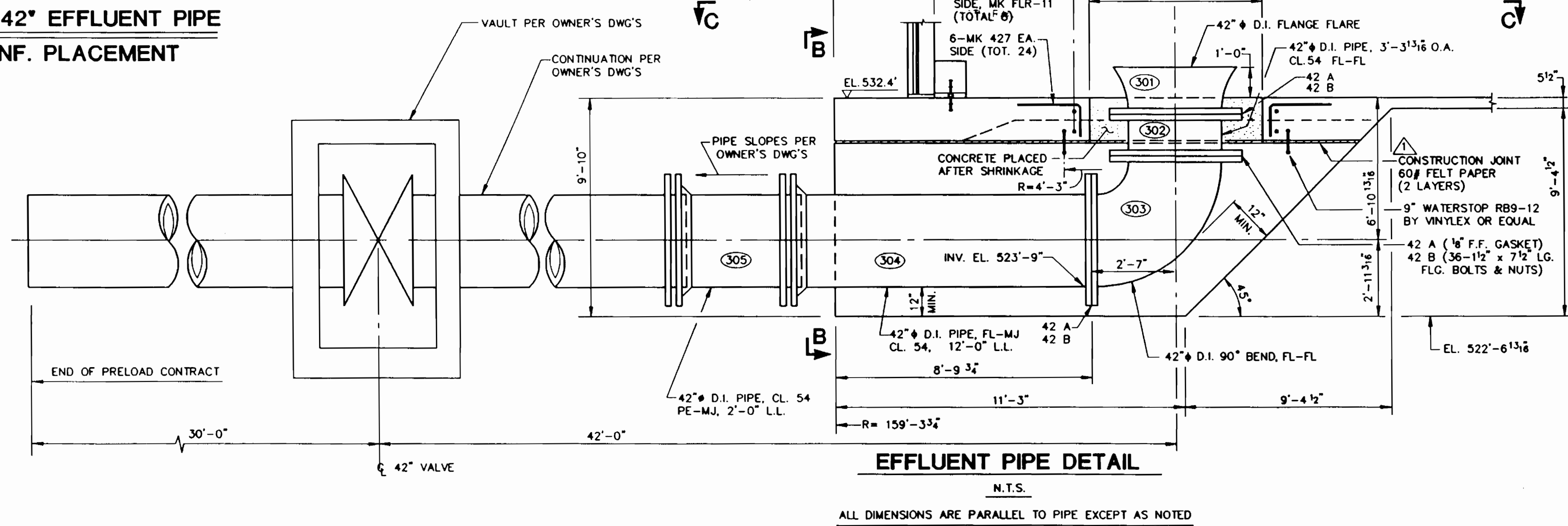
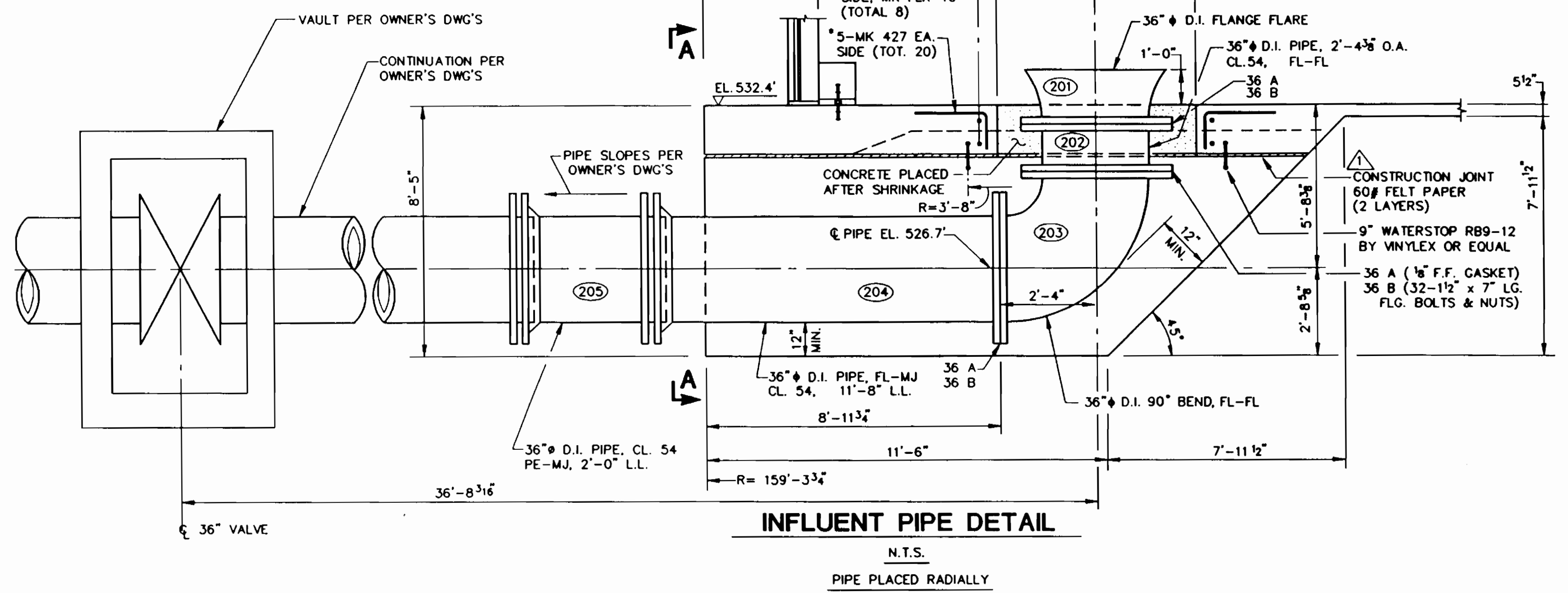
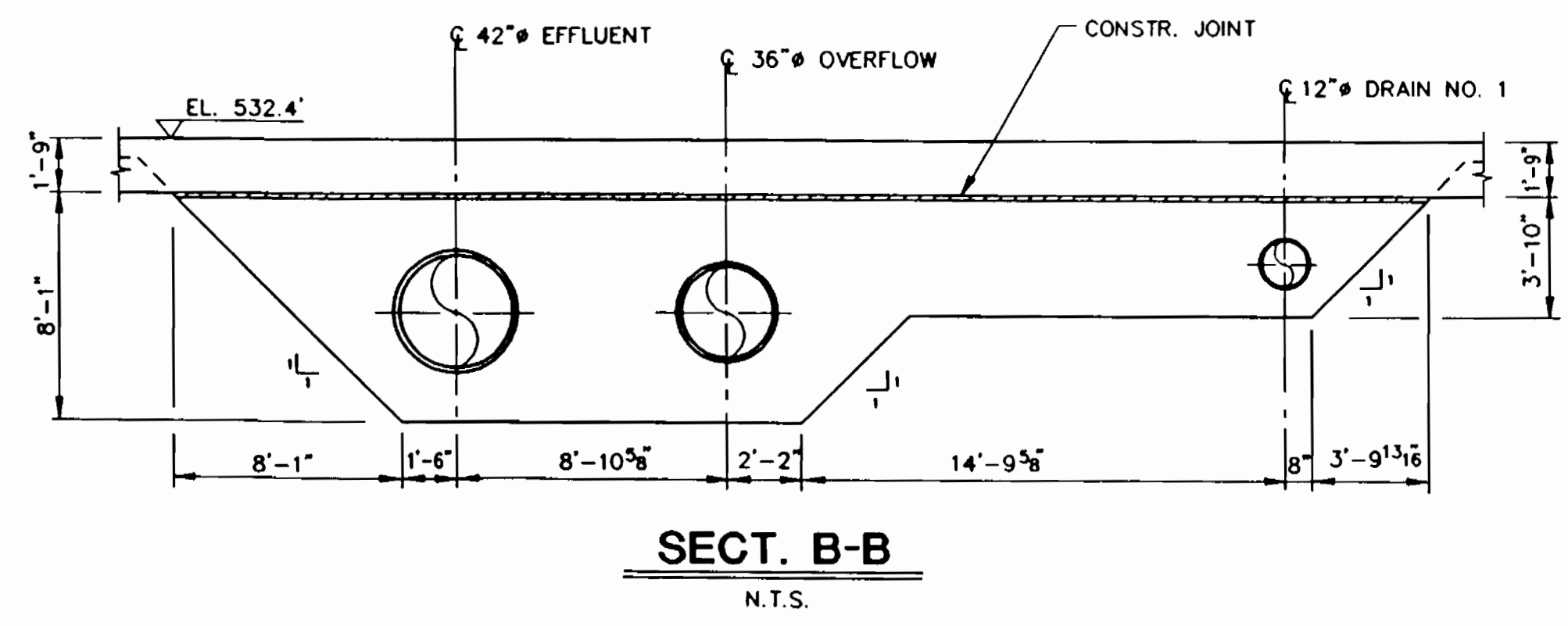
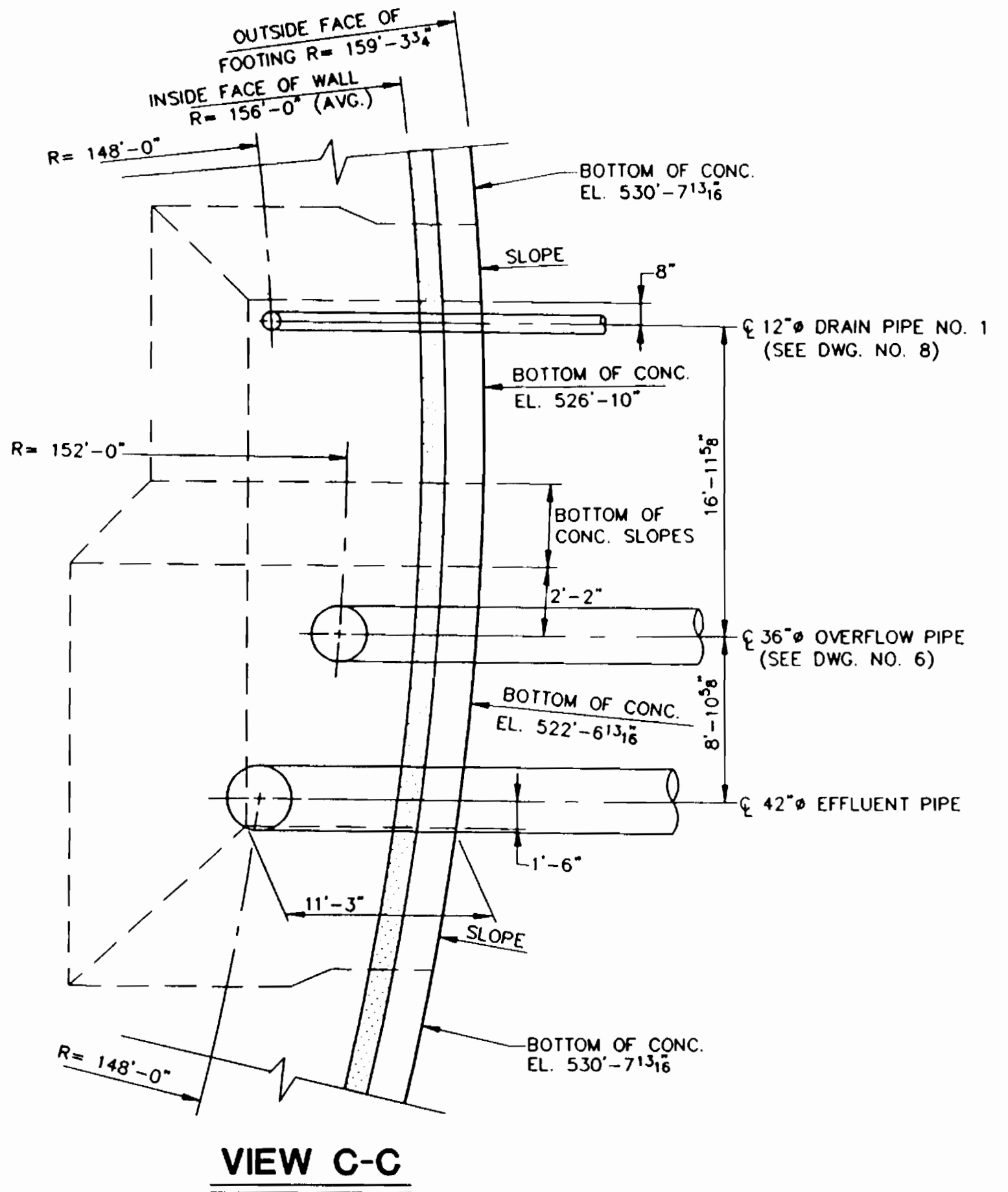
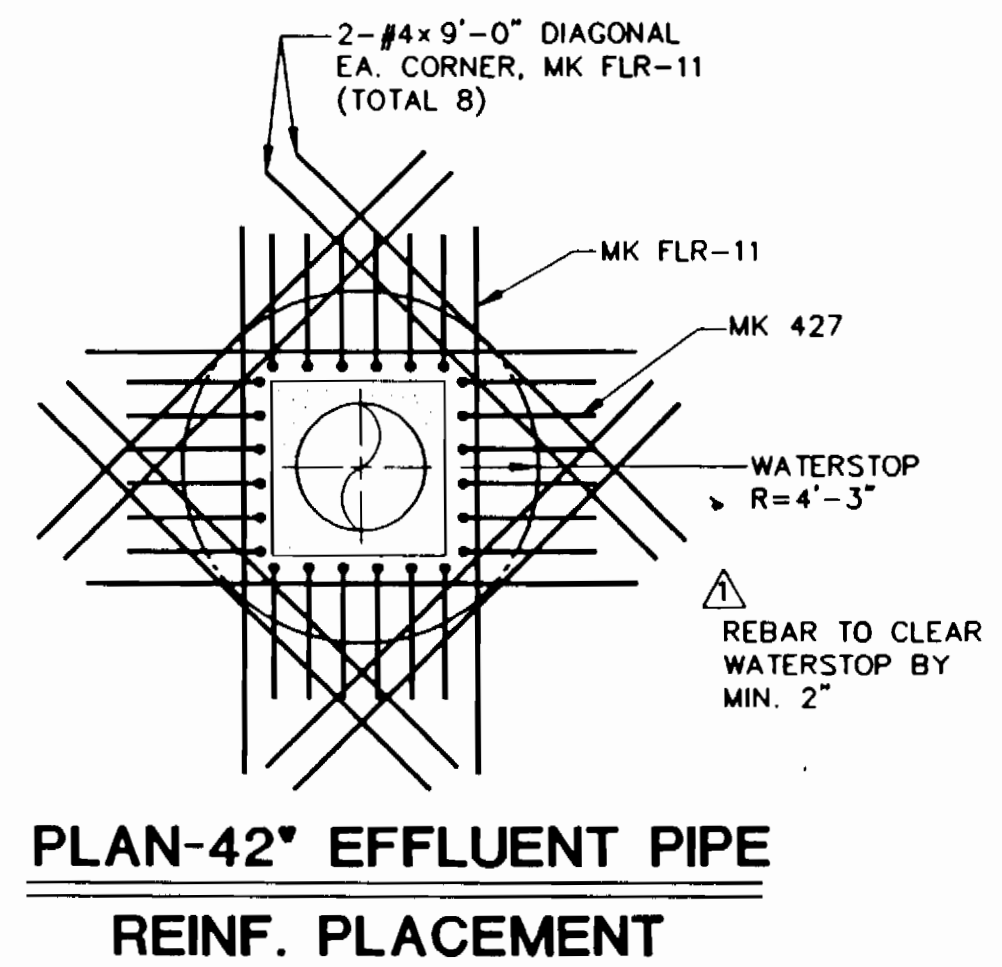
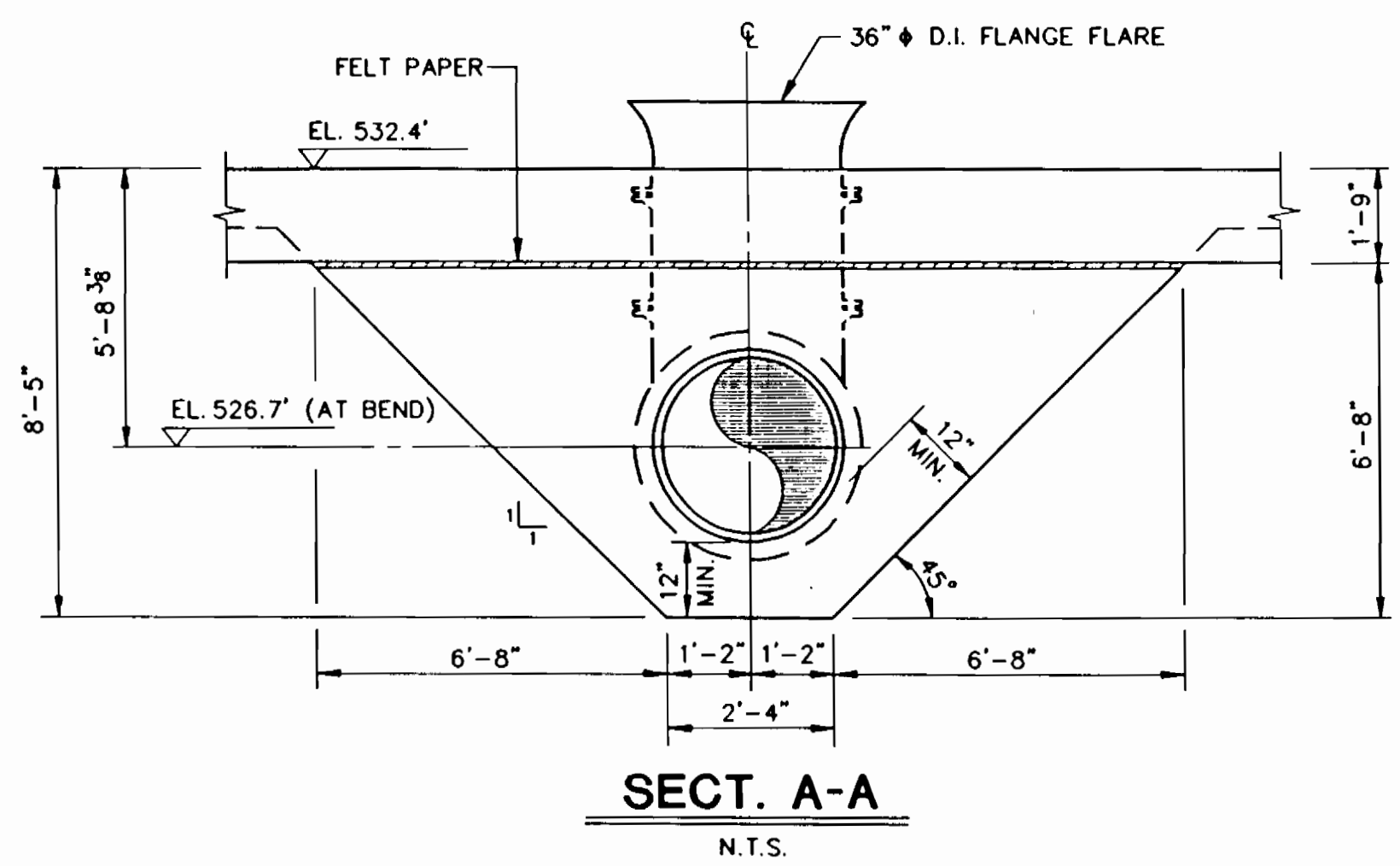
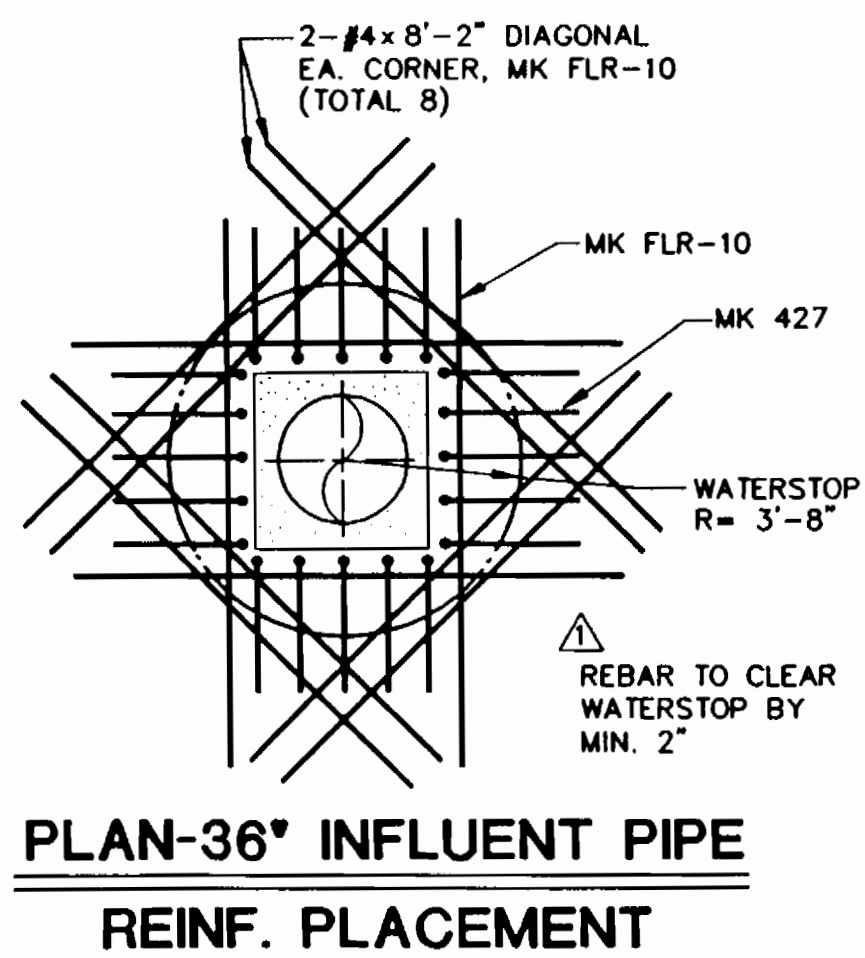
**ONE 20.0 M.G. WATER STORAGE TANK
CATONVILLE, MARYLAND**

DWG. NO. 90-1983F
OVERFLOW DETAILS

DRAWN: E SCALE: NONE CONTRACT NUMBER: 91 PD 005
DESIGNED: RAO DRAWING NUMBER: MD
CHECKED: TM DATE: 5/20/91 NUMBER: 88903-6

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3385 w/6



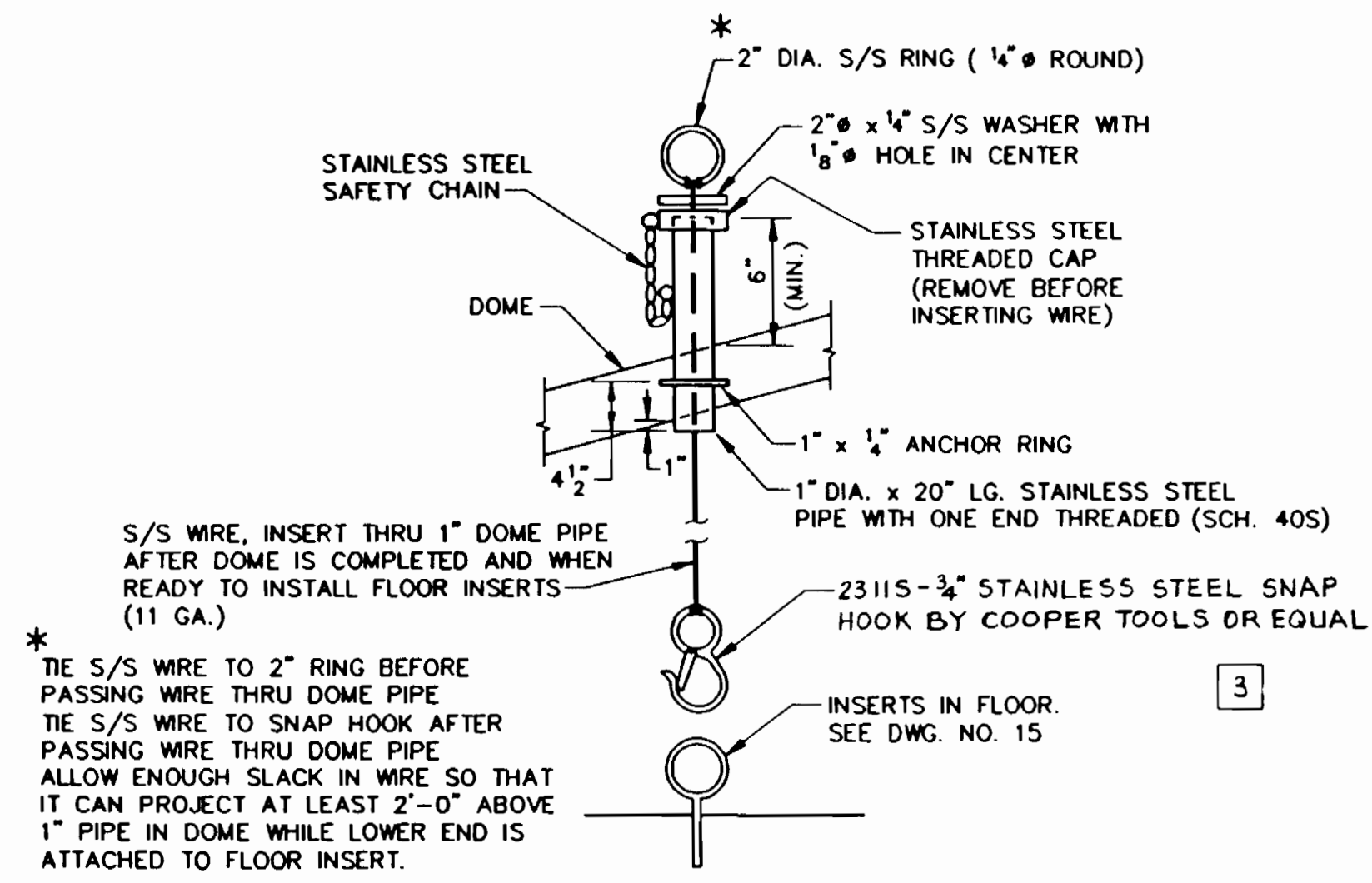
- NOTES:
1. PIPE COATINGS TO BE PER OWNER'S SPECIFICATIONS.
 2. ALL MECHANICAL JOINTS NOT ENCASED IN CONCRETE TO HAVE RETAINER GLANDS.

REVISIONS			
NO.	DATE	DESCRIPTION	BY CKD
1	10/2/91	PER OWNERS COMMENTS	JD RAO
2	6/14/93	AS BUILT	PV RAO

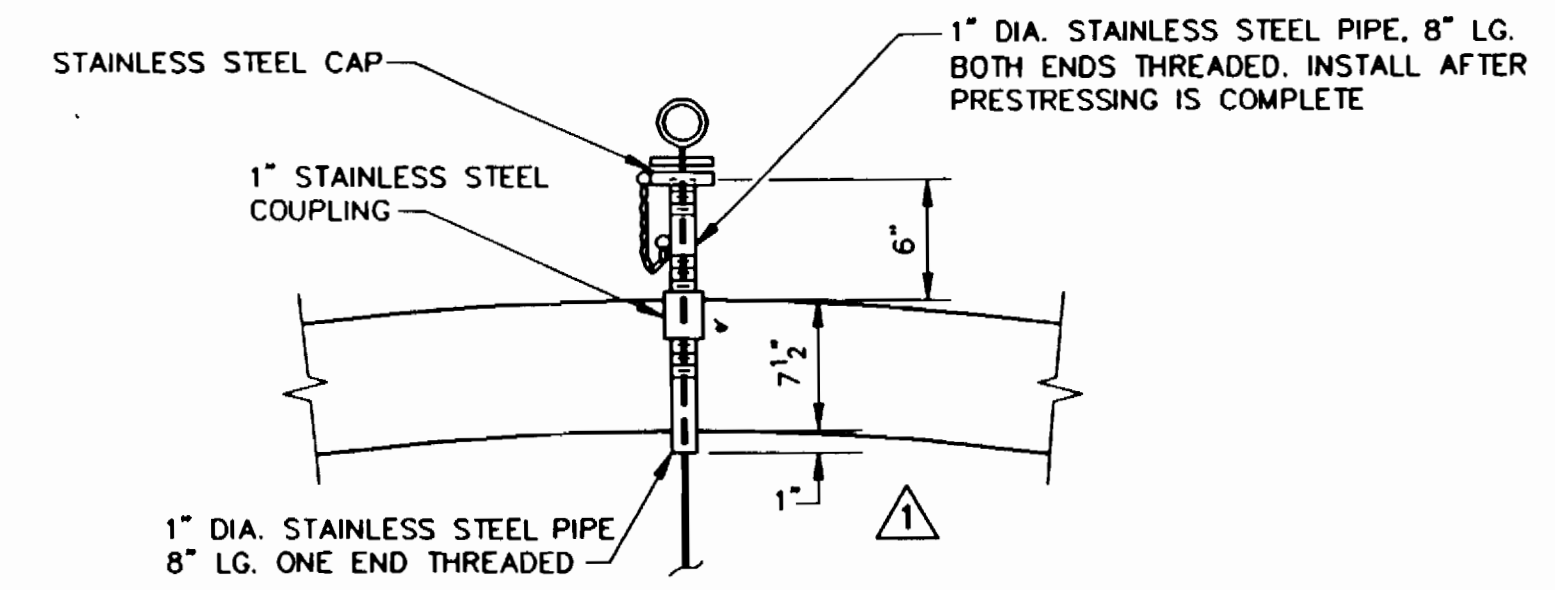
PRELOAD
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HO. CO. CONT. NO. 44-3385
 HO. CO. C.P. NO. W-8051
WORKING DRAWING
ONE 20.0 M.G. WATER STORAGE TANK
CATONVILLE, MARYLAND
 DWG. NO. 90-1983G
INFLUENT & EFFLUENT DETAILS
 DRAWN: JD SCALE: N.T.S. CONTRACT NUMBER: 91 PD 005
 DESIGNED: RAO
 CHECKED: TM DATE: 5-20-91 DRAWING NUMBER: 88903-7

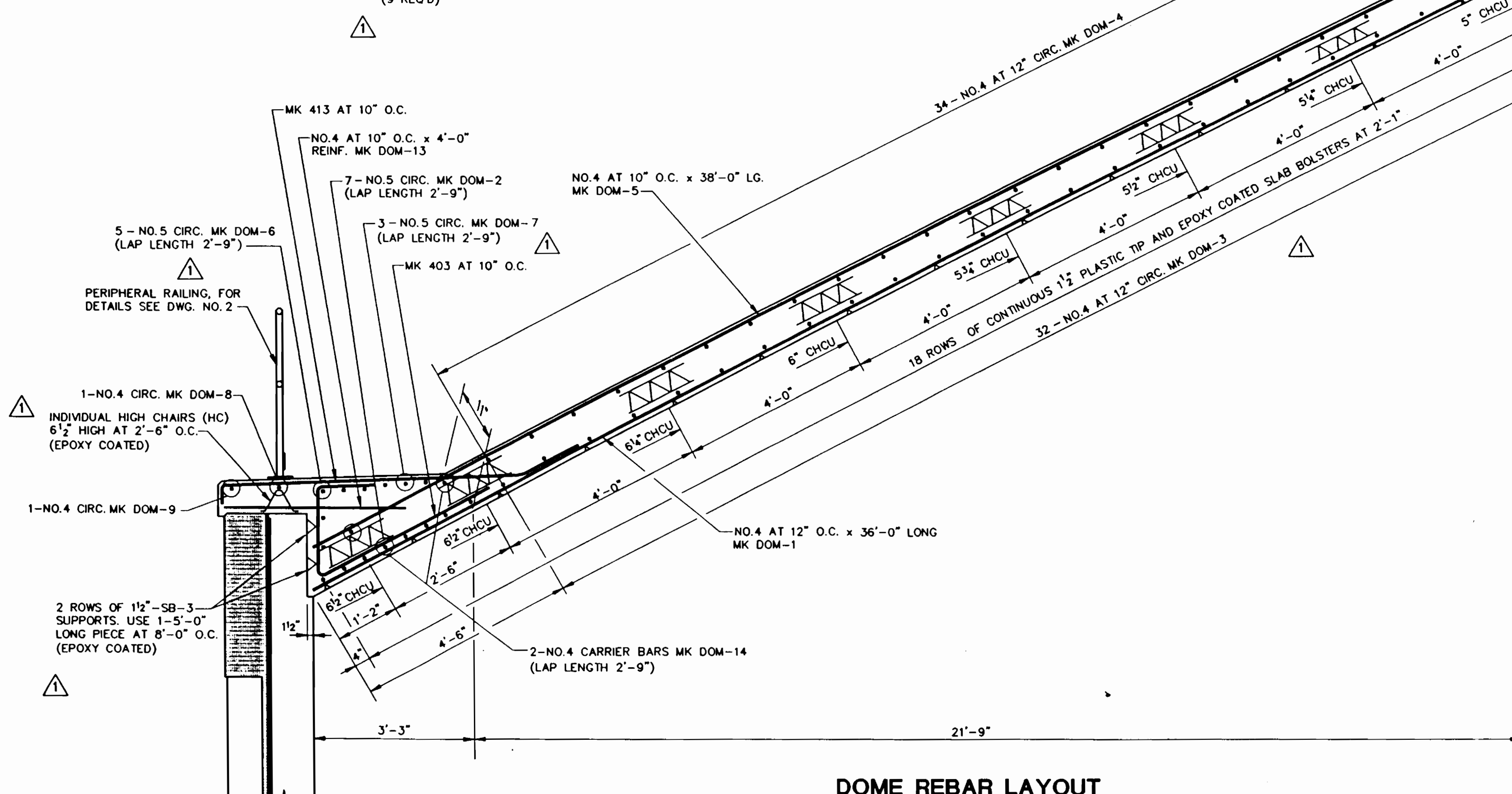
3385 w/7



DETAIL 3
FLOOR SETTLEMENT
MONITORING ASSEMBLY
(9 REQ'D)

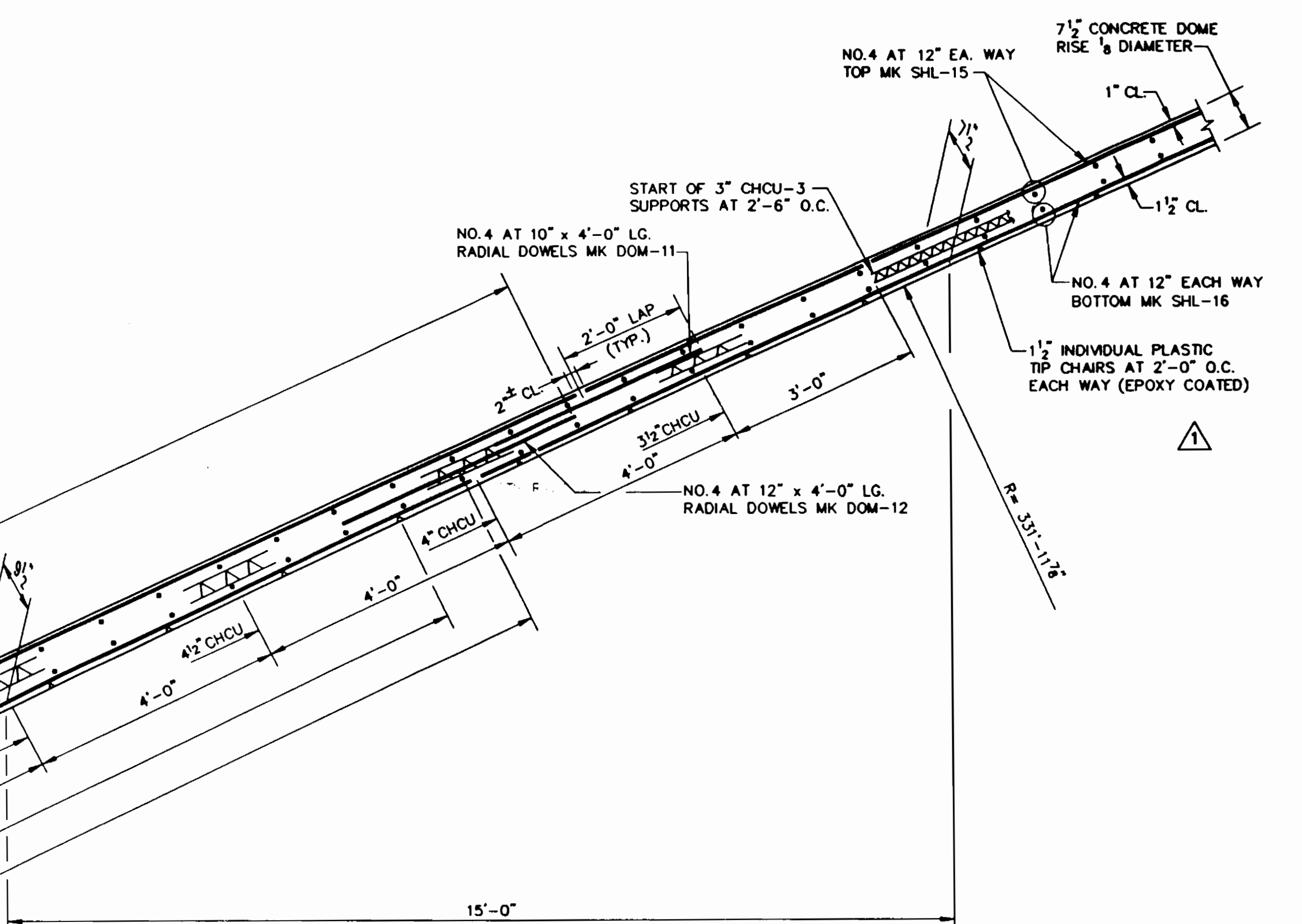


DETAIL 3A
(FOR INFORMATION NOT SHOWN SEE DETAIL 3)
(1 REQ'D)

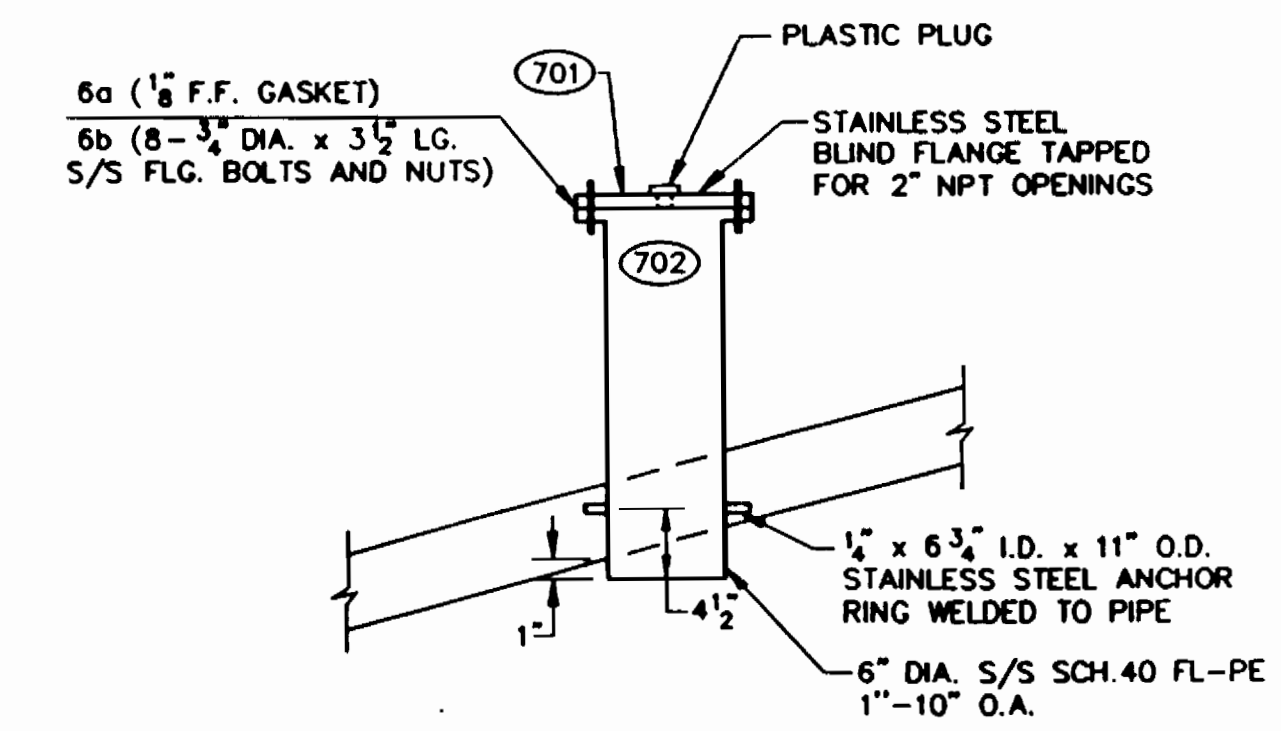


DOMe REBAR LAYOUT

- NOTES:
1. FOR INFORMATION NOT SHOWN SEE DWG. NO. 3.
 2. FOR LOCATION OF VENTS AND INSERTS SEE DWG. NO. 17.
 3. CHCU SUPPORT (3 1/2\"/>
 4. ALL REBAR SUPPORTS FOR DOME TO BE EPOXY COATED. SUPPORTS RESTING ON WOOD DECK TO HAVE PLASTIC TIPS ALSO - SEE OWNERS SPECS - ITEM 18, PAGE 6 OF ADDENDUM NO. I.



EYE NUT DETAIL
FOR LOCATION SEE DWG. NO. 17
(9 REQUIRED)



LEVEL PROBE DETAIL

3385 w/9

HO. CO. CONT NO. 44-3385
HO. CO. C.P. NO. W-8051

WORKING DRAWING

ONE 20.0 M.G. WATER STORAGE TANK
CATONVILLE, MARYLAND

DWG. NO. 90-1983I

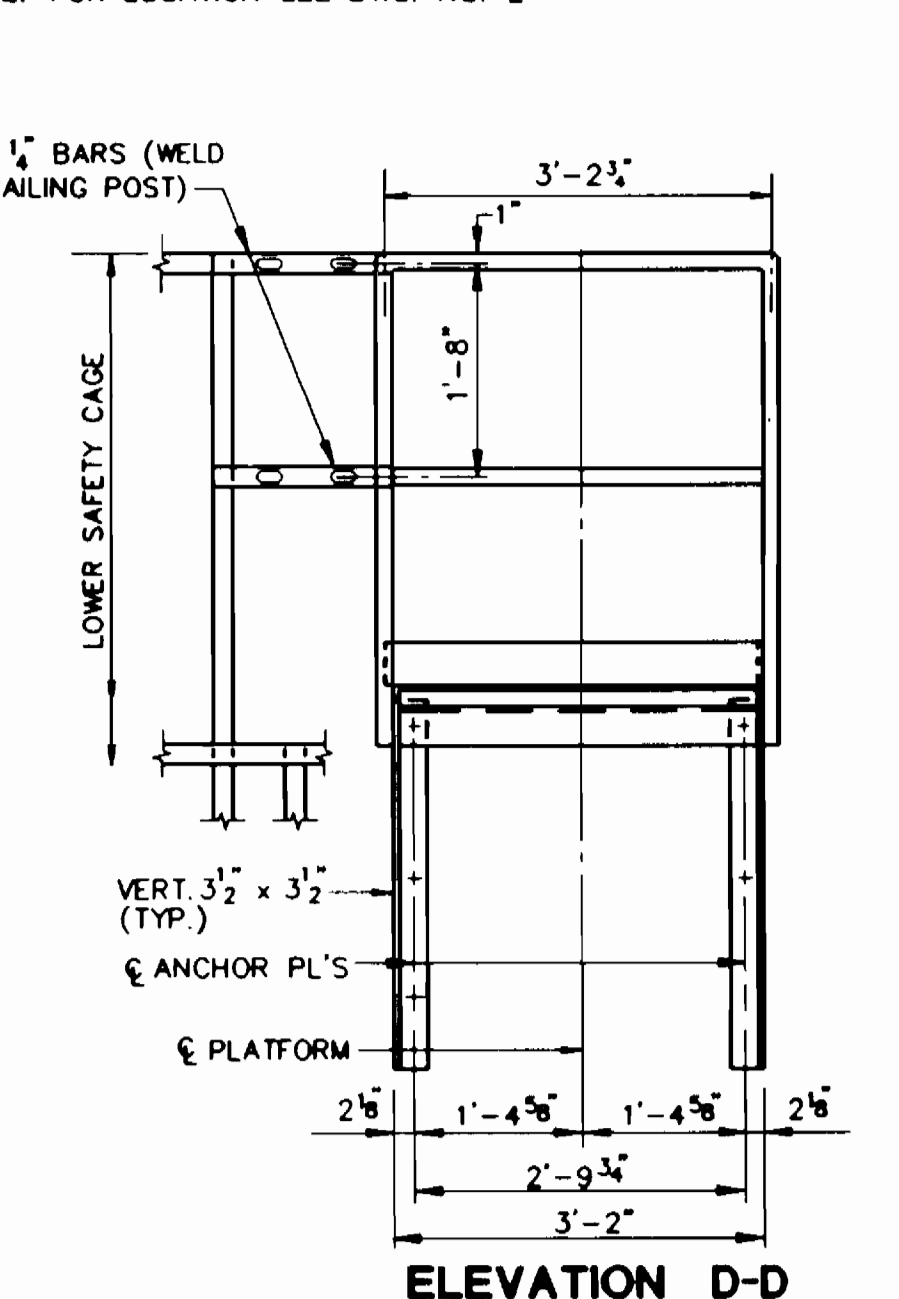
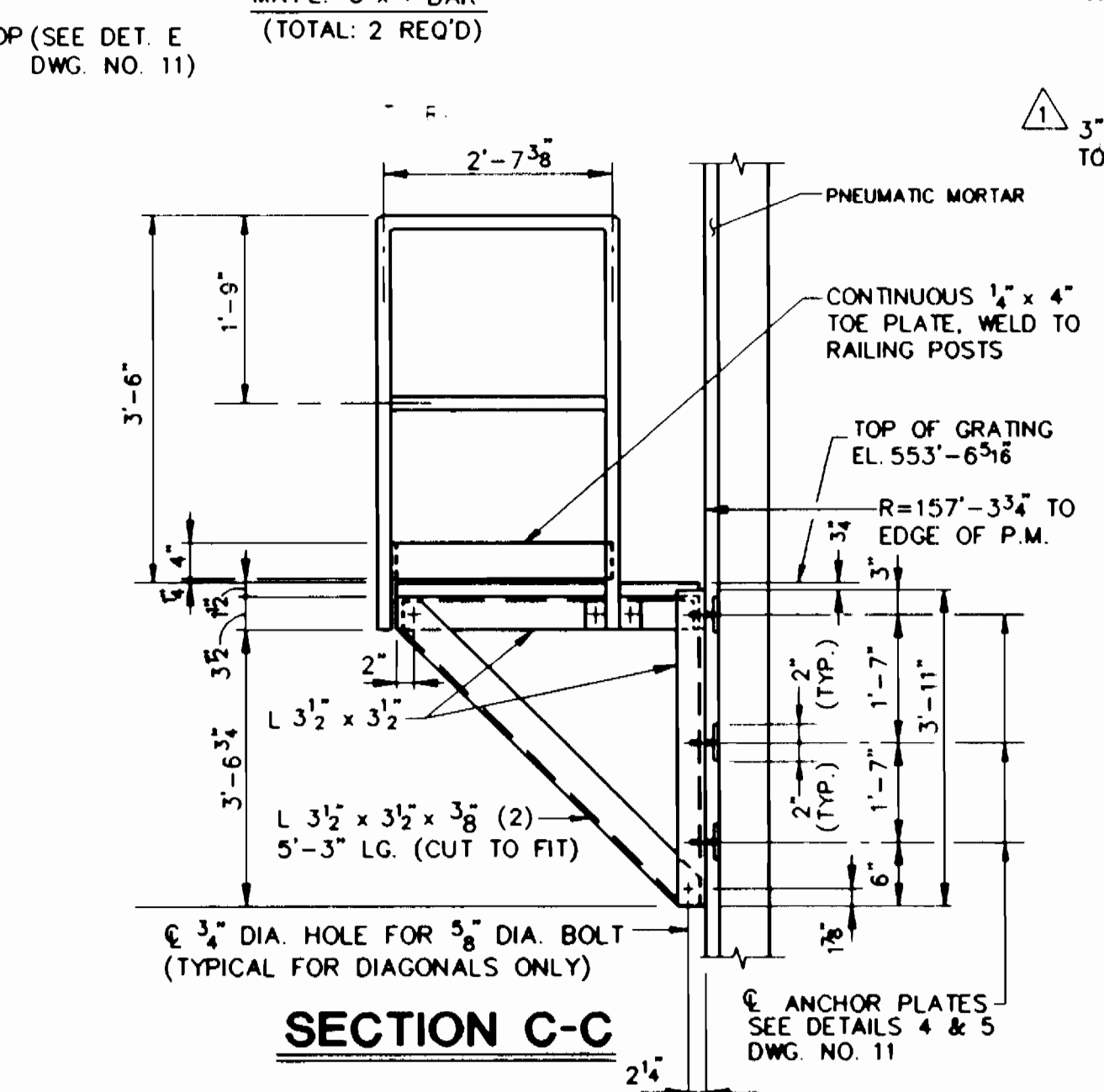
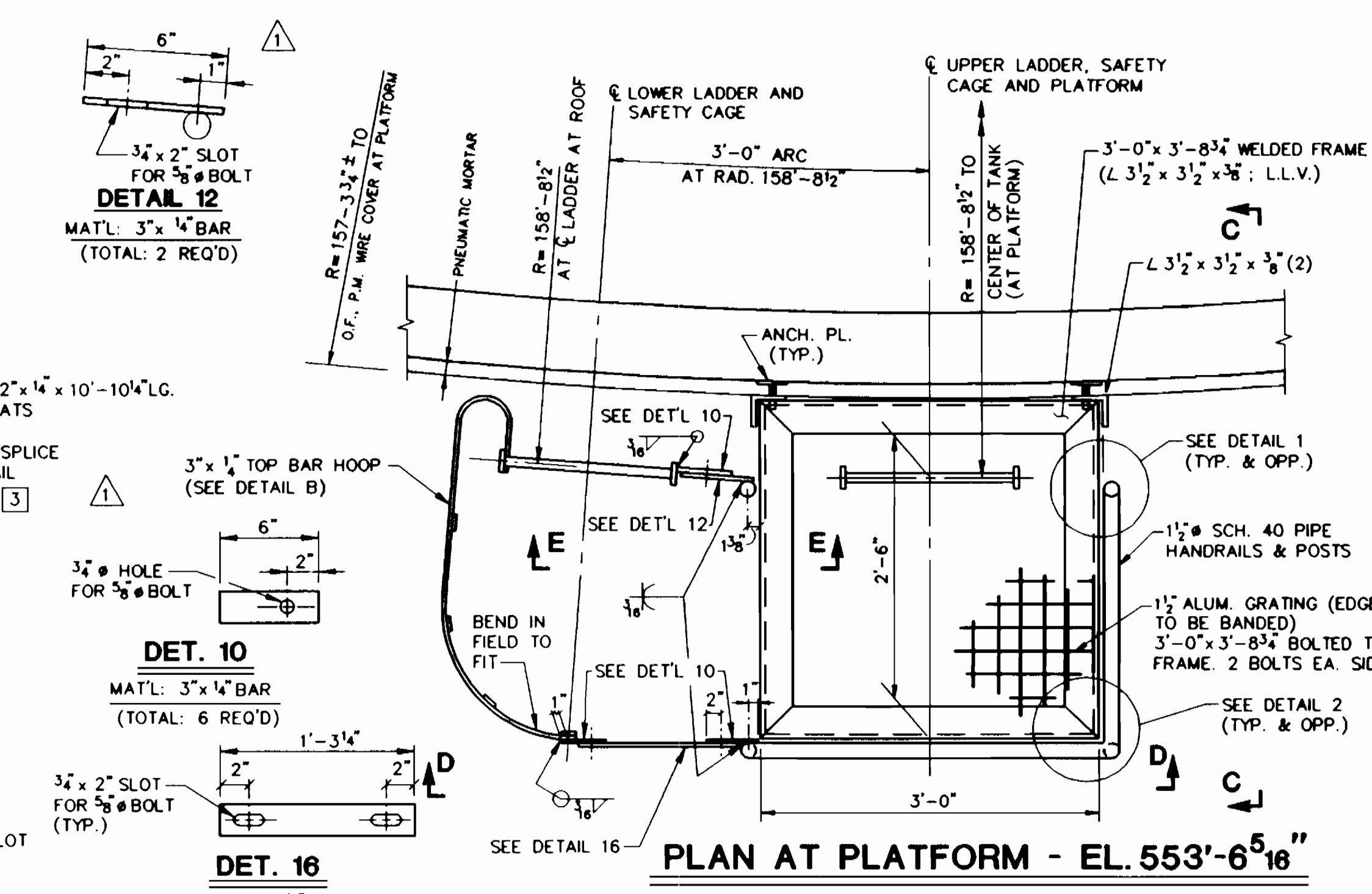
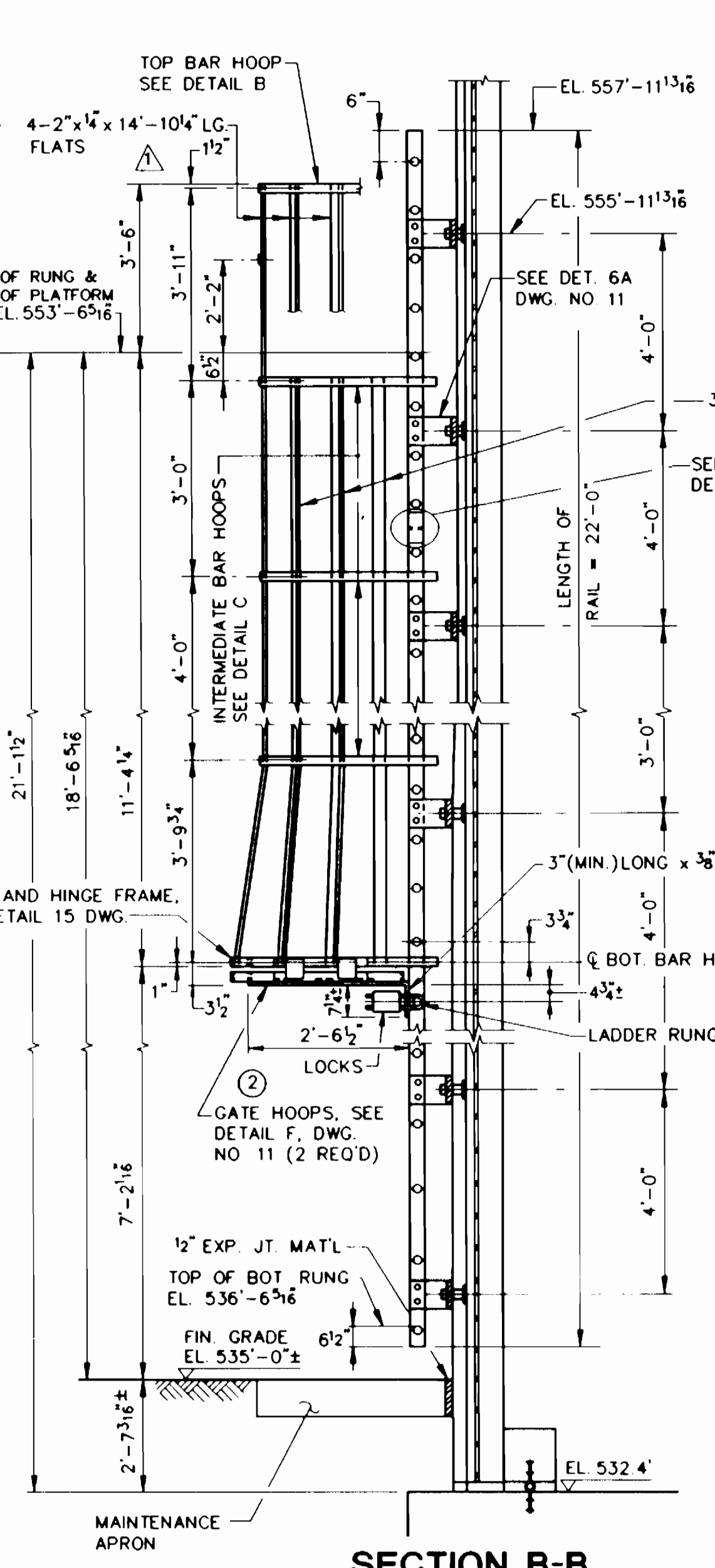
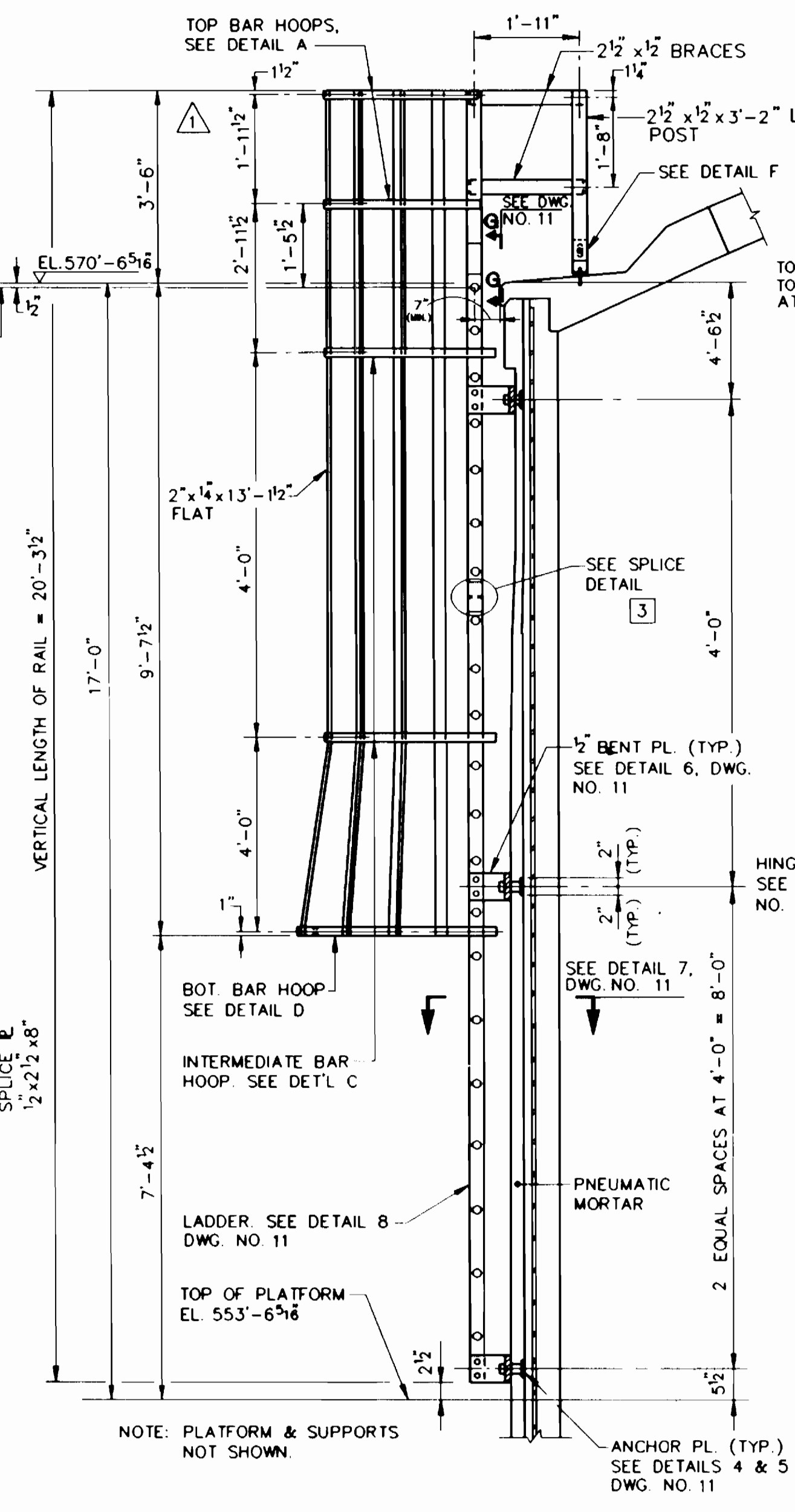
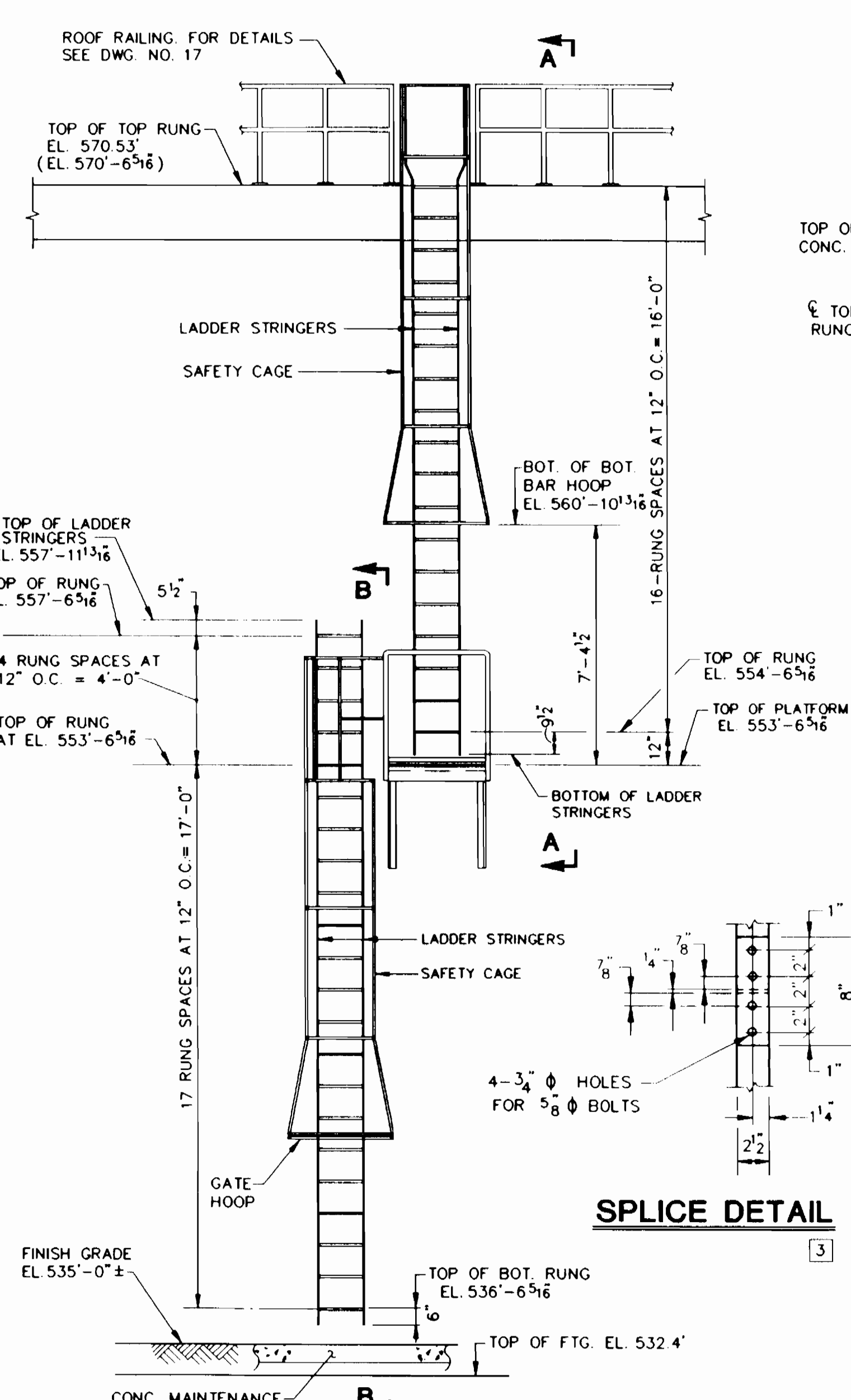
DOMe REBAR LAYOUT

REVISIONS			
NO.	DATE	DESCRIPTION	BY CKD
1	7/22/91	PER ENGINEERS COMMENTS	PV RAO
2	9/12/91	PER ENGINEERS COMMENTS	PV RAO
3	11/8/92	DETAIL 3 AS INDICATED	PV RAO
4	6/14/93	AS BUILT	PV RAO

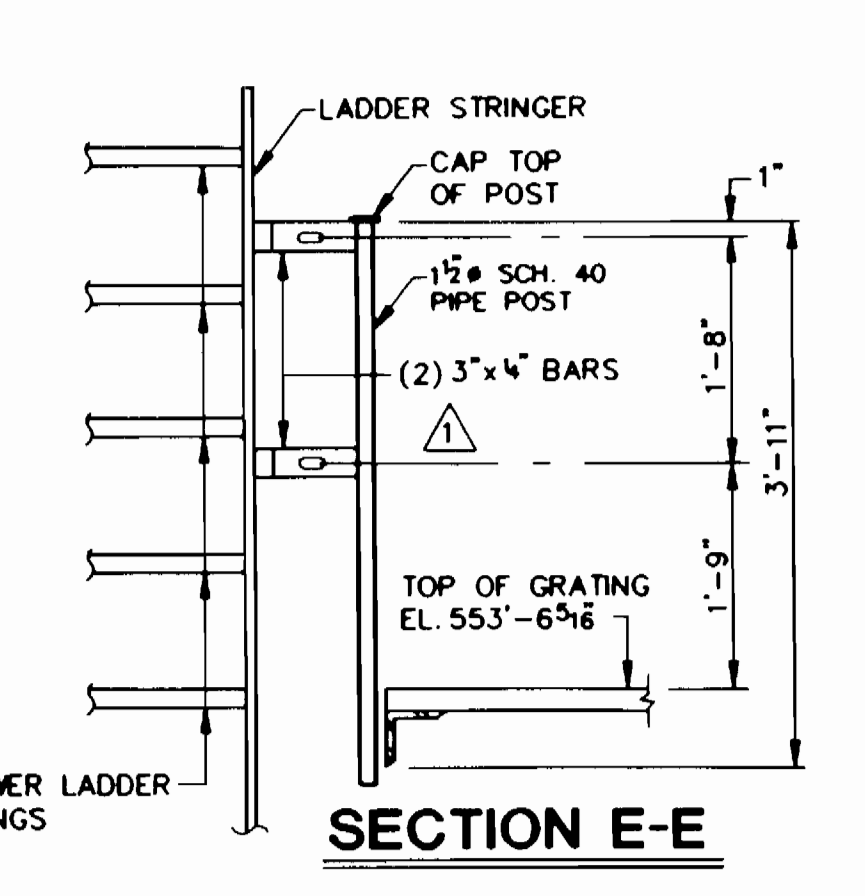
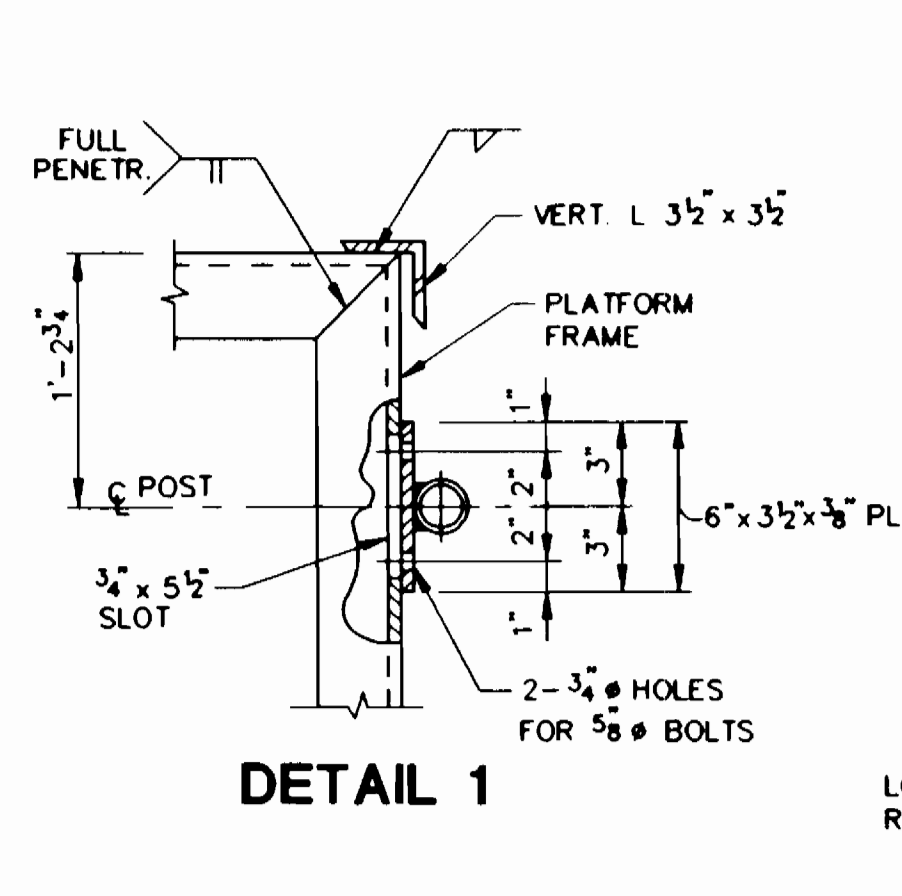
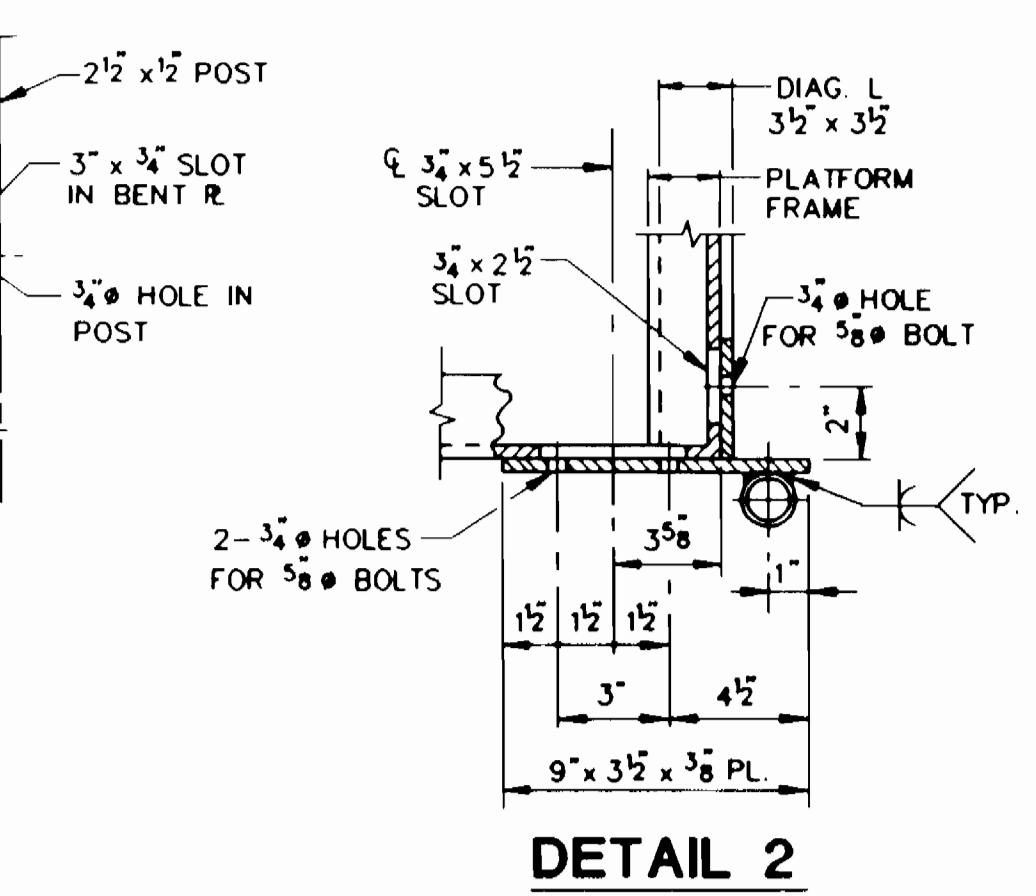
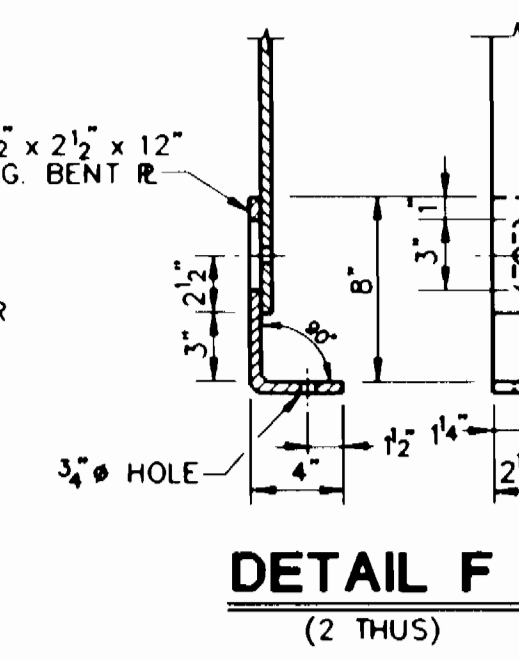
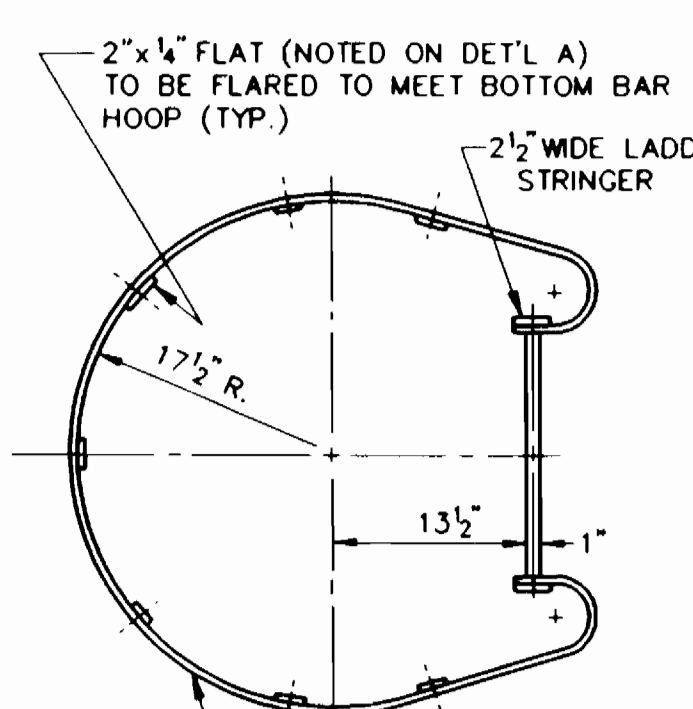
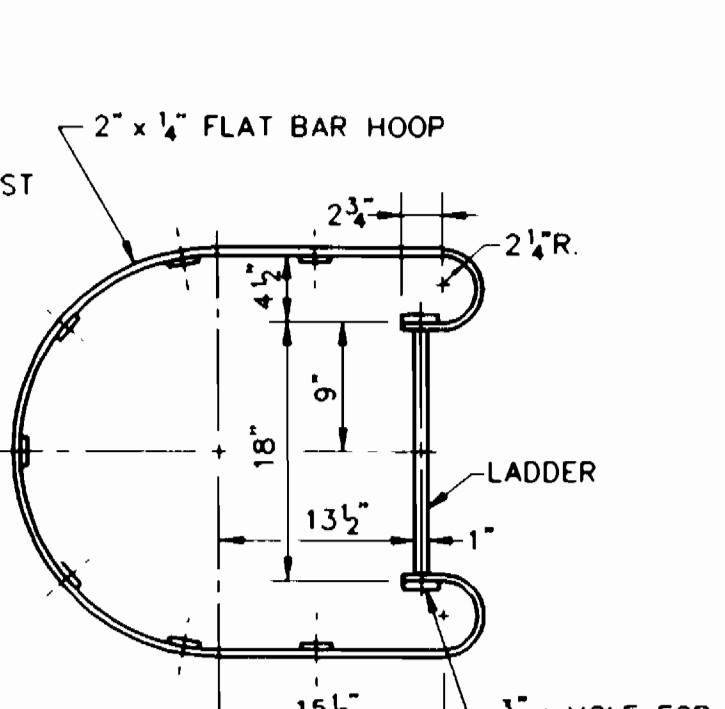
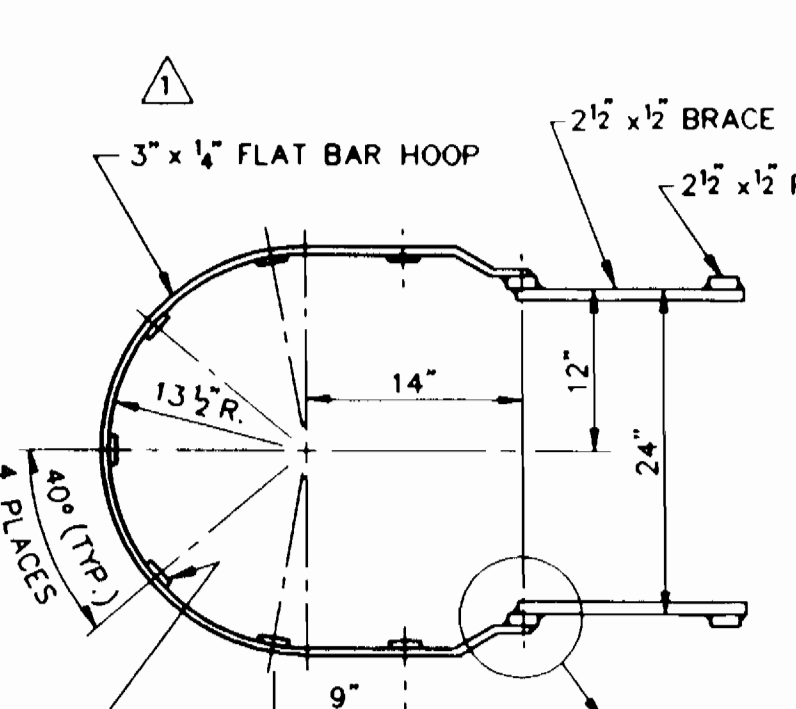
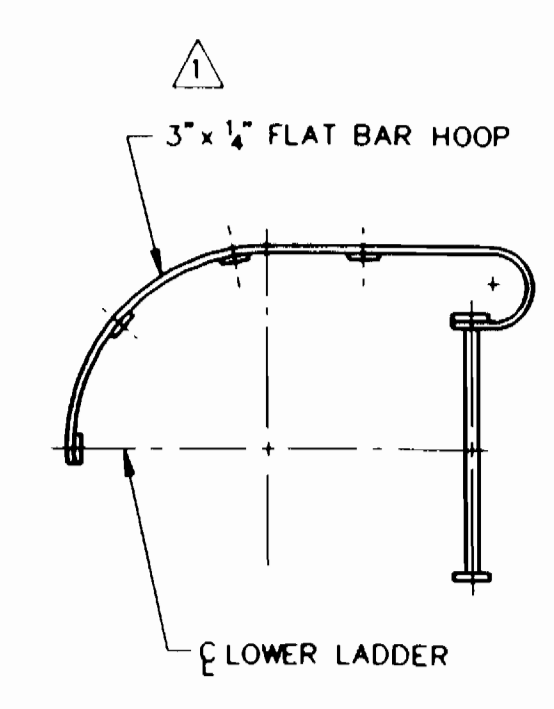
PRELOAD
839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530
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DRAWN: PV	SCALE: N.T.S.	CONTRACT NUMBER: 91 PD 005
DESIGNED: RAO	DATE: 5-20-91	DRAWING NUMBER: MD 88903-9
CHECKED: TM		

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. CONSTRUCTION SPECIFICATIONS AND PROCEDURES - REV. 1-90



WORK THIS DRAWING WITH DWG'S NO. 2 & NO. 11



REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	7-22-91	PER ENGR'S COMMENTS	JD RAO
2	10/27/91	PER OWNER'S COMMENTS	JD RAO
3	7/17/92	ADDED SPLICE DETAIL	JD RAO
4	6/11/93	AS BUILT	PV RAO

PRELOAD
 839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

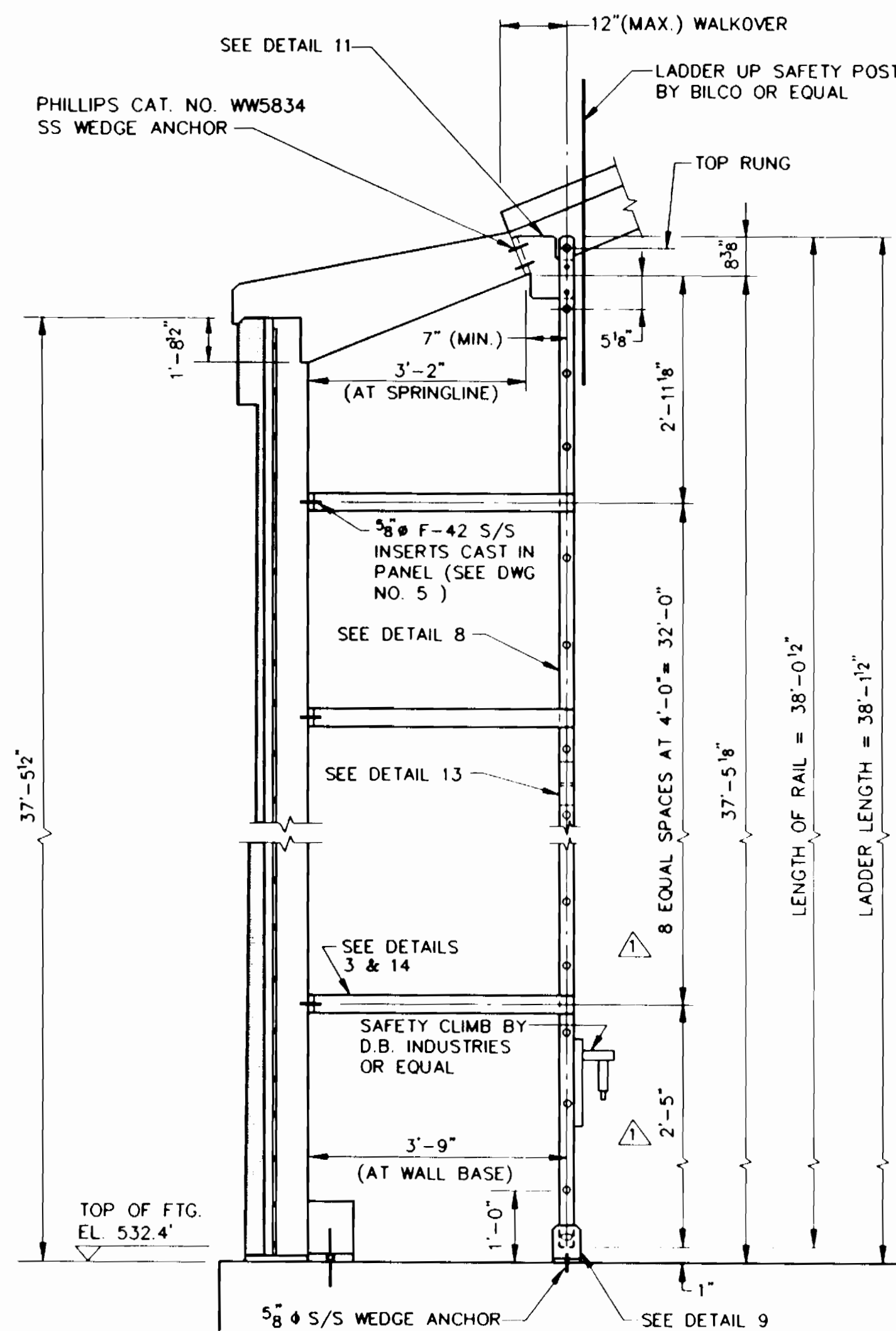
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ONE 20.0 M.G. WATER STORAGE TANK
CATONVILLE, MARYLAND
 DWG NO. 90-1983J
LADDER DETAILS I

DRAWN: JD SCALE: N.T.S. CONTRACT NUMBER: 91 PD 005
 DESIGNED: RAO DRAWING NUMBER: MD
 CHECKED: TM DATE: 5-20-91 DRAWING NUMBER: 88903-10

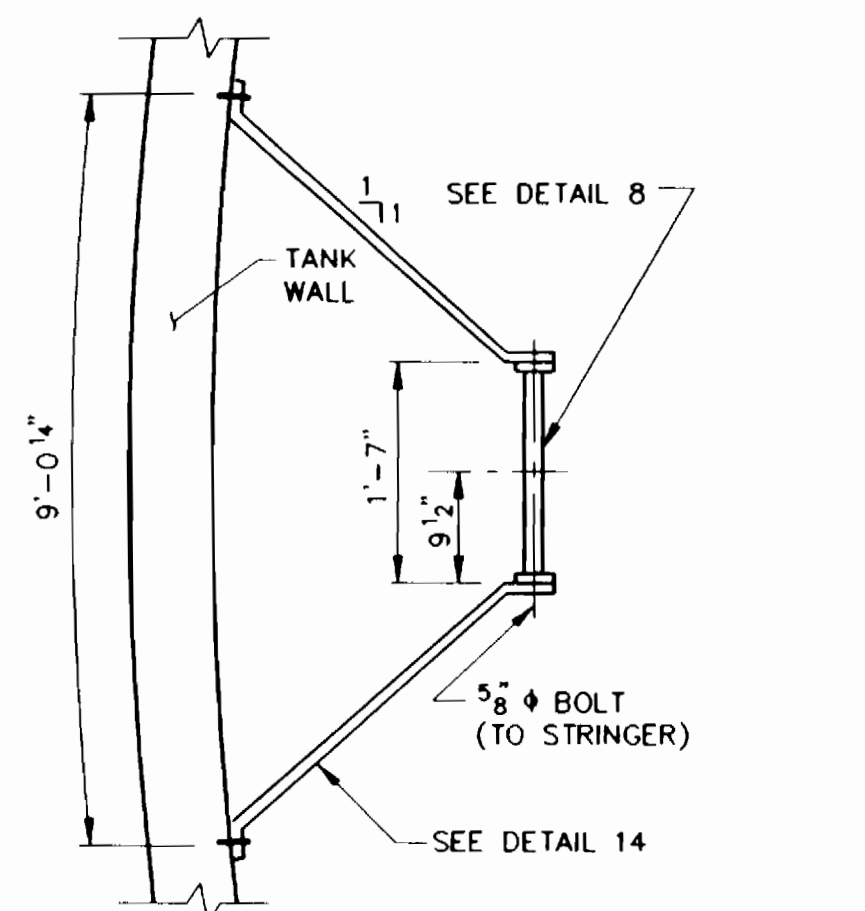
3385 w/10

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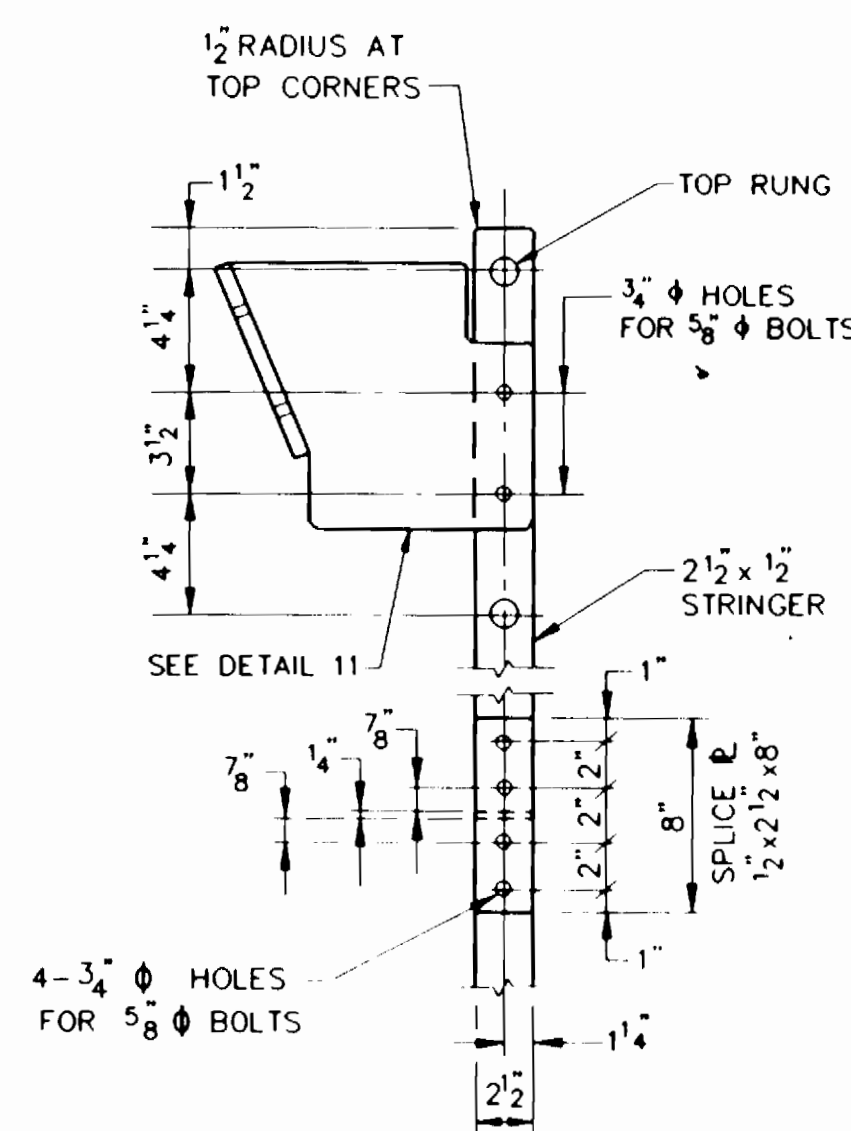


INSIDE LADDER ELEVATION

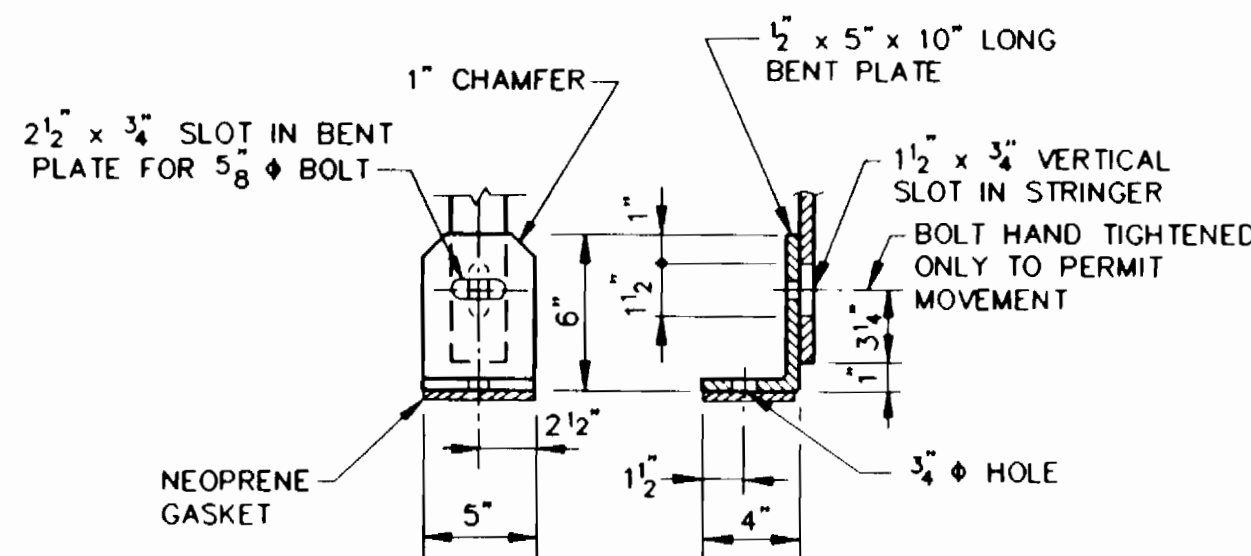
- LADDER AND COMPONENTS TO BE: ALUMINUM 6061 T6, EXCEPT AS NOTED.
- HARDWARE TO BE: STAINLESS STEEL



DETAIL 3

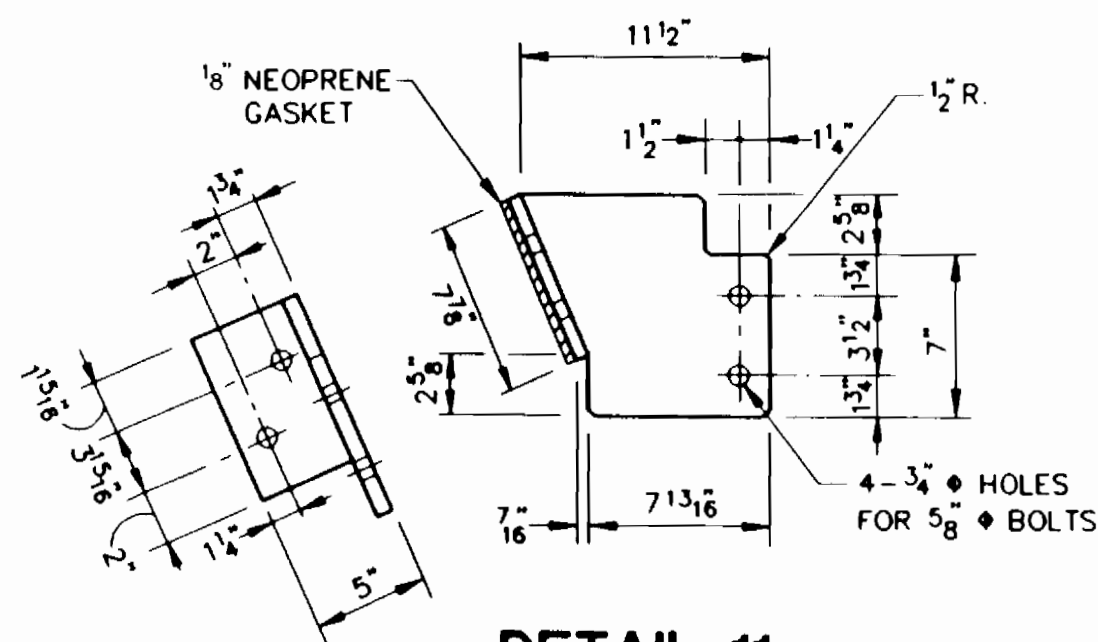


DETAIL 13



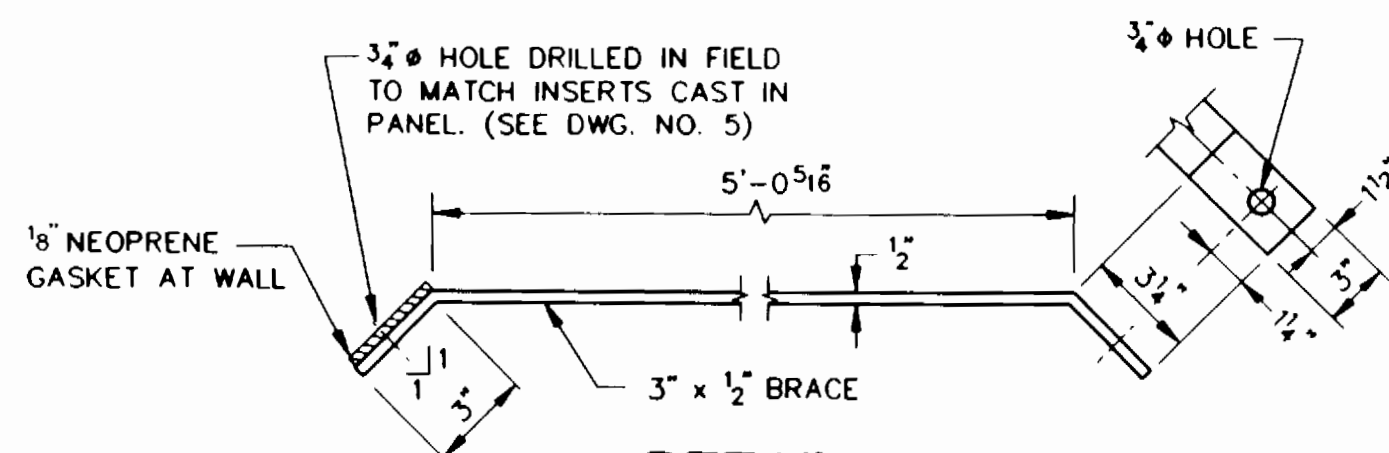
DETAIL 9

(2 THUS)



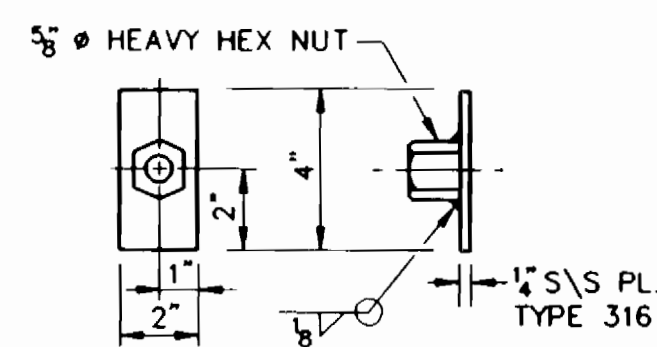
DETAIL 11

1- AS SHOWN
1- OPP. HAND



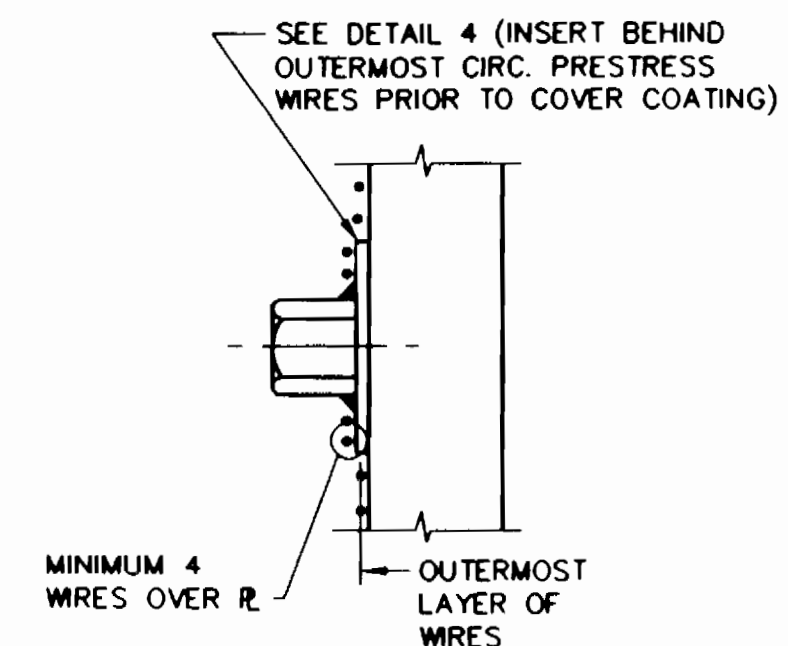
DETAIL 14

(18 REQUIRED)

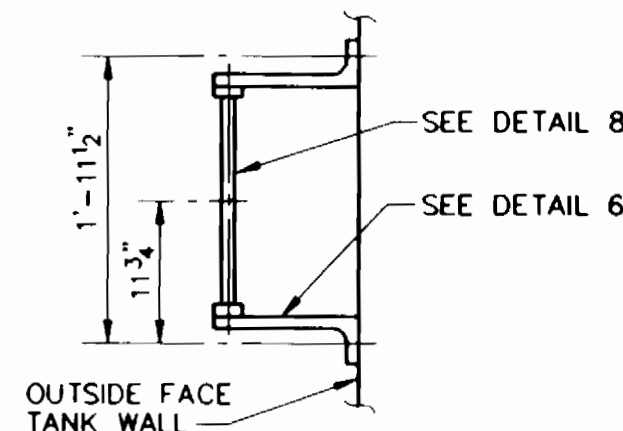


DETAIL 4

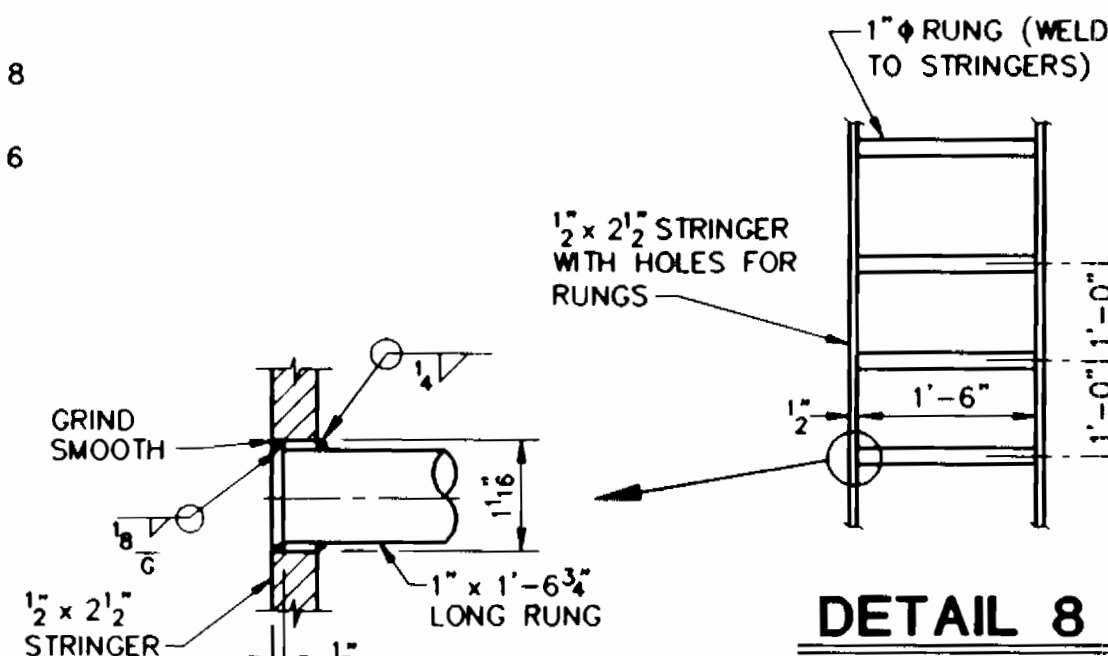
TOTAL REQ'D = 20



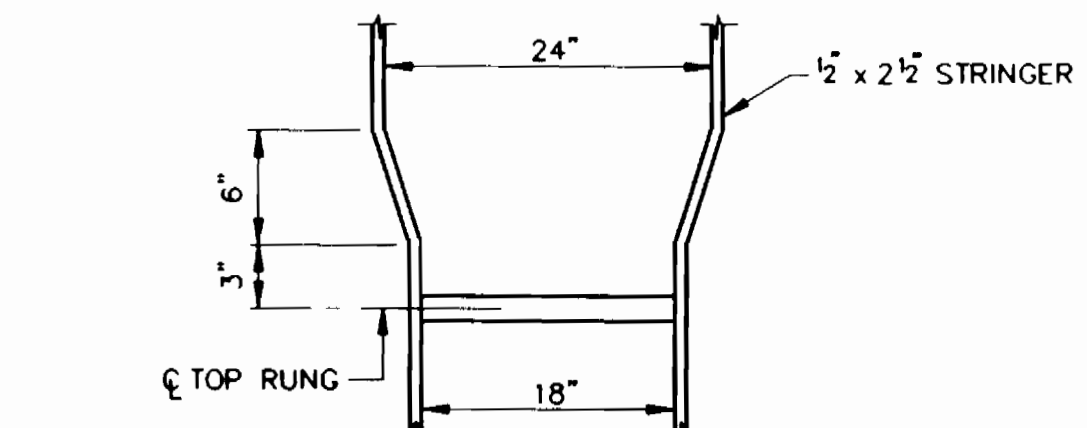
DETAIL 5



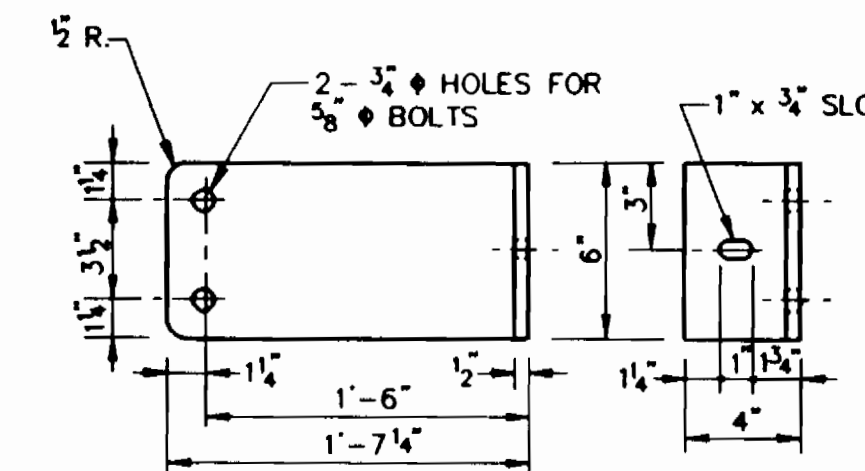
DETAIL 7



DETAIL 8

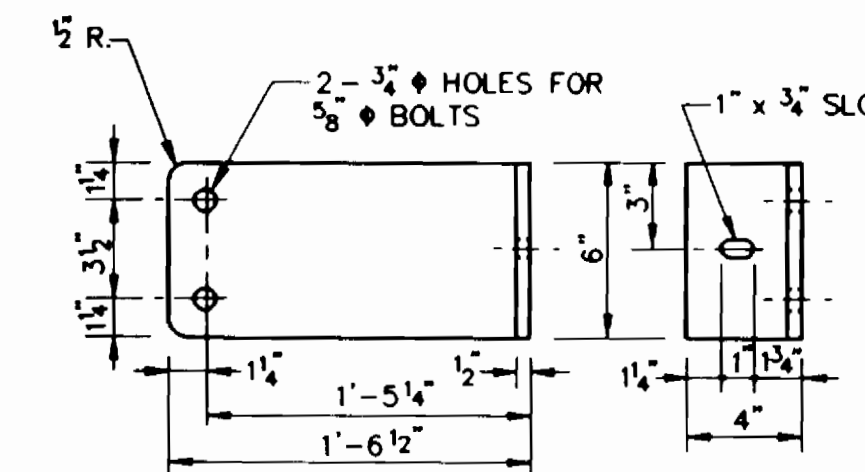


ELEV. G-G



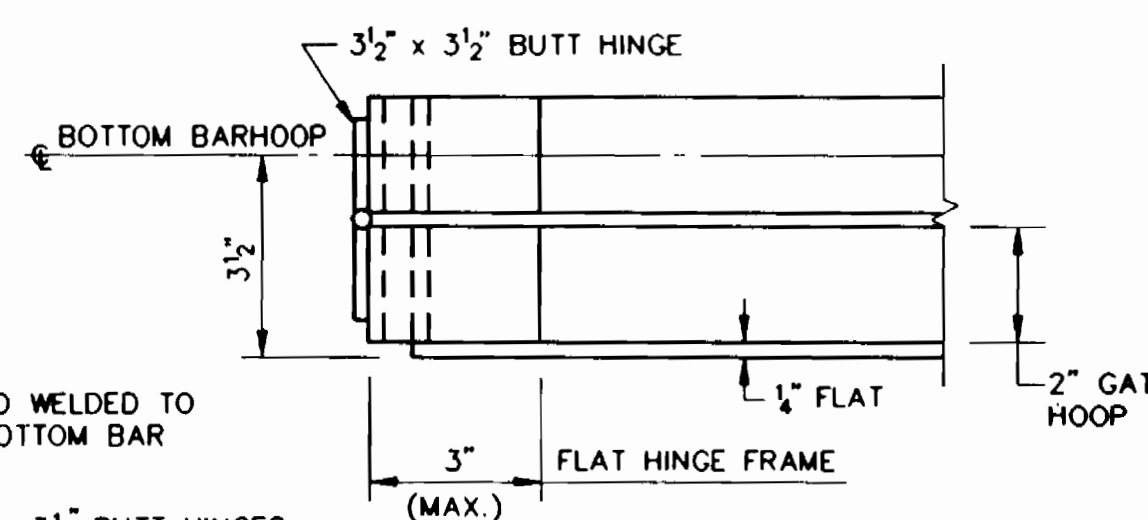
DETAIL 6

TOTAL 8 REQ'D

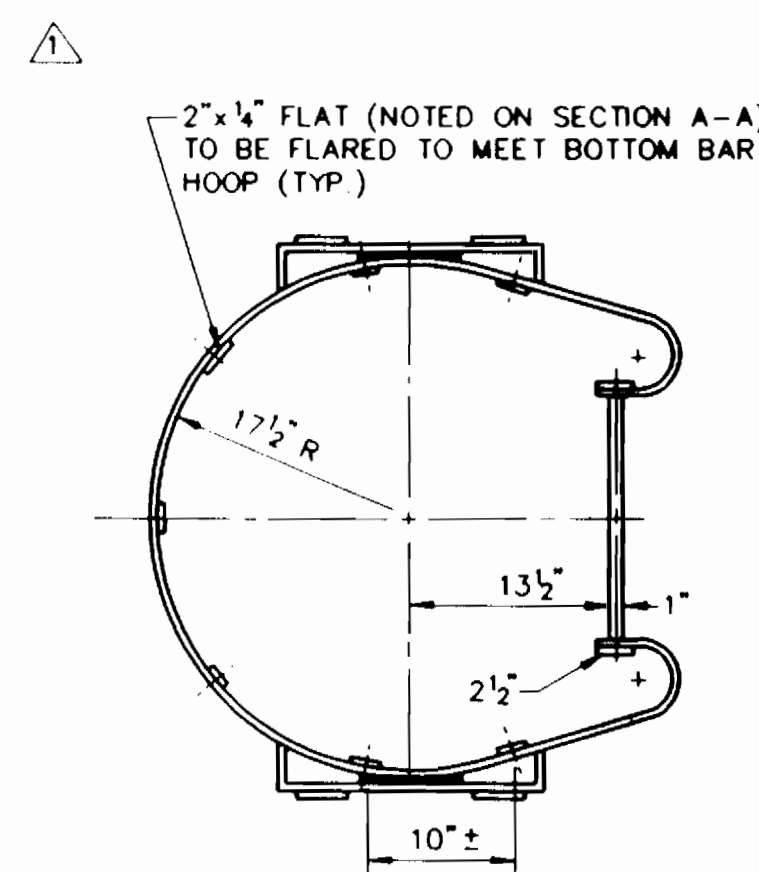


DETAIL 6A

TOTAL 12 REQ'D



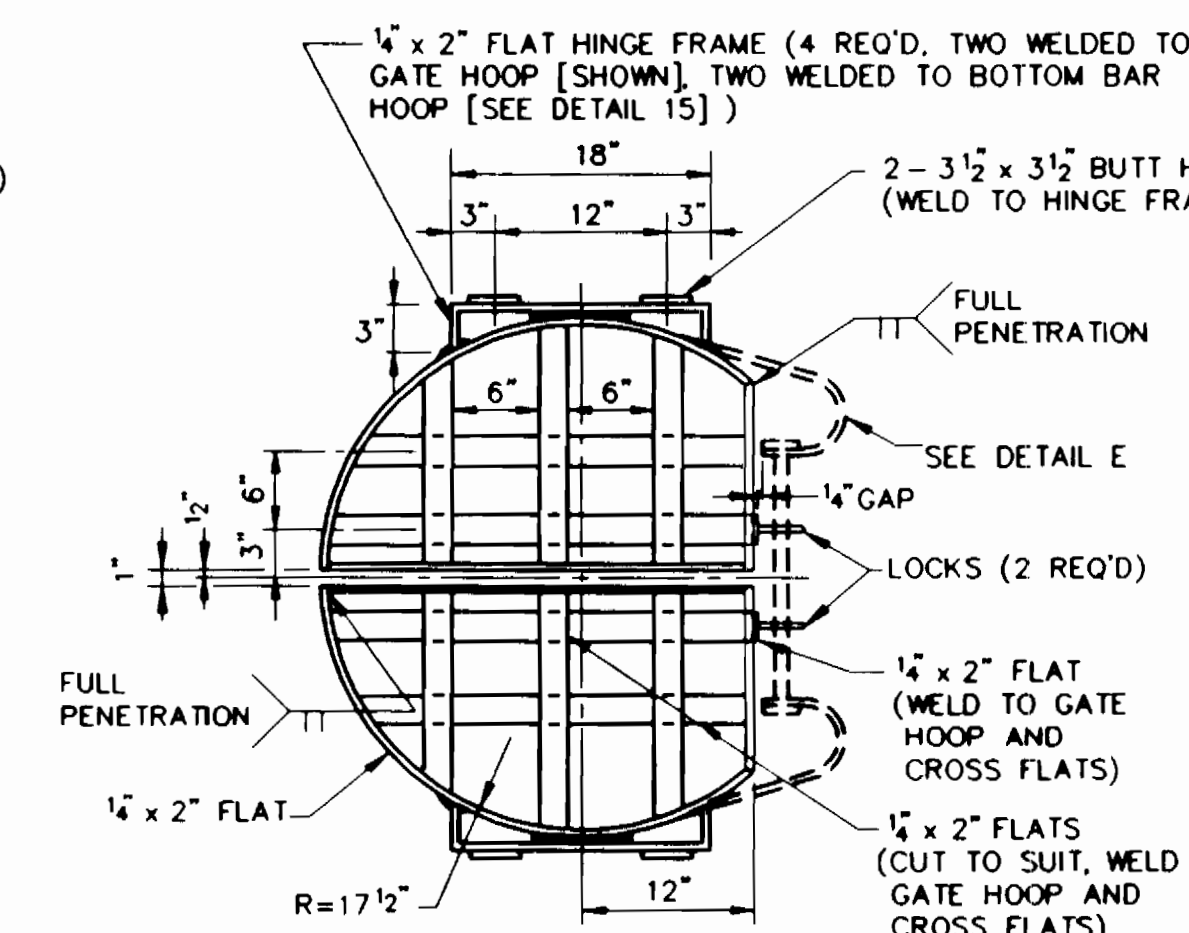
DETAIL 15



DETAIL E

BOTTOM BAR HOOP

(1 THUS)
(EXCEPT AS SHOWN, SAME AS
DETAILS A & C, DWG. NO. 10)



DETAIL F

GATE HOOPS

(1 THUS)

- NOTE:
- ALL MATERIAL (EXCEPT AS NOTED) TO BE: ALUMINUM 6061-T6
 - ANCHOR PLATES & HARDWARE TO BE STAINLESS STEEL (TYPE 316)
 - DISSIMILAR MATERIALS TO BE SEPERATED WITH NEOPRENE WASHERS.

NOTE:
DETAILS 4, 5, 6, 6A, 7, 15, E, F & ELEV. G-G PERTAIN TO OUTSIDE LADDER. SEE DWG. NO. 10.
DETAILS 3, 9, 11, 13 & 14 APPLY TO INSIDE LADDER.
DETAIL 8 IS COMMON FOR INSIDE & OUTSIDE LADDERS.

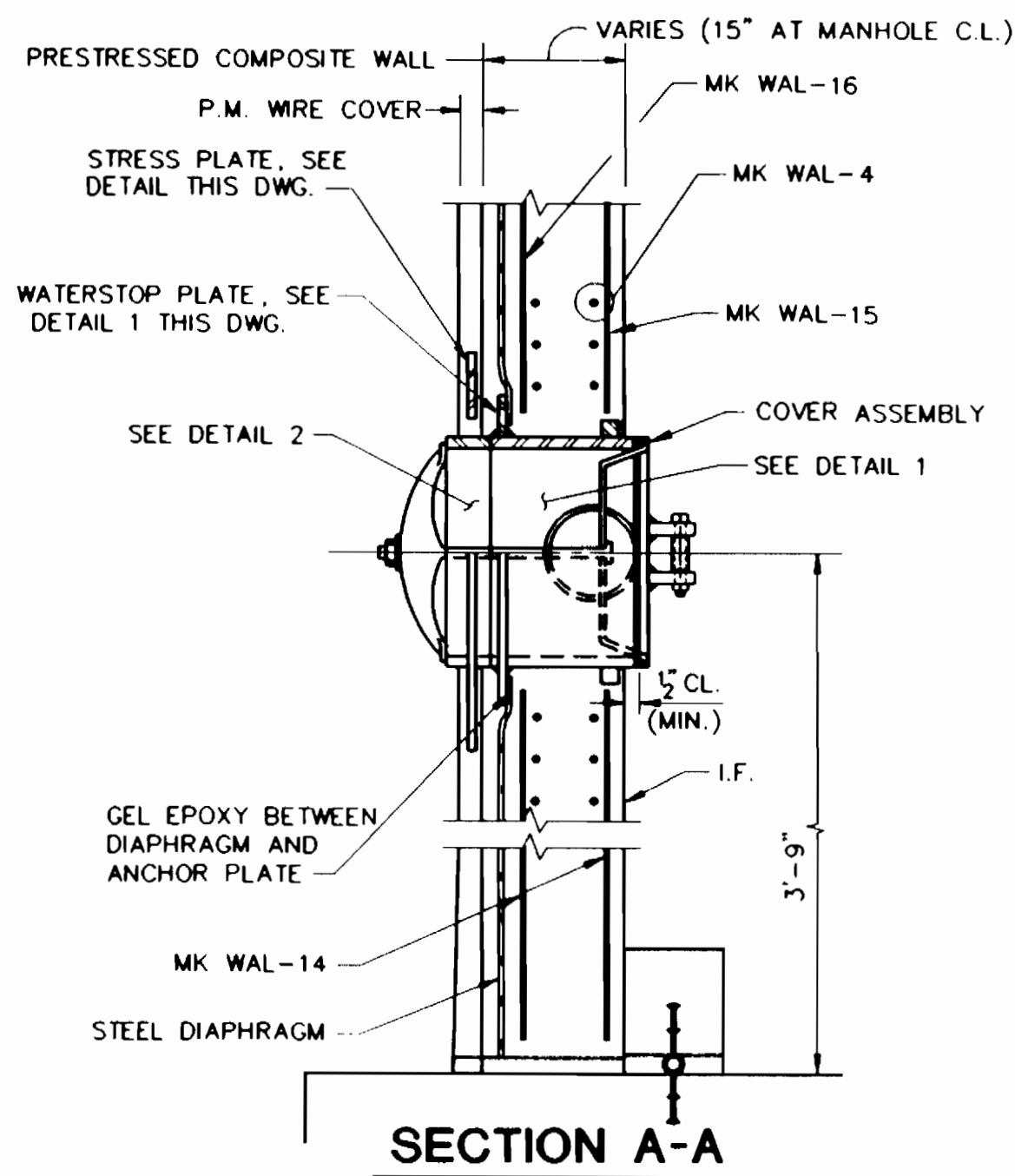
HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051
WORKING DRAWING

PRELOAD			
839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530			
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NO.	DATE	DESCRIPTION	BY CKD
1	10/2/91	AS NOTED	JD RAO
2	6/11/93	AS BUILT	PV RAO

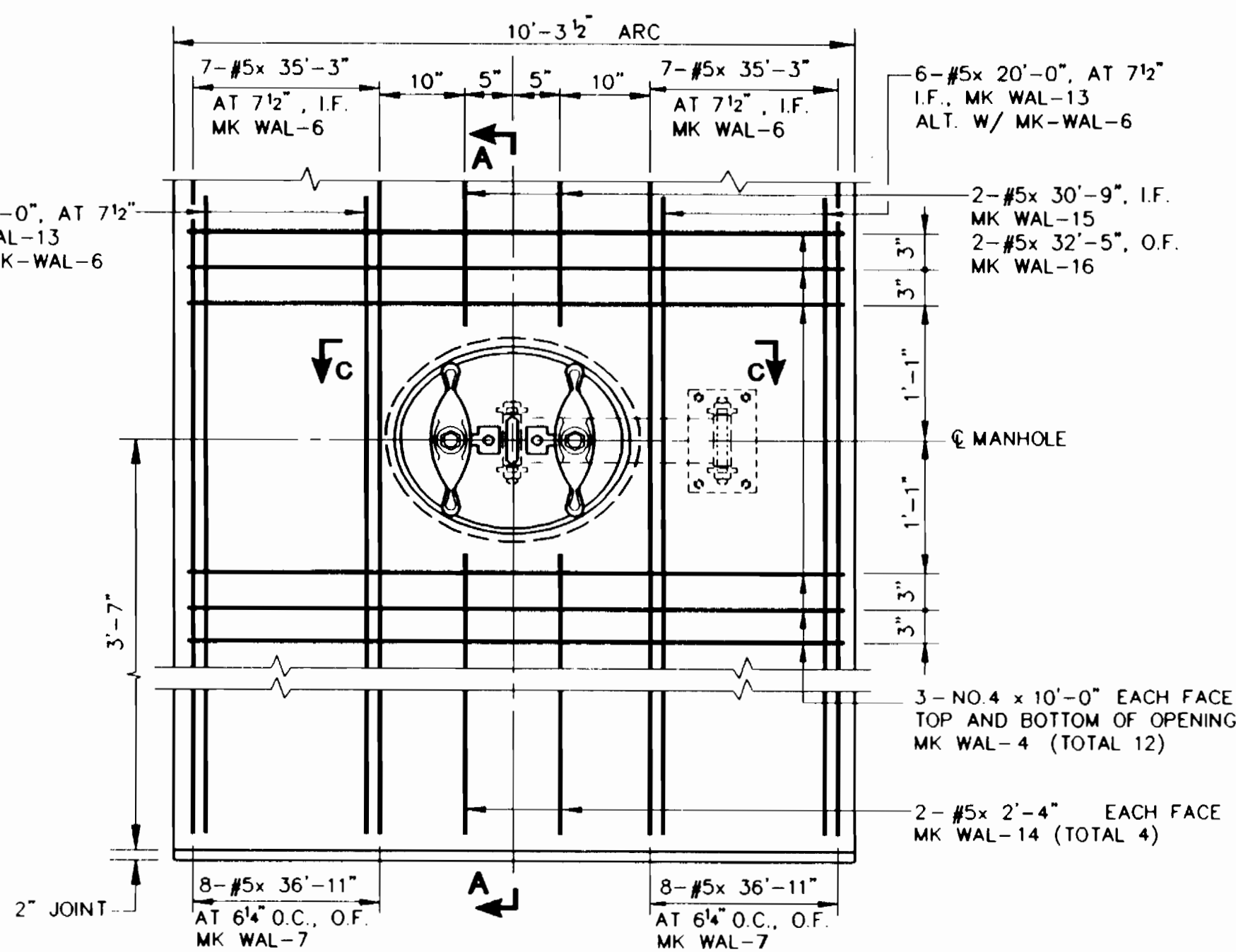
DRAWN:	JD	SCALE:	NTS	CONTRACT NUMBER:	91 PD 005
DESIGNED:	RAO	DATE:	5-20-91	DWG. NUMBER:	88903-11
CHECKED:	TM				

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" (REV'D 1/90)

3385 w/11

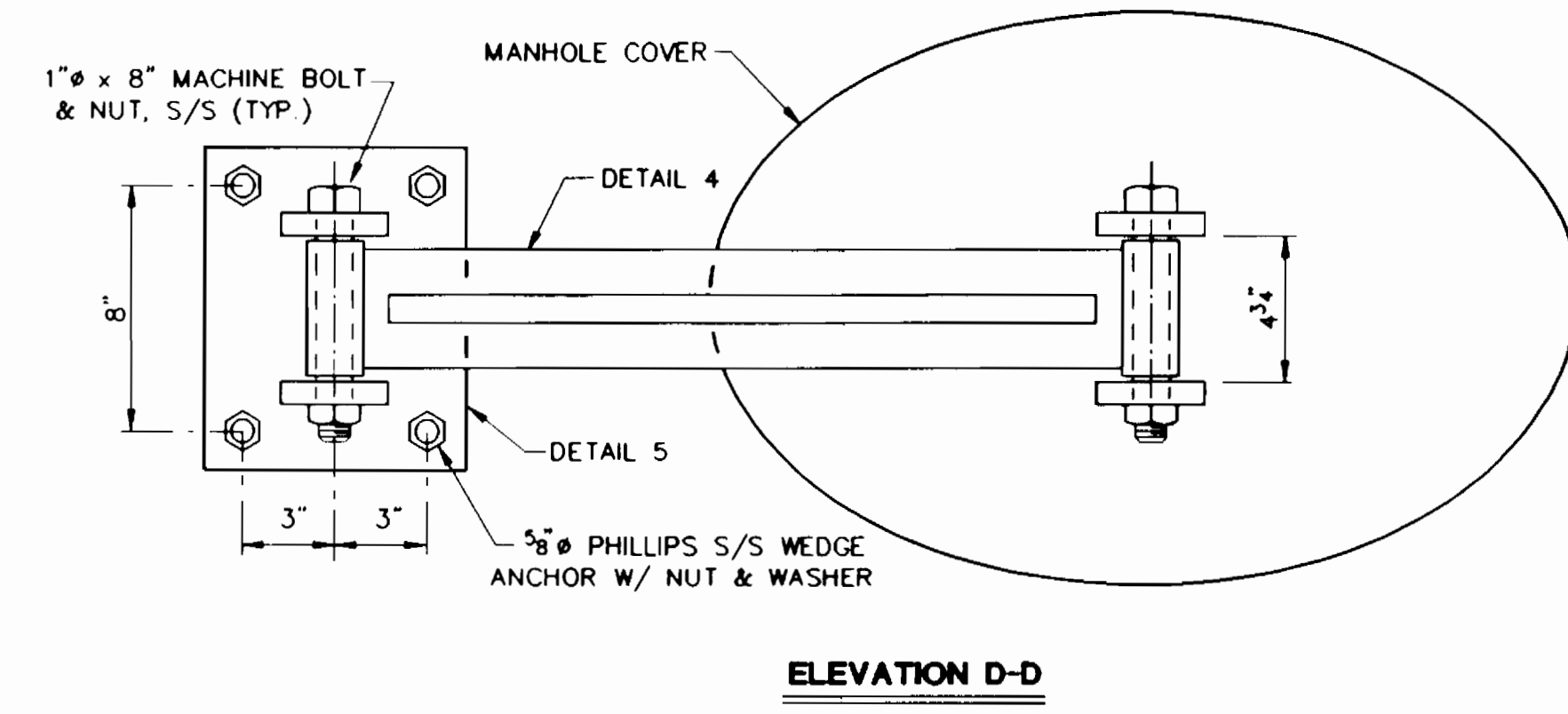
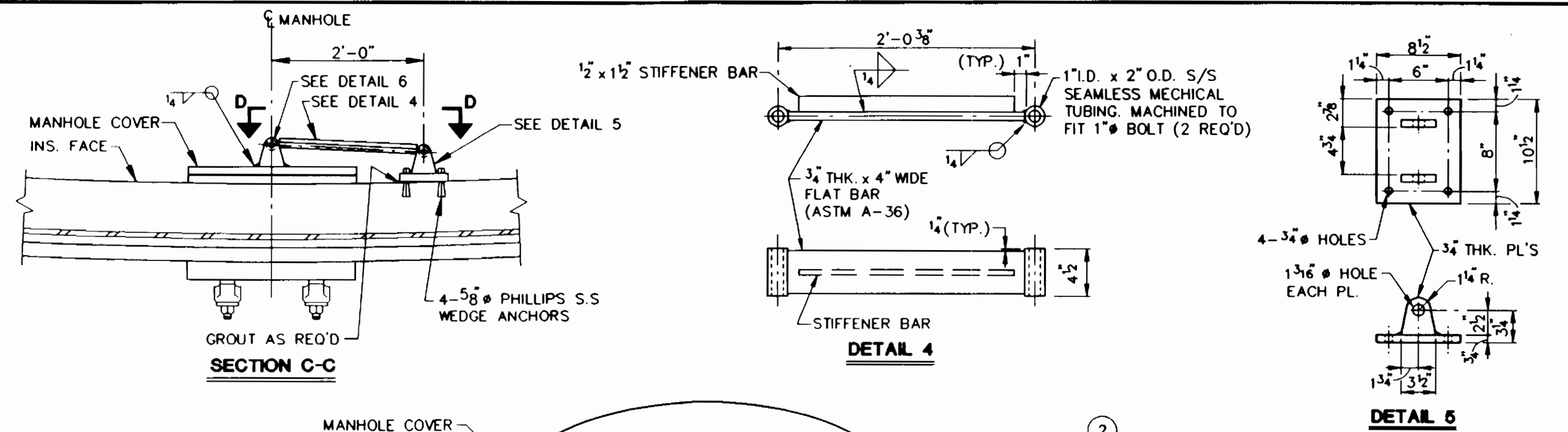


NOTE: MANHOLE ASSEMBLY TO BE COATED WITH TWO COATS OF KOPPERS BITUMASTIC SUPERTANK SOLUTION OR EQUAL.

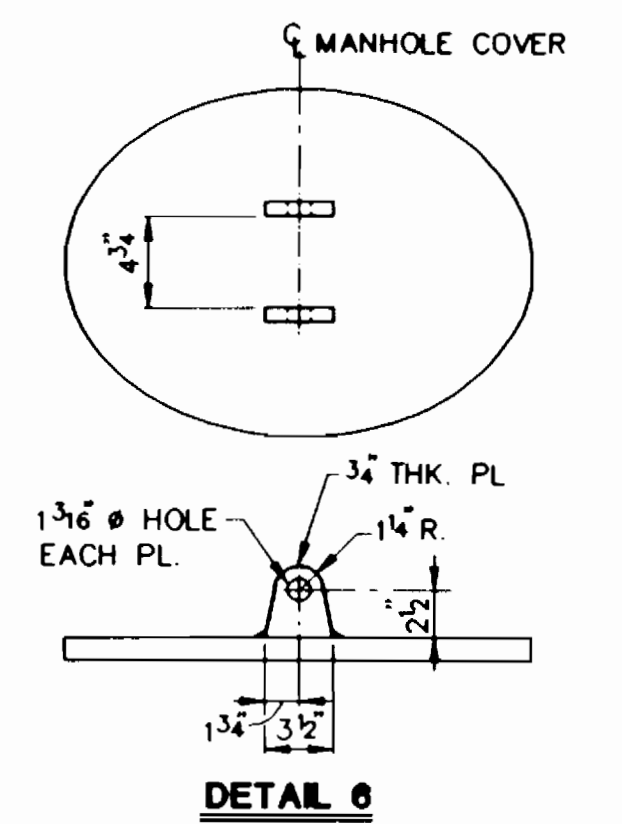


PERMANENT MANHOLE PANEL (2 REQ'D)

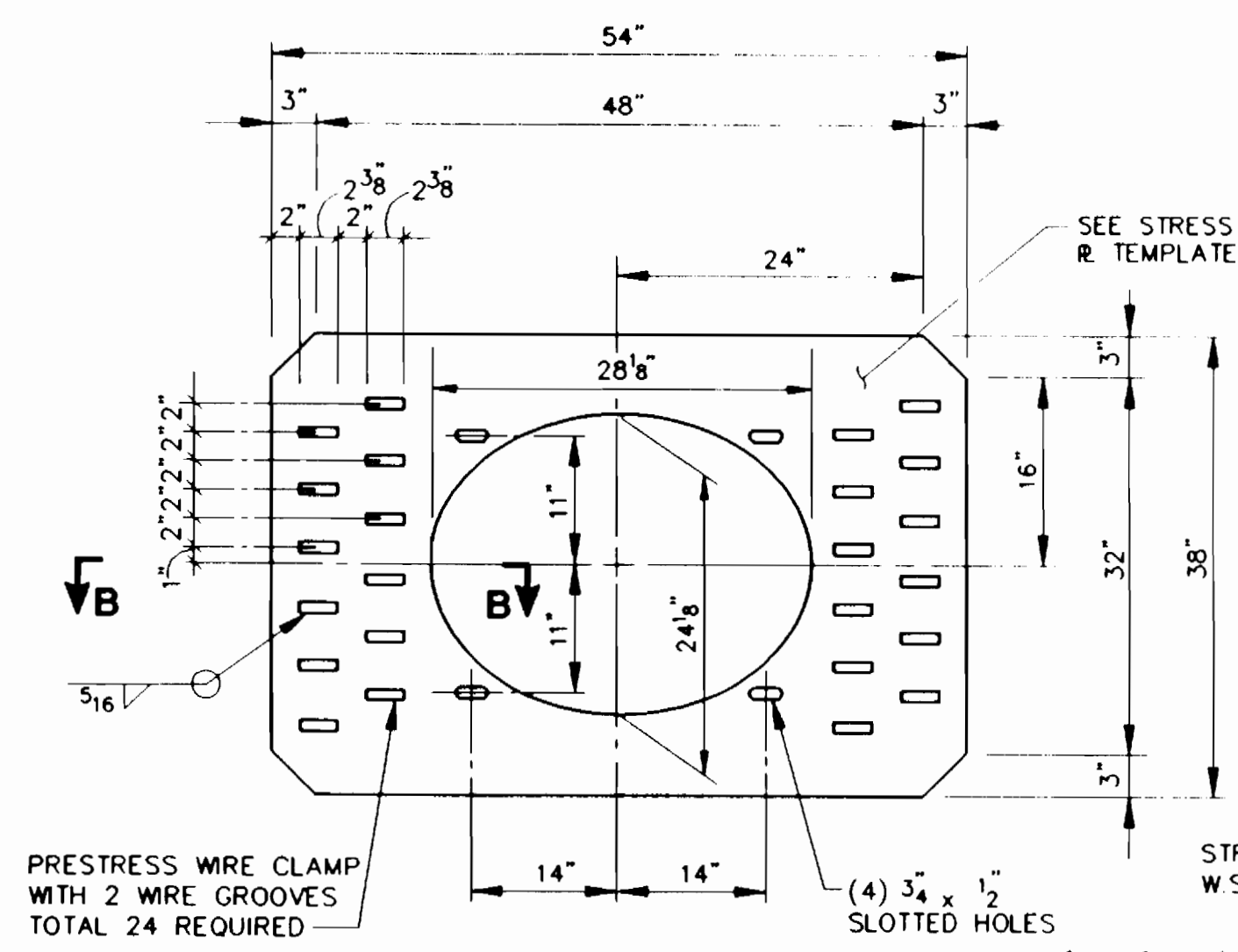
NOTE: MK WAL-1, WAL-2, WAL-3, WAL-4 & WAL-5 AT LIFTING INSERTS NOT SHOWN. SEE DWG. NO. 5



ELEVATION D-D

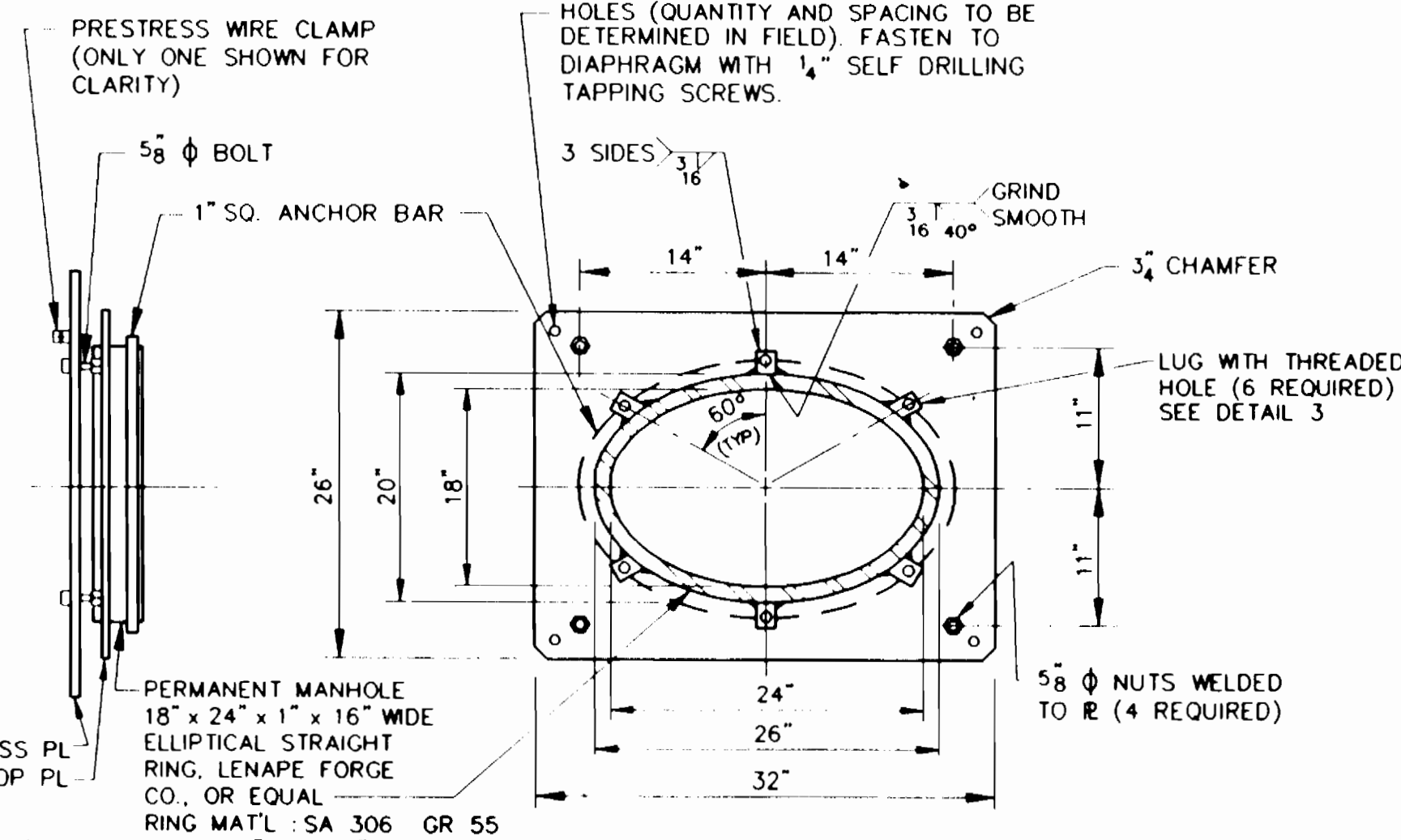


DETAIL 6



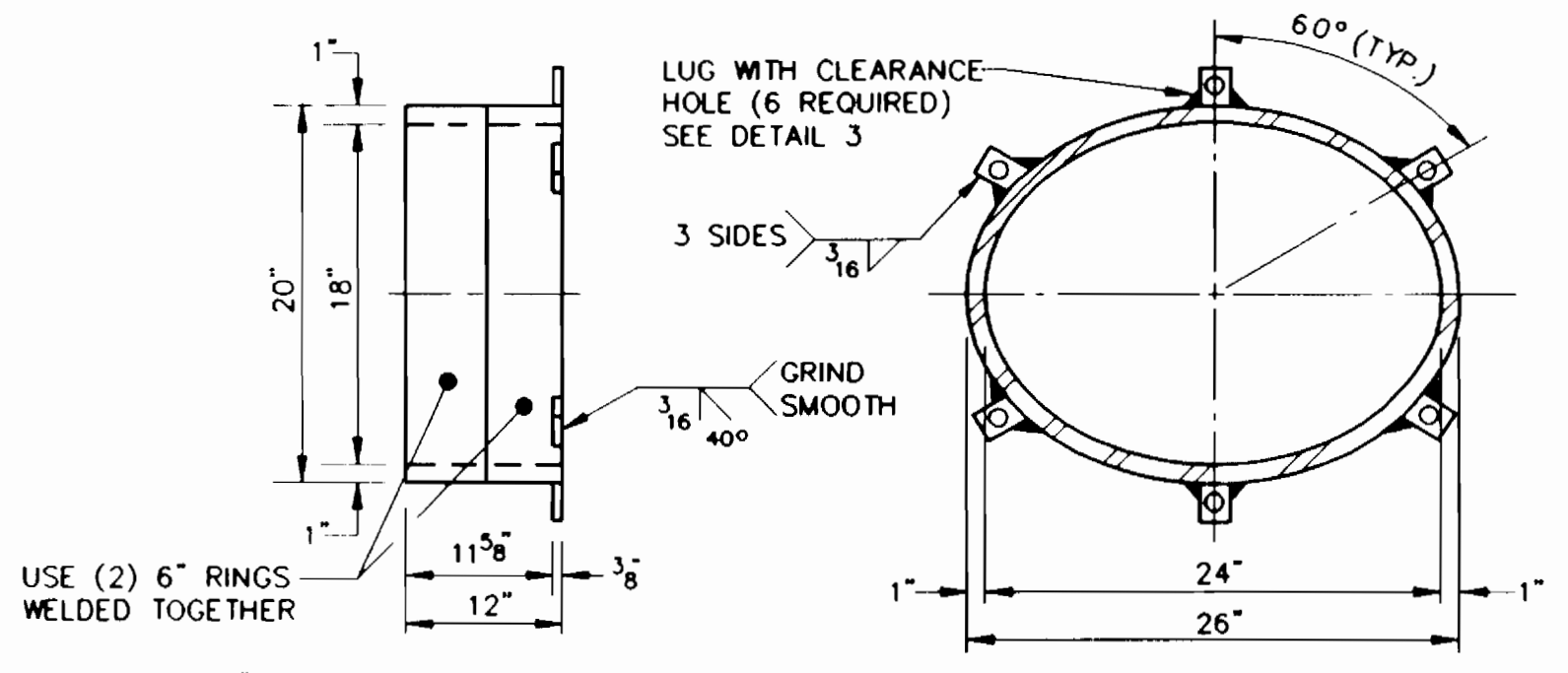
STRESS PLATE DETAIL

MATERIAL: 5/8 THK. ASTM A-36 STEEL



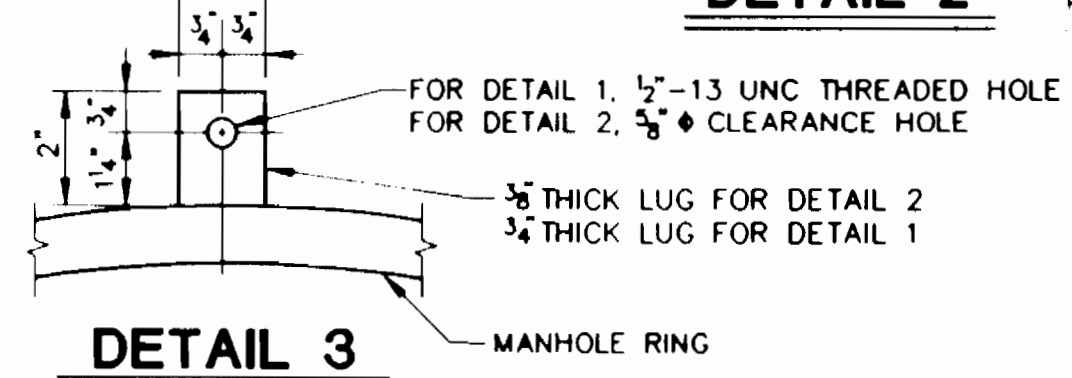
DETAIL 1 (WATERSTOP PLATE)

MATERIAL: 3/8 THK. ASTM A-36 STEEL WITH 20'8" x 26'8" HOLE



DETAIL 2

MATL: SA 306 GR 55



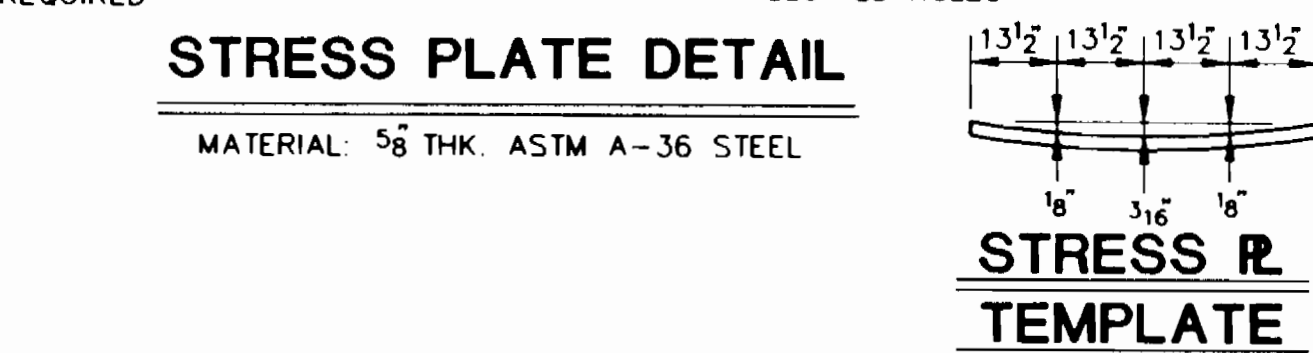
DETAIL 3

INSTALLATION OF MANHOLE PANEL OPENING

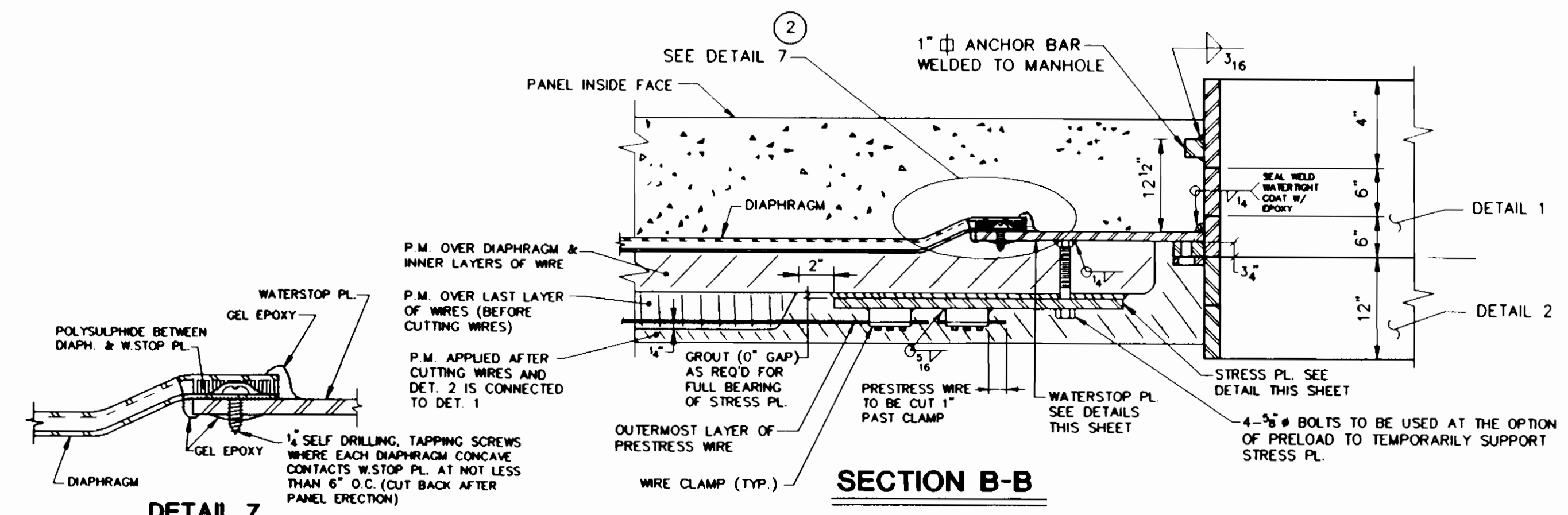
- CLEAN ALL INSIDE SURFACES FREE OF DIRT, SLAG, OIL OR OTHER FOREIGN SUBSTANCES TO FACILITATE GOOD BOND SURFACES.
- PLACE OPENING AT PROPER LOCATION IN PANEL BED.
- LOCATE AND PLACE DIAPHRAGM IN PANEL BED WITH OPENING REMOVED AS REQUIRED. FASTEN TO WATERSTOP PLATE WITH SELF TAPPING SCREWS. THEN REMOVE SCREWS.
- LIFT DIAPHRAGM AND CAULK BETWEEN OUTER SURFACE OF DIAPHRAGM AND INNER SURFACE OF WATERSTOP PLATE WITH 2 COMPONENT POLYSULFIDE. IMMEDIATELY RE-INSERT SELF TAPPING SCREWS TO FACILITATE PERMANENT SEAL. ALLOW POLYSULFIDE TO SET, THEN TRIM EXCESS AT END OF DIAPHRAGM.
- APPLY GEL EPOXY TO END OF DIAPHRAGM, OVER SELF TAPPING SCREW HEADS AND OVER ALL WATERSTOP WELDS AS SHOWN. LET EPOXY HARDEN BEFORE PROCEEDING WITH NEXT STEP IN PANEL FABRICATION.
- CAST AND ERECT PANEL.
- UPON ERECTION OF WALL PANEL, IMMEDIATELY TRIM POLYSULFIDE AT END OF DIAPHRAGM AROUND OPENING. CUT BACK SELF TAPPING SCREWS FLUSH WITH W.S. PLATE AND CLEAN OFF OUTER SURFACES FREE OF ALL FOREIGN MATERIALS. THEN CAULK WITH GEL EPOXY AS SHOWN. SHOTCRETE AFTER EPOXY HAS HARDENED.

MANHOLE PRESTRESSING PROCEDURE

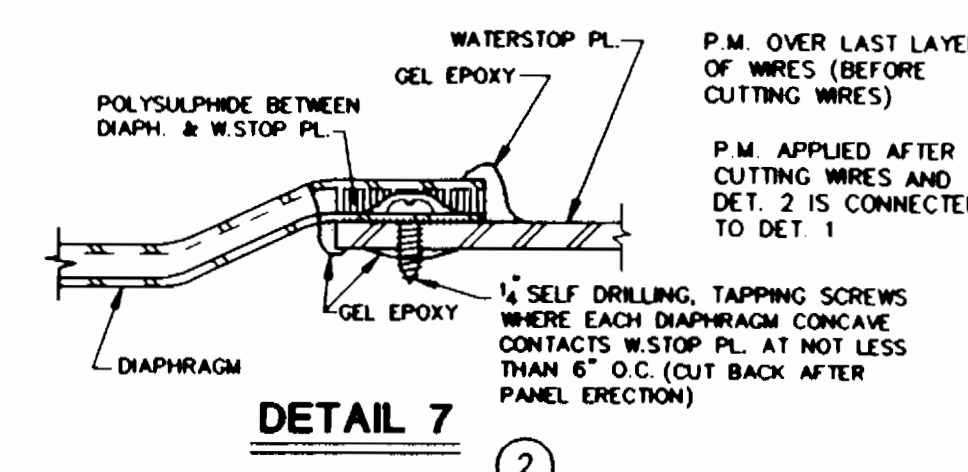
- WELD BOTTOM HALF OF CLAMPS TO STRESS PLATE USING E 70XX ELECTRODES. ALL WELDING SHALL BE IN ACCORDANCE WITH ANSI/AWS D-1-1-88.
- WRAP WIRES OVER MANHOLE MAKING SURE WIRES DROP INTO THREADED SLOTS OF CLAMPS.
- INSTALL TOP HALF OF CLAMPS AND TIGHTEN WITH BOLTS. (TORQUE = 75 FT. LBS.)
- CUT WIRES 1" FROM EDGE OF CLAMPS AS SHOWN.
- WIRES TO BE CUT STARTING AT CENTER LINE OF OPENING ALTERNATING WIRES ABOVE AND BELOW OPENING (MAXIMUM UNBALANCED LOAD = 2 WIRES.)
- APPLY PNEUMATIC MORTAR TO COVER WIRES & ANCHORAGES AFTER OUTER PART (DETAIL 2) OF PERMANENT MANHOLE IS ATTACHED TO DETAIL 1.



STRESS PLATE TEMPLATE



SECTION B-B



DETAIL 7

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REVISIONS				PRELOAD		ONE 20.0 M.G. WATER STORAGE TANK	
NO.	DATE	DESCRIPTION	BY	CKD	CATONVILLE, MARYLAND		
1	7-22-91	WATERSTOP PL. THICKNESS	JD	RAO	DWG NO. 90-1983L		
2	9/12/91	DETAILS 4, 5 & 6. SECT B-B	JD	RAO	PERMANENT HINGED MANHOLE DETAILS		
4	6/11/93	AS BUILT	PV	RAO	DESIGNED: RAO	SCALE: N.T.S.	CONTRACT NUMBER: 91 PD 005
					CHECKED: TM	DATE: 5-20-91	DRAWING NUMBER: 88903-12

3385 W/12

H.O. CO. CONT NO. 44-3385
H.O. CO. C.P. NO. W-8051

WORKING DRAWING

839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

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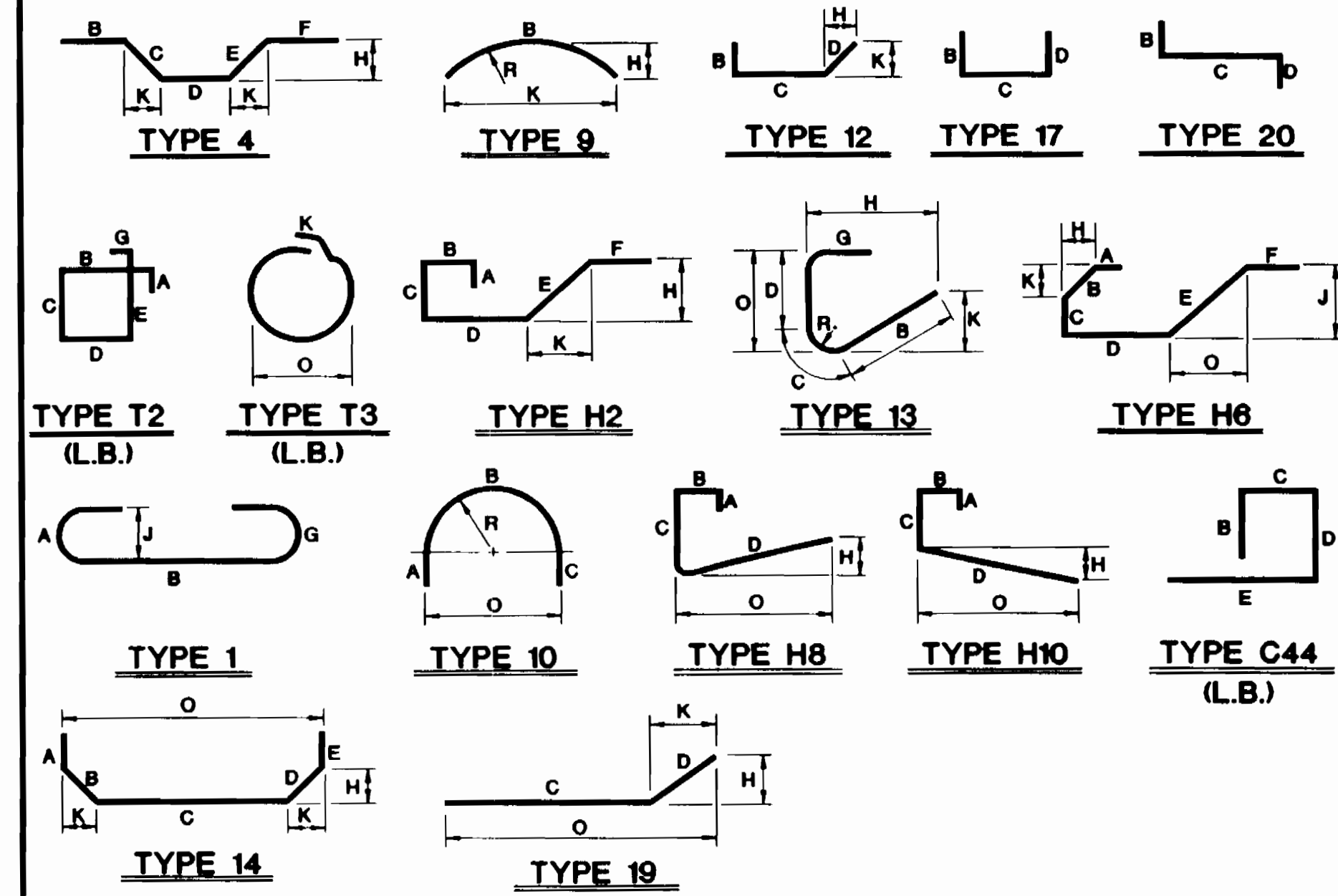
FLOOR AND FOOTING

WALL

BAR BENDING SCHEDULE

MARK	QUANTITIES		SIZE/LENGTH		WEIGHT (LBS)			TYPE	LOCATION
	DESN	QDRDR	#	FT-IN	NO. 5	NO. 4	NO. 3		
IFTG-1	778	802	5	130 - 0	25095	0	0		FOOTING
IFTG-2	69	72	4	130 - 0	0	1443	0		FOOTING
IFTG-3	1173	1197	4	12 - 6	0	1999	0		FOOTING
IFLR-1	12588	12640	4	130 - 0	0	52906	0		EACH WAY
IFLR-2	56	58	4	130 - 0	0	1162	0		CIRCUMF
IFLR-3	11299	11325	4	140 - 0	0	35404	0		IRADIAL
IFLR-4	11539	11570	4	130 - 0	0	31463	0		CIRCUMF
IFLR-5	119	122	4	130 - 0	0	2445	0		ADD. CIR
IFLR-6	11616	11649	4	130 - 0	0	33046	0		IRADIAL
IFLR-7	11380	11408	4	130 - 0	0	28216	0		CIRCUMF
IFLR-8	92	94	4	130 - 0	0	1884	0		ADD. CIR
IFLR-9	36	38	4	16 - 0	0	152	0		DRAINS
IFLR-10	24	26	4	18 - 2	0	142	0		INF&D FL
IFLR-11	12	13	4	19 - 0	0	78	0		EFFLUENT
IFLR-12	68	70	4	130 - 0	0	1403	0		SUPT. BR
EXTRA	17	5	130 - 0	0	532	0	0		
EXTRA	96	4	130 - 0	0	0	1924	0		
EXTRA					0	0	0		
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	25627	193667	0		
H	600	669	6	116 - 11	0	0	17685	H2	FOOTING
H	601	669	6	116 - 5	0	0	16496	H2	FOOTING
B	402	1173	1197	4	14 - 0	0	3198	20	FOOTING
E	427	100	103	4	13 - 2	0	218	17	PIPES
N									
D									
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	3416	34181		
L									
B									
E									
N									
D									
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	0	0		

MARK	QUANTITIES		SIZE/LENGTH		WEIGHT (LBS)			TYPE	LOCATION
	DESN	QDRDR	#	FT-IN	NO. 5	NO. 4	NO. 3		
IWAL-1	1440	1456	3	16 - 0	0	0	3285		IL. INSRISI
IWAL-2	11980	12002	5	16 - 0	12529	0	0		13SH. BRCCI
IWAL-3	90	92	4	136 - 10	0	2264	0		IWAL2SUPTI
IWAL-4	744	752	4	110 - 0	0	5023	0		13SH. I.F.I
IWAL-5	540	546	3	110 - 0	0	0	2053		13SH. D.F.
IWAL-6	11260	11276	5	135 - 3	46913	0	0		I.F. VER
IWAL-7	11440	11458	5	136 - 11	56139	0	0		I.F. VER
IWAL-8	NOT USED								
IWAL-9	NOT USED								
IWAL-10	NOT USED								
IWAL-11	NOT USED								
IWAL-12	NOT USED								
IWAL-13	1168	1181	5	120 - 0	24636	0	0		I.F. ADD. I
IWAL-14	8	8	5	12 - 4	19	0	0		IM. H. PNLSI
IWAL-15	4	4	5	130 - 9	128	0	0		IM. H. PNLSI
IWAL-16	4	4	5	132 - 5	135	0	0		IM. H. PNLSI
EXTRA	20	5	130 - 0	0	626	0	0		
EXTRA	2	4	130 - 0	0	0	40	0		
EXTRA	4	3	130 - 0	0	0	0	45		
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	14125	7327	5383		
H									
B									
E									
N									
D									
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	0	0		
L									
B									
E									
N									
D									
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	0	0		



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MARK	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
301	#3	4'-6"	17	-	4"	3'-10"	4"	-							
402	#4	4'-0"	20	1'-6"	1'-1 1/4"	1'-4 1/4"									
426	#4	10'-1"	17	3'-0"	4'-1"	3'-0"									
427	#4	3'-2"	17	-	2'-0"	1'-2"									
501	#5	5'-0"	17	-	1'-0"	4'-0"									
600	#6	16'-11"	H2	1'-0"	3'-6"	1'-4"	5'-2 1/2"	2'-10 1/2"	3'-0"	1'-4 1/4"			2'-6 1/2"		
601	#6	16'-5"	H2	1'-0"	3'-6"	1'-4"	5'-2 1/2"	2'-10 1/2"	2'-6"	1'-4 1/4"			2'-6 1/2"		

MISCELLANEOUS

CURB

MARK	QUANTITIES		SIZE/LENGTH		WEIGHT (LBS)			TYPE	LOCATION	
	DESN	QDRDR	#	FT-IN	NO. 5	NO. 4	NO. 3			
SMSC-1	8	9	5	132 - 7	306	0	0		I.D.F. ENC	
SMSC-2	150	155	4	133 - 10	0	3503	0		IPILSTPS	
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	306	3503	0			
H	501	8	9	5	15 - 0	47	0	0	17	I.D.F. ENC
B	426	66	69	4	110 - 1	0	465	0	17	I.D.F. ENC
E										
N										
D										
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	0	2656		17	IPILSTPS
L	301	1560	1570	3	14 - 6	0	0	2656	17	IPILSTPS
B										
E										
N										
D										
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	0	2656			

MARK	QUANTITIES		SIZE/LENGTH		WEIGHT (LBS)			TYPE	LOCATION
	DESN	QDRDR	#	FT-IN	NO. 5	NO. 4	NO. 3		
SMSC-1	137	140	4	130 - 0	0	2806	0		
TOTAL	XXXXX	XXXXX	XXXX	XXX-XXX	0	2806	0		

TOTAL BAR WEIGHT

LAP LENGTHS

UNIT WEIGHT OF REBARS

LOCATION	NO. 6				NO. 5				NO. 4				NO. 3				TOTAL
	STR.	H. BD.	L. BD.	TOTAL	STR.	H. BD.	L. BD.	TOTAL	STR.	H. BD.	L. BD.	TOTAL	STR.	H. BD.	L. BD.	TOTAL	
IF STR.	0	0	0	0	25627	0	0	25627	0	0	0	0	0	0	0	0	25627
IF H. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IF L. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW STR.	0	0	0	0	141125	0	0	141125	7327	0	0	7327	0	0	0	0	153835
IW H. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IW L. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CURB	0	0	0	0	0	2806	0	2806	0	0	0	0	0	0	0	0	2806
ID STR.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ID H. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ID L. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D. SHELL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IM STR.	0	0	0	0	306	3503	0	3809	0	0	0	0	0	0	0	0	3809
IM H. BEND	0	0	0	0	47	465	0	512	0	0	0	0	0	0	0	0	512
IM L. BEND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IC L. BEND	0	0	0	0	0	0	2656	2656	0	0	0	0	0	0	0	0	6977
TOTAL	34181	167105	211184	8039	379744	38109	2656	420509									

SIZE	ALL BARS EXCEPT AS NOTED ON DWG NO 3	SIZE	WEIGHT
3	1'-1"	3	.376
4	1'-5"	4	.668
5	1'-9"	5	1.043
6	2'-1"	6	1.502
7	2'-5"	7	2.044
8	2'-9"	8	2.670

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD
1	6/19/91	AS INDICATED	PV	RAO
2	9/12/91	AS INDICATED	PV	RAO
3	6/11/93	AS BUILT	PV	RAO

BENDING NOTE: HOLD BENDING TOLERANCE TO +0", -1/2" FOR DIMENSIONS SHOWN THUS (+)

NOTES:

- REBARS ARE TO BE NEW BILLET STEEL, ASTM A-615, GRADE 60
- MINIMUM LAP TO BE AS PER LAP LENGTH TABLE
- WELDED WIRE FABRIC TO BE ASTM A-185-LAPS 1 1/2 SOS.
- DESIGN QUANTITY IS THE NO. OF BARS PLACED IN THE STRUCTURE. ORDER QUANTITY REPRESENTS NO. OF BARS TO BE PURCHASED
- FOR DOME REBARS SEE DWG # 14

HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051

WORKING DRAWING



DOME FILLET

DOME FILLET (50° VENT)										
MARK	QUANTITIES		SIZE		LENGTH		WEIGHT (LBS)		TYPE	LOCATION
	DESN	QDR	#	FT-IN	NO. 5	NO. 4	NO. 3			
DDM-1	982	11002	4	136 - 0	0	24096	0			IB PAD
DDM-2	250	256	5	130 - 0	1	8010	0			IB CIR TH
DDM-3	960	980	4	130 - 0	1	19689	0			IB CIR FLT
DDM-4	1042	1063	4	136 - 0	1	21403	0			IT CIR FLT
DDM-5	1178	1192	4	138 - 0	1	30912	0			IT PAD
DDM-6	181	185	5	130 - 0	1	5789	0			ICIR 403
S DDM-7	108	110	5	130 - 0	1	3442	0			IT CIR TH
T DDM-8	35	36	4	130 - 0	1	721	0			ICIR WALL
R DDM-9	35	36	4	130 - 0	1	721	0			ICIR END
A DDM-10	12	13	4	16 - 0	1	52	0			HTCH&INS
I DDM-11	943	962	4	14 - 0	1	2570	0			LAP BARS
G DDM-12	780	796	4	14 - 0	1	2127	0			LAP BARS
H DDM-13	1178	1202	4	14 - 0	1	3212	0			ID HANG
T DDM-14	68	70	4	130 - 0	1	1403	0			SUPT BPS
EXTRA	4		5	130 - 0	1	125	0			
EXTRA	28		4	130 - 0	1	561	0			
EXTRA	1		3	130 - 0	1	0	0			
TOTAL	XXXXXX	XXXXXX	XXXXXX	XXXX-XXX	XXXX	17366	106917	0		
H	403	1178	1202	4	17 - 1	0	5687	0		THICKEN'G
H	405	100	102	4	13 - 6	1	238	0		VENT
H	410	4	4	4	19 - 3	1	25	0		HATCH
H	411	4	4	4	10 - 7	1	28	0		HATCH
H	412	16	17	4	4 - 2	1	47	0		HATCH
H	413	1178	1202	4	17 - 9	1	6223	0		THICKEN'G
D							0	0		
TOTAL	XXXXXX	XXXXXX	XXXXXX	XXXX-XXX	XXXX	0	12248	0		
L	404	10	11	4	17 - 6	1	129	0		T3 VENT
L	406	5	5	4	25 - 1	1	84	0		T3 VENT
L	407	10	11	4	16 - 6	1	121	0		T3 VENT
E	408	100	102	4	15 - 0	1	341	0		C44 VENT
N	409	10	11	4	15 - 8	1	115	0		T3 VENT
D							0	0		
TOTAL	XXXXXX	XXXXXX	XXXXXX	XXXX-XXX	XXXX	0	790	0		

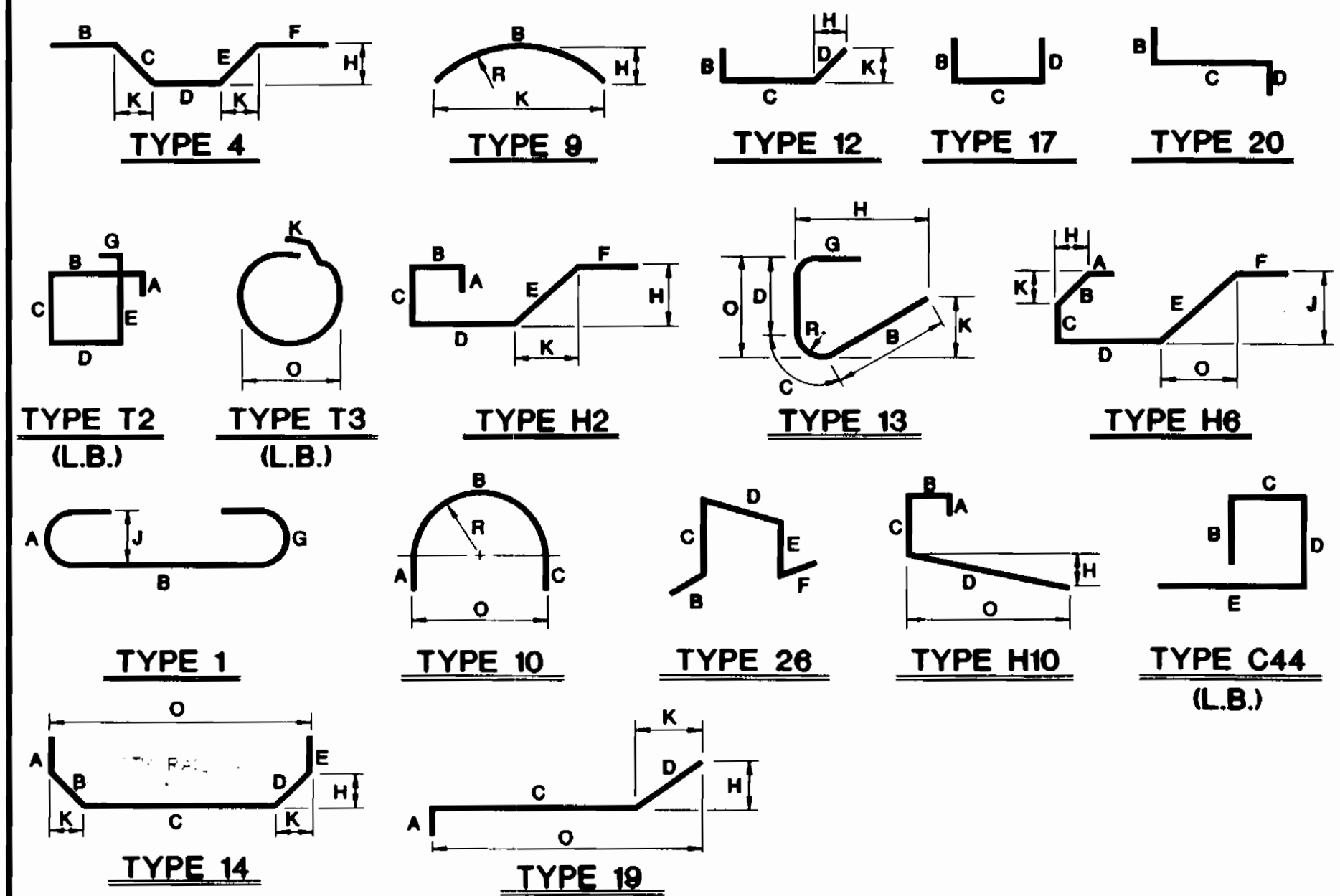
DOME SHELL

DOME SHELL										
MARK	QUANTITIES		SIZE		LENGTH		WEIGHT (LBS)		TYPE	LOCATION
	DESN	QDR	#	FT-IN	NO. 5	NO. 4	NO. 3			
S	SHL-15	3489	13520	4	130 - 0	0	70541	0		
T	SHL-16	3600	13632	4	130 - 0	0	72785	0		
R										
TOTAL	XXXXXX	XXXXXX	XXXXXX	XXXX-XXX	XXXX	0	143326	0		

TOTAL BAR WEIGHT

TOTAL BAR WEIGHT									
LOCATION	IND	NO			TOTAL TYPE OF BARS	TOTAL			
		NO. 5	NO. 4	NO. 3					
IF	STR.	0	0	0	0	0			
IL	H. BEND	0	0	0	0	0			
IR	L. BEND	0	0	0	0	0			
IV	STR.	0	0	0	0	0			
IA	H. BEND	0	0	0	0	0			
IL	L. BEND	0	0	0	0	0			
	CURB	0	0	0	0	0			
ID	STR.	17366	106917	0	124283				
ID	H. BEND	0	12248	0	12248	790			
IM	L. BEND	0	790	0	790	137321			
	D. SHELL	143326	0	143326	143326				
IS	STR.	0	0	0	0	0			
IP	H. BEND	0	0	0	0	0			
IT	L. BEND	0	0	0	0	0			
TOTAL		0	17366	263281	0	267609	12248	790	280647

BAR BENDING SCHEDULE



THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" (REV'D 1/90)

MARK	SIZE	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
403	#4	7'-1"	13		3'-11"	*4"	1'-9 1/2"			1'-0 1/2"	3'-9"		1'-10 1/4"	1 1/2"	1'-11 1/2"
404	#4	17'-6"	T3										1'-3 1/4"		5'-2"
405	#4	3'-6"	1	6"	3'-0"							4"			
406	#4	25'-1"	T3										1'-3"		7'-7"
407	#4	16'-6"	10	7 1/4"	15'-3 1/4"	7 1/2"								4'-10 1/2"	9'-9"
408	#4	5'-3"	C44		8 1/2"	*5"	9 1/2"	3'-4"							
409	#4	15'-8"	T3										1'-3 1/2"		4'-7"
410	#4	9'-3"	17		1'-3"	4'-0"	4'-0"								
411	#4	10'-7"	17		1'-3"	4'-8"	4'-8"								
412	#4	4'-2"	17		9"	10"	2'-7"								
413	#4	7'-9"	19	4"	6'-0"	1'-5"					7"		1'-3 1/2"		7'-3 1/2"

- BENDING NOTE:** HOLD BENDING TOLERANCE TO +0", -1/2" FOR DIMENSIONS SHOWN THUS (+)
- NOTES:**
- REBARS ARE TO BE NEW BILLET STEEL, ASTM A-615, GRADE 60.
 - MINIMUM LAP TO BE AS PER LAP LENGTH TABLE AND DWG NO. 9
 - DESIGN QUANTITY IS THE NO. OF BARS PLACED IN THE STRUCTURE. ORDER QUANTITY REPRESENTS NO. OF BARS TO BE PURCHASED.
 - ALL REBARS SHALL BE EPOXY COATED
 - FOR FLOOR & WALL REBARS SEE DWG NO. 13

HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051
WORKING DRAWING

PRELOAD
839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

**ONE 20.0 M.G. WATER STORAGE TANK
CATONVILLE, MD
DWG NO. 90-1983N
DOME REBAR SCHEDULE**

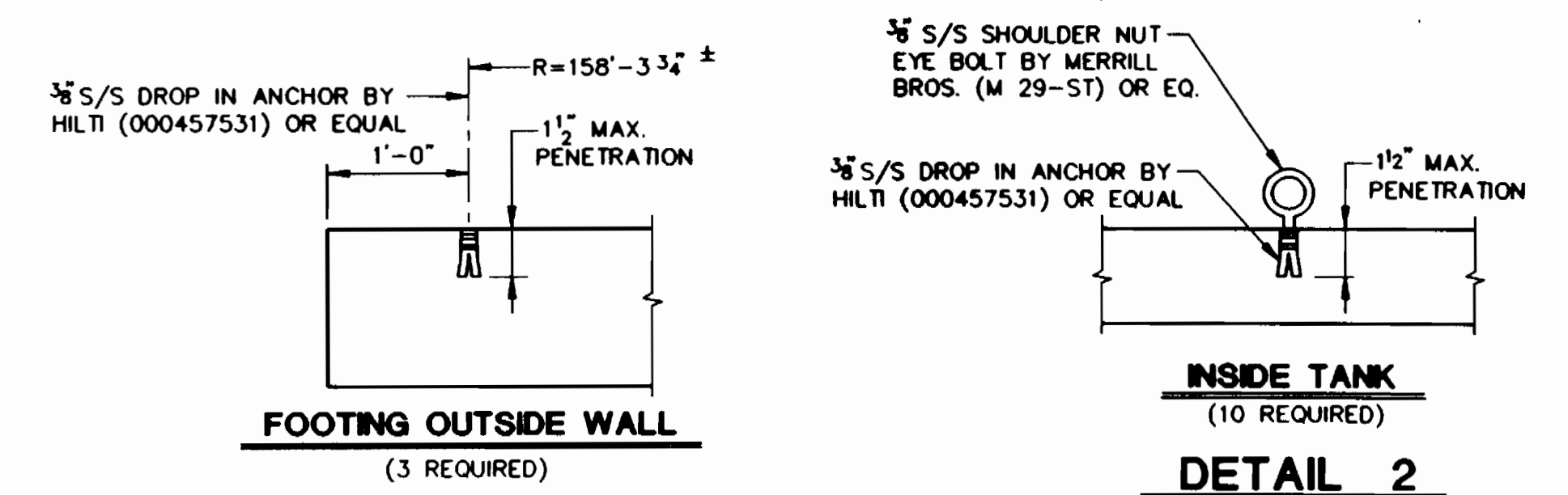
DRAWN: DDD	SCALE: NONE	CONTRACT NUMBER: 91 PD 005
DESIGNED: RAO		DRAWING NO.
CHECKED: T.M.	DATE: 05/20/91	NUMBER: 88903-14

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LAP LENGTHS				UNIT WEIGHT OF REBARS	
SIZE	ALL BARS EXCEPT AS NOTED ON DWG-9			SIZE	WEIGHT
3	1'-6"			3	.376
4	1'-8"			4	.668
5	2'-0"			5	1.043
6	2'-5"			6	1.502
				7	2.044
				8	2.670

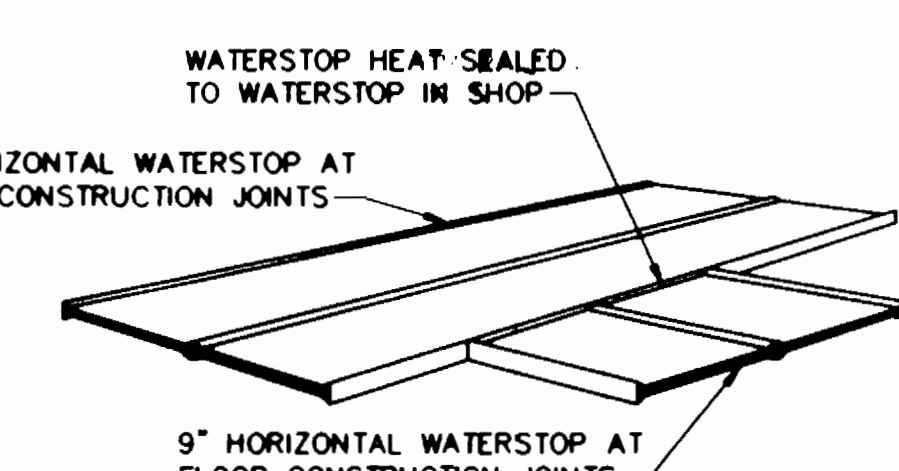
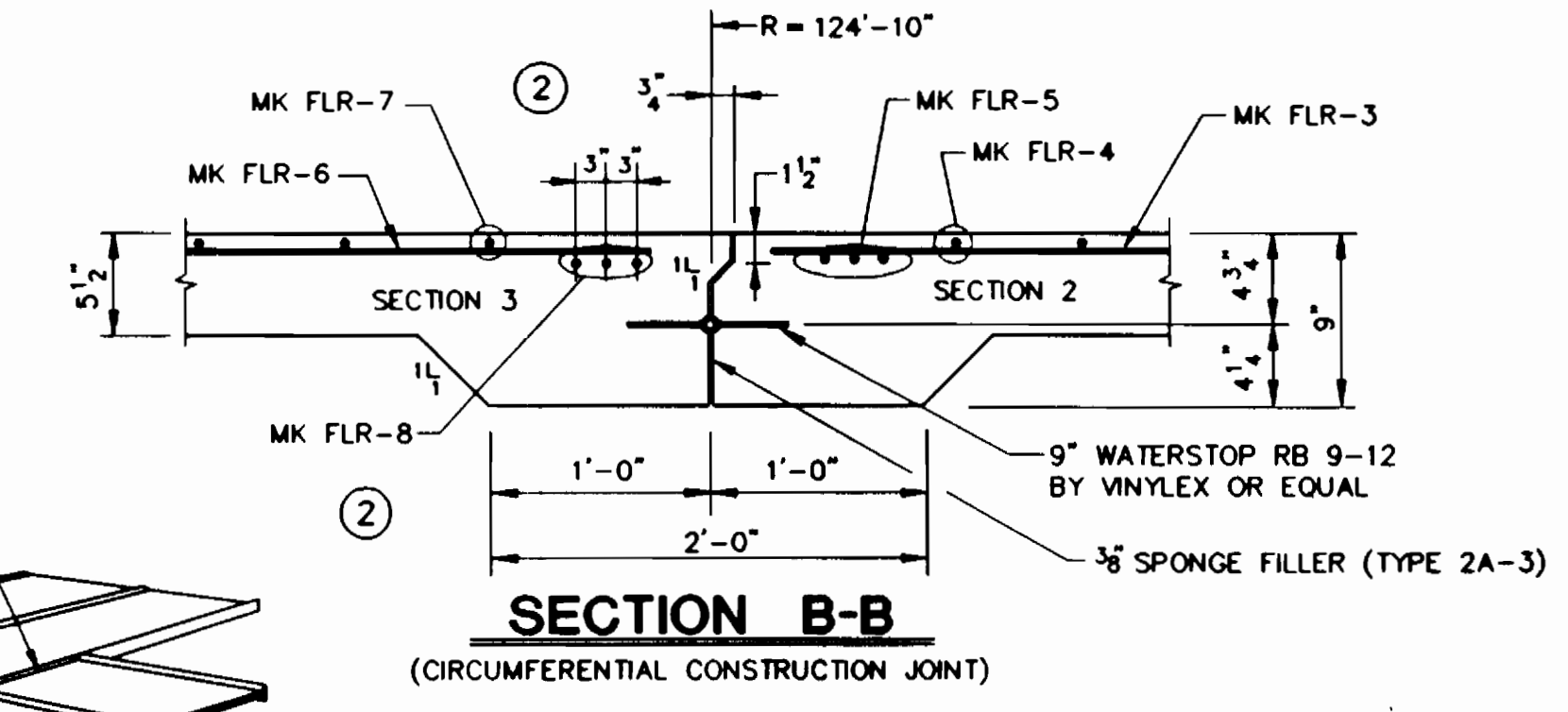
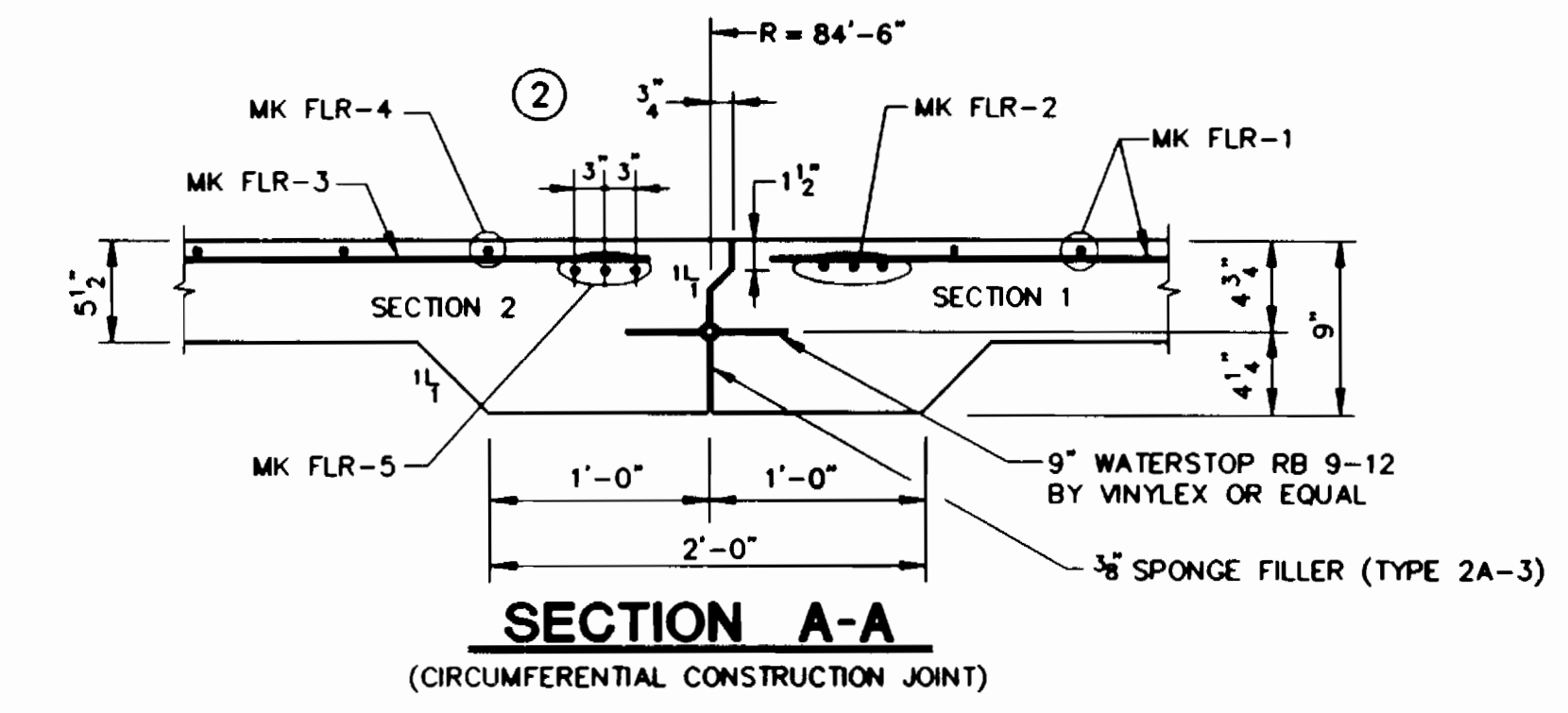
REVISIONS				
NO.	DATE	DESCRIPTION	BY	CKD
1	7/22/91	PER ENGINEERS COMMENTS	PV	RAO
2	6/11/93	AS BUILT	PV	RAO

3385 w/14

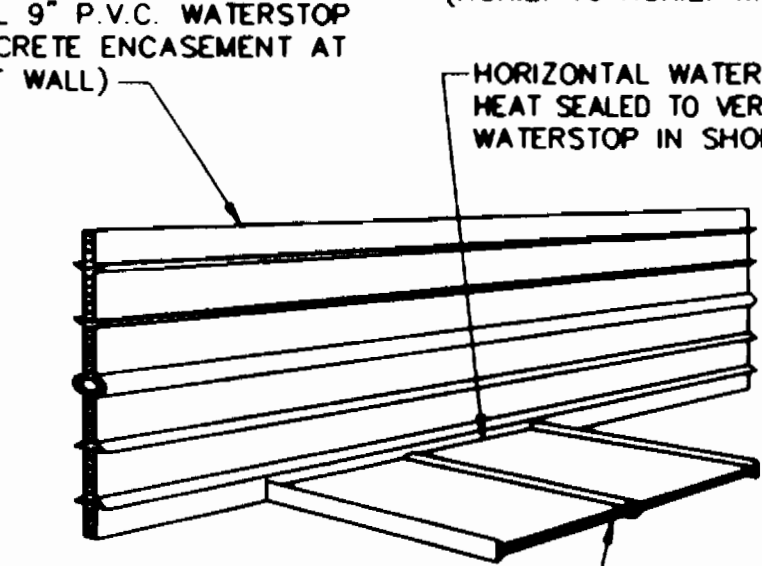


DETAIL 1 **FLOOR INSERTS**

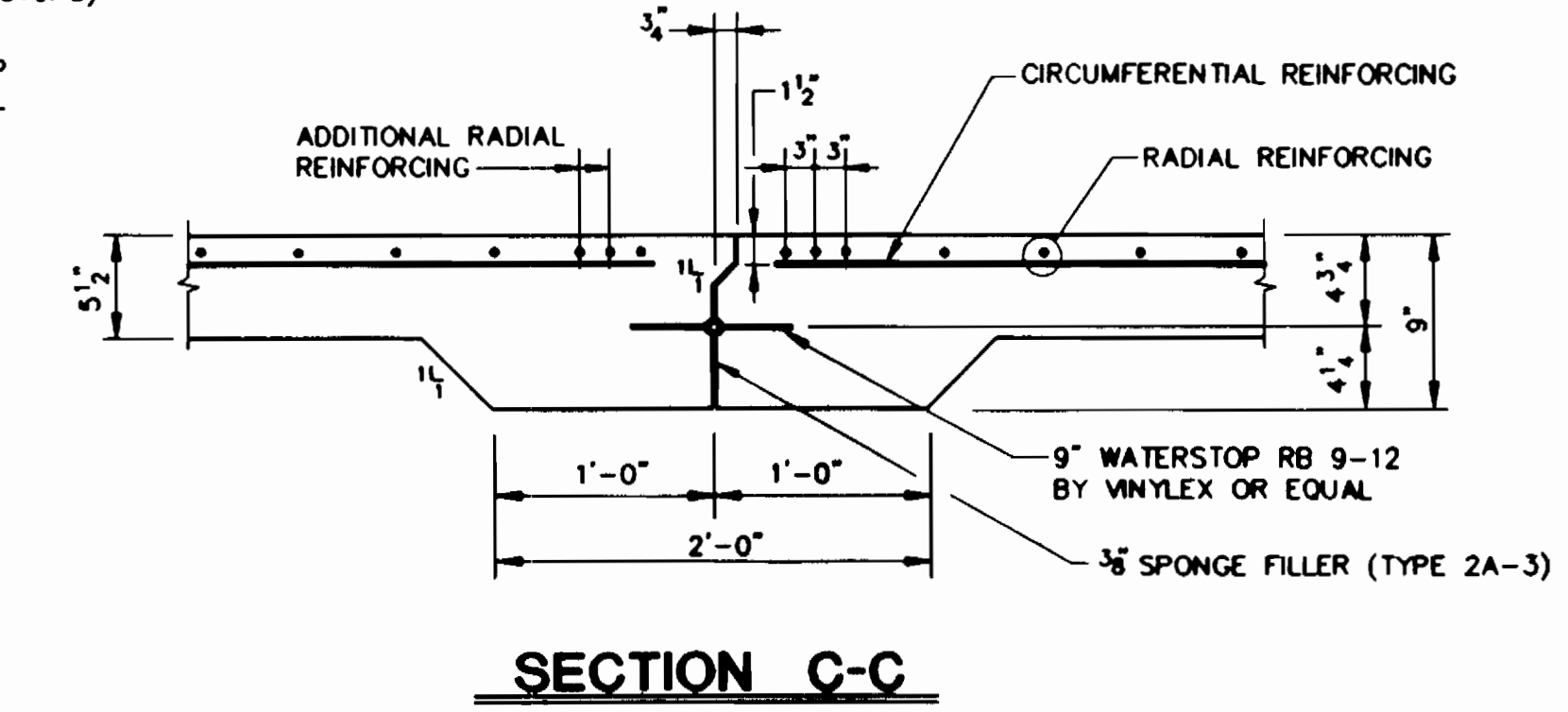
(LOCATE AND INSTALL AFTER DOME CONSTR. EXPANSION ANCHORS INSIDE TANK TO BE LOCATED DIRECTLY UNDER 1" S/S PIPES IN THE DOME)
TOTAL: 13 REQ'D - 10 INSIDE, 3 OUTSIDE



DETAIL 1
(HORIZ. TO HORIZ. WATERSTOPS)



DETAIL 2
(HORIZ. TO VERTICAL WATERSTOPS)



PROPOSED RADIAL CONSTRUCTION JOINTS

NOTE: IF RADIAL JOINTS ARE TO BE USED, PRIOR APPROVAL IS REQUIRED FROM ENGINEER
HO. CO. CONT. NO. 44-3385 HO. CO. C.P. NO. W-8051

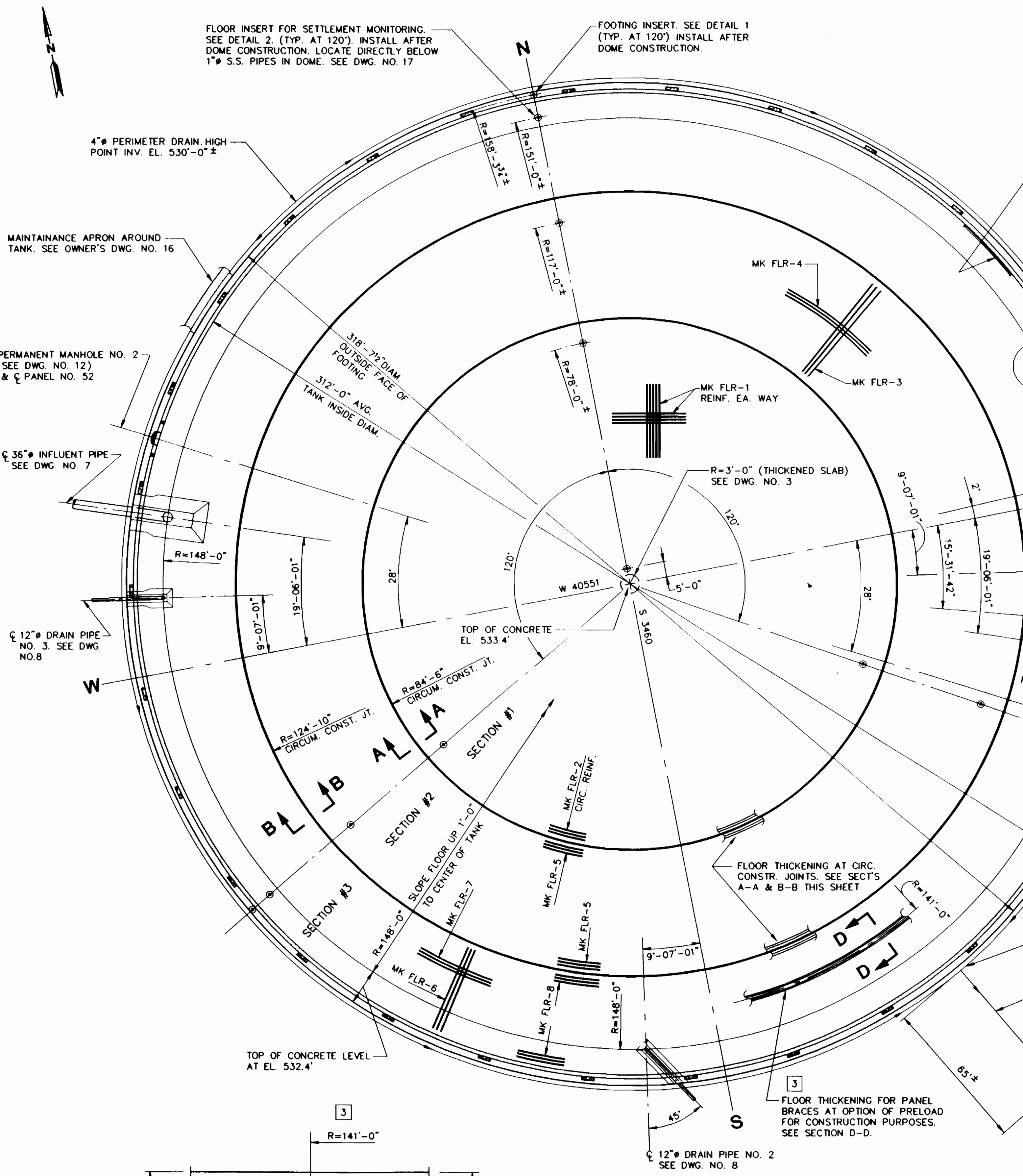
WORKING DRAWING

ONE 20.0 M.G. WATER STORAGE TANK
CATONVILLE, MARYLAND

DWG. NO. 90-1983 '01

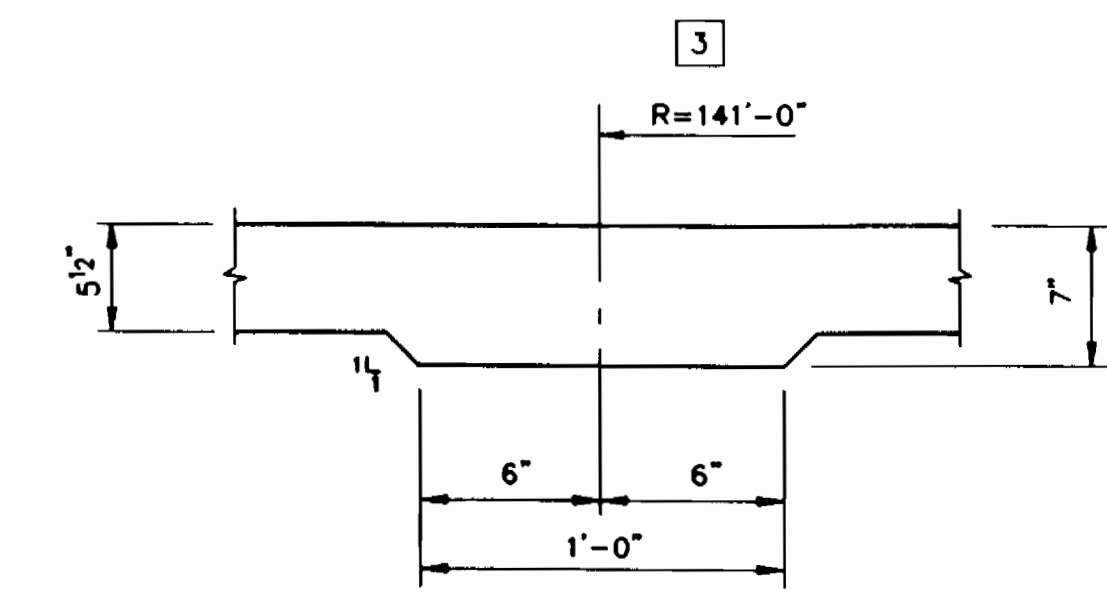
FLOOR DETAILS

DRAWN: JD	SCALE: AS SHOWN	CONTRACT NUMBER: 91 PD 005
DESIGNED: RAO		DRAWING NUMBER:
CHECKED: TM	DATE: 5-20-91	DRAWING NO. 88903-15



PLAN

SCALE: 1" = 20'-0"



SECTION D-D

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" (REV'D 1/90)

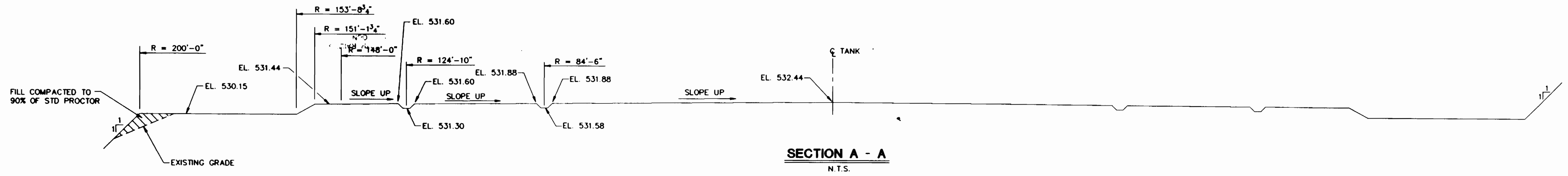
REVISIONS			
NO.	DATE	DESCRIPTION	BY CKD
1	7-22-91	PER ENGR'S COMMENTS	JD RAO
2	9/12/91	AS INDICATED	PV RAO
3	10/2/91	AS SHOWN	JD RAO
4	6/11/93	AS BUILT	PV RAO



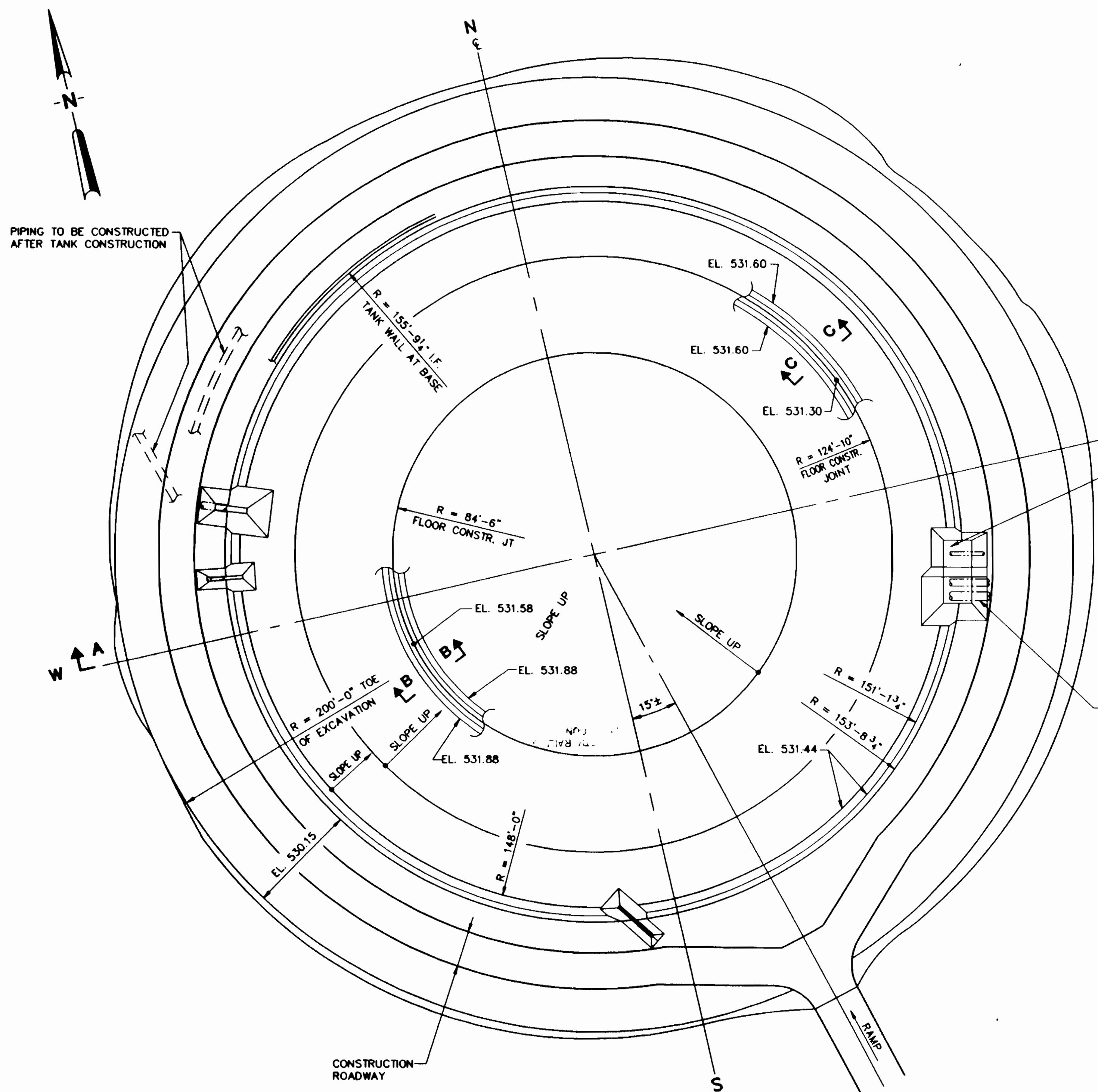
839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530
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3385 w/15

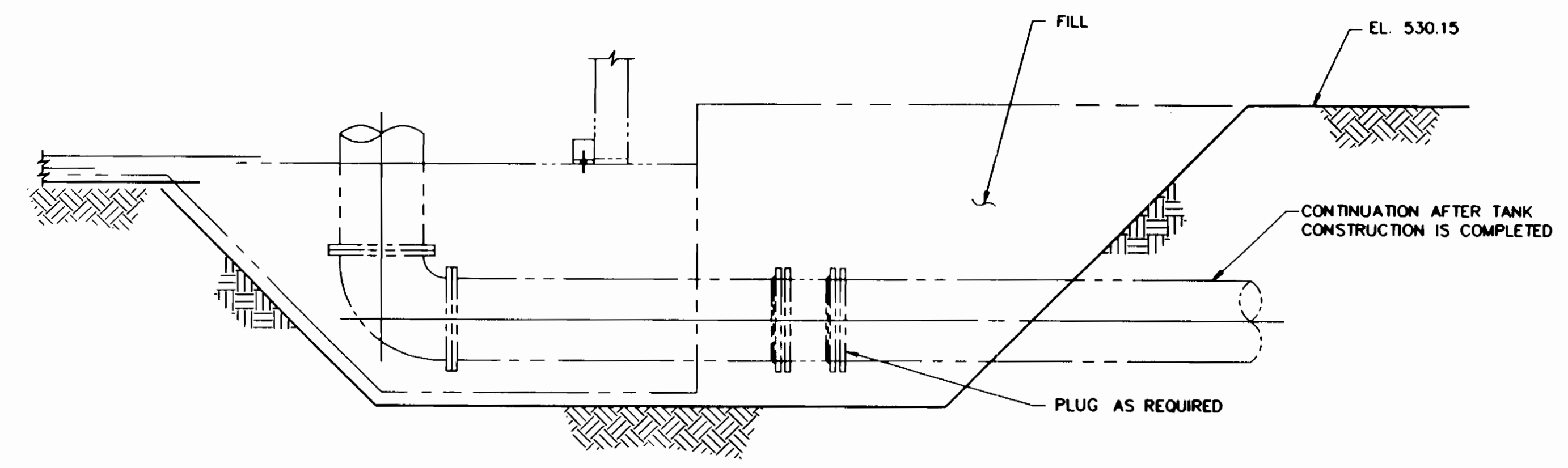
3385 w/16



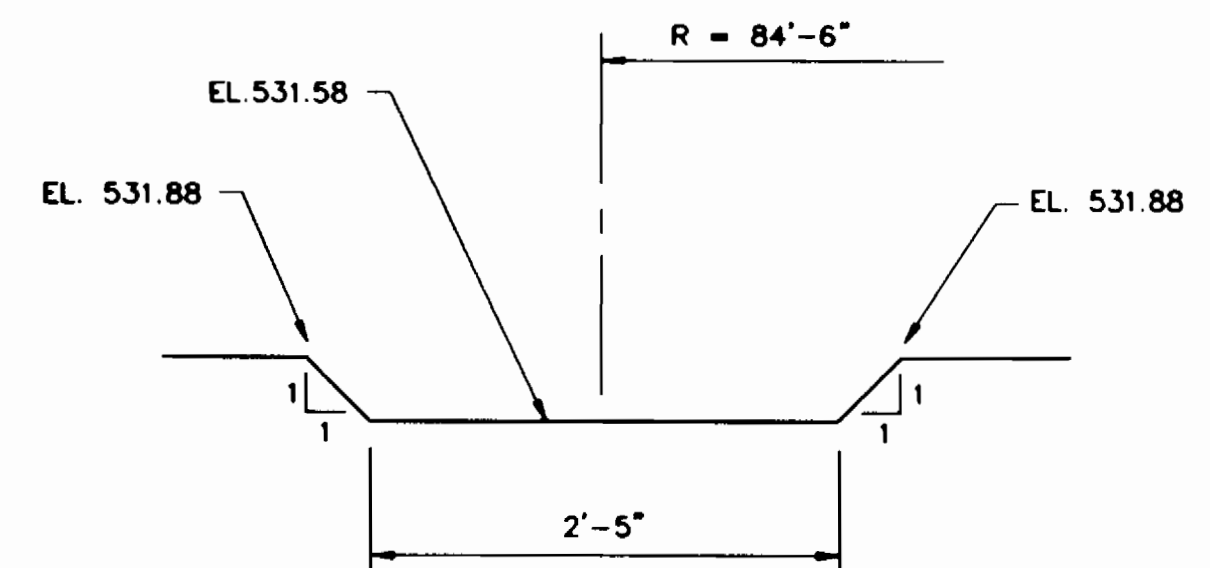
SECTION A - A
N.T.S.



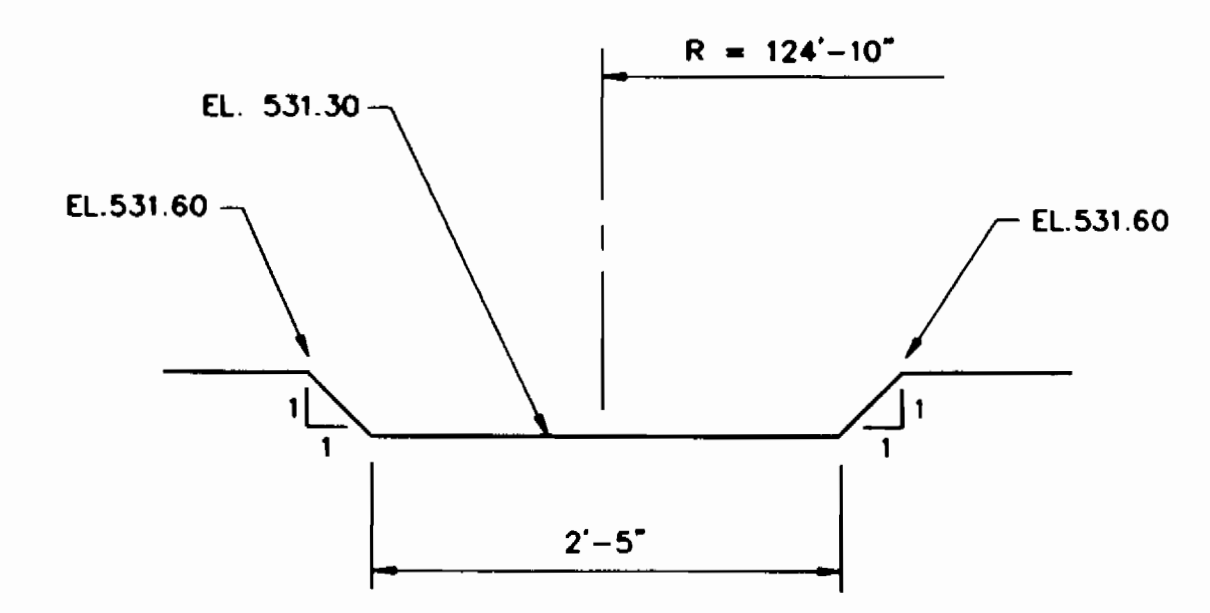
EXCAVATION PLAN
SCALE: 1" = 30'



TYPICAL SECTION AT PIPE ENCASEMENTS



SECTION B-B

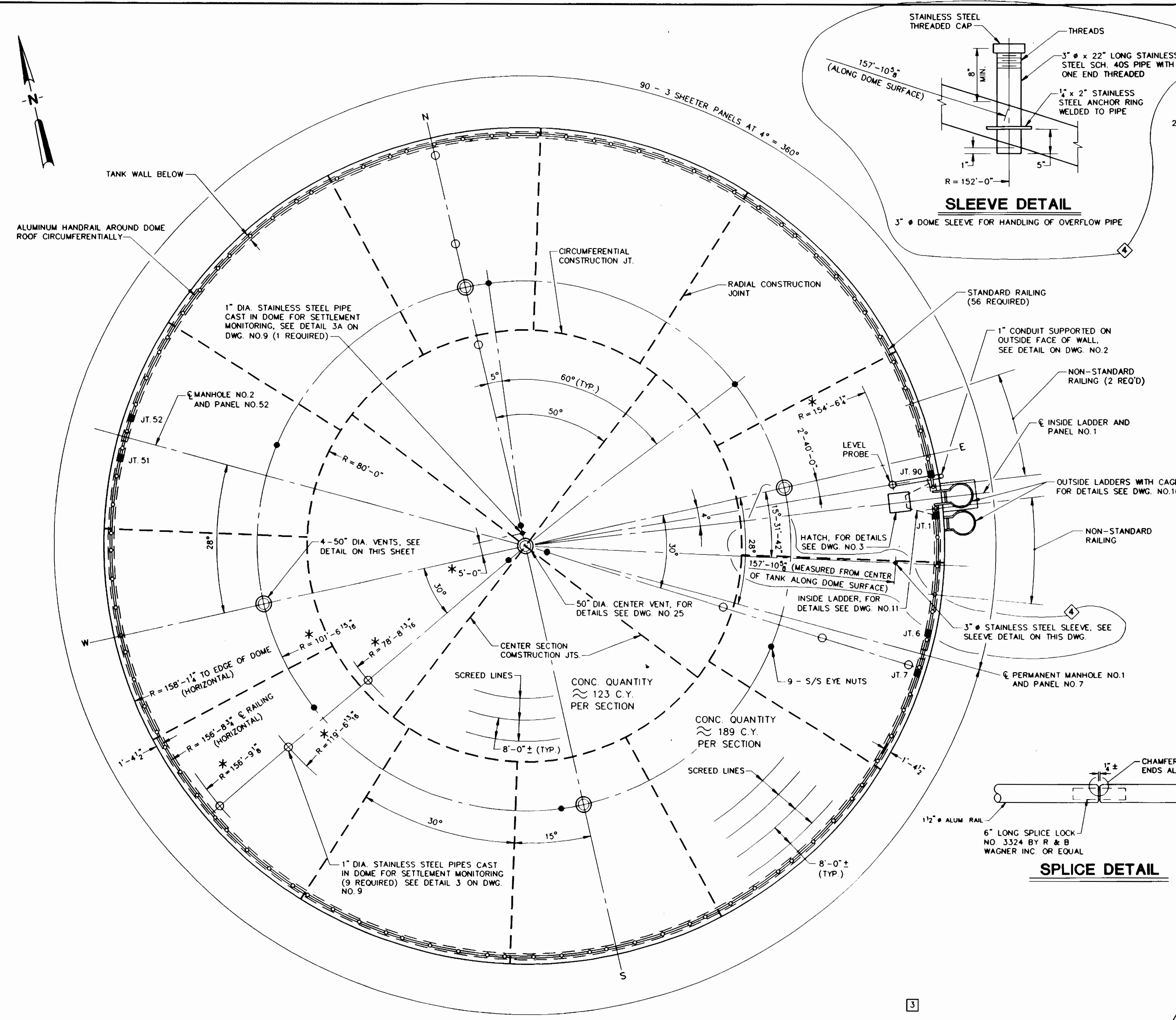


SECTION C-C

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" (REV'D 1/90)

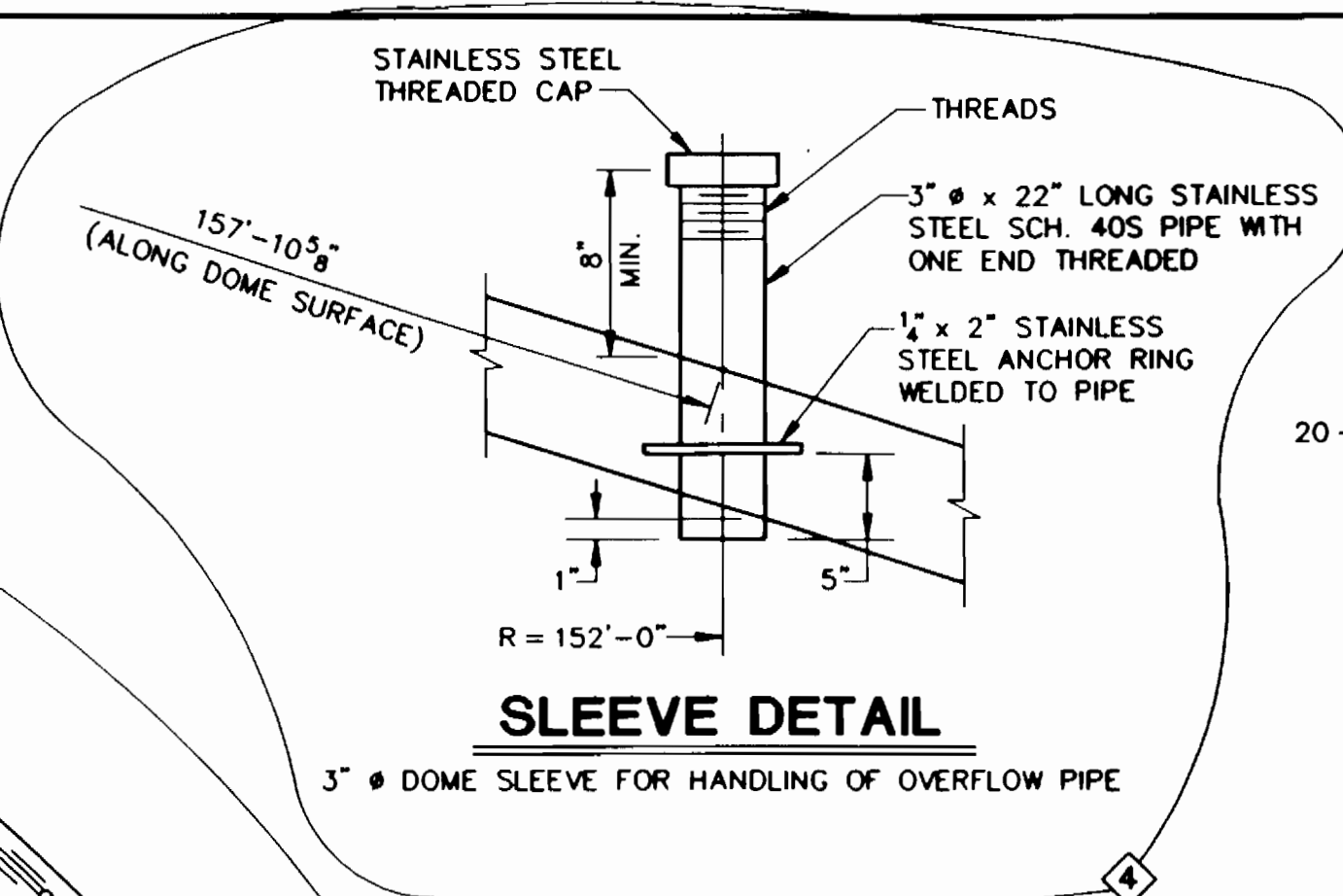
REVISIONS				PRELOAD		ONE 20.0 M.G. WATER STORAGE TANK	
NO.	DATE	DESCRIPTION	BY	CHKD	CATONVILLE, MARYLAND		
1	6/11/93	AS BUILT	PV	RAO	DWG. NO. 90-1983P		
<small>THIS DRAWING IS THE PROPERTY OF PRELOAD INC. AND IS SUBJECT TO RETURN ON DEMAND. IT CONTAINS FEATURES OF DESIGN WHICH ARE FULLY COVERED BY PATENTS AND PATENTS PENDING AND COPYRIGHTS. IT IS SUBMITTED FOR USE ONLY IN CONNECTION WITH PROPOSALS OR CONTRACTS OF PRELOAD OR ITS LICENSEES, UPON THE EXPRESS CONDITION THAT IT MAY NOT BE USED ON ANY OTHER DIFFERENT PROJECTS WITHOUT PRIOR APPROVAL OF PRELOAD.</small>					DESIGNED: RAO	SCALE:	CONTRACT NUMBER: 91 PD 005
					CHECKED: TM	DATE: 5/20/91	DRAWING NUMBER: 88903-16
					<small>839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530</small>		

HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051
WORKING DRAWING

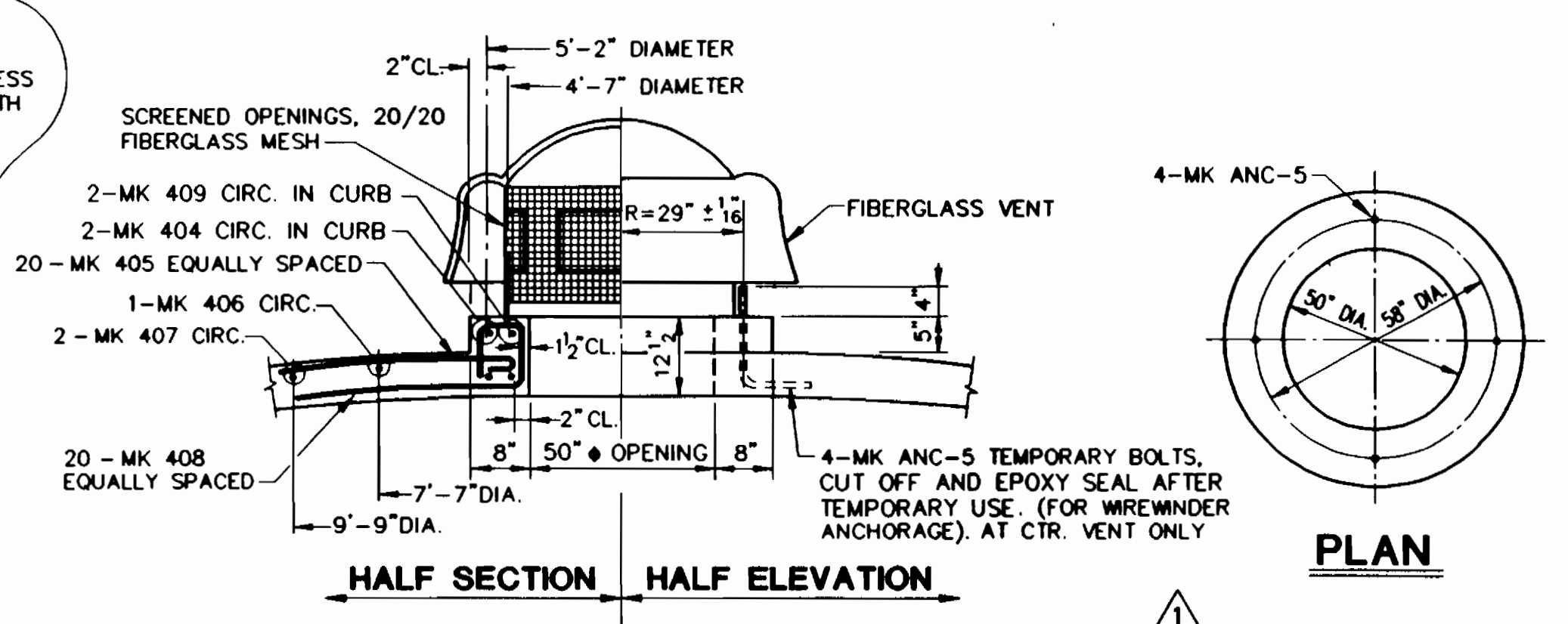


TANK ROOF PLAN
N.T.S.

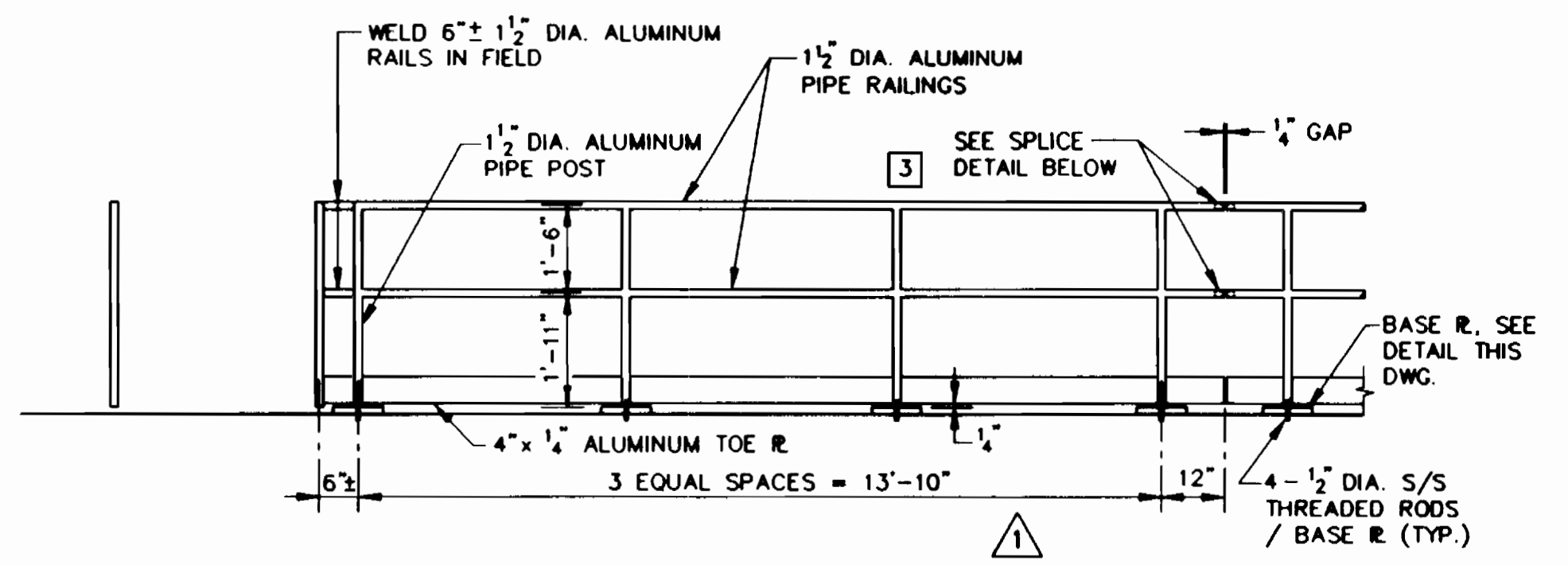
* NOTE: LOCATION OF ALL INSERTS AND VENTS MEASURED FROM CENTER OF TANK ALONG DOME SURFACE EXCEPT AS NOTED.



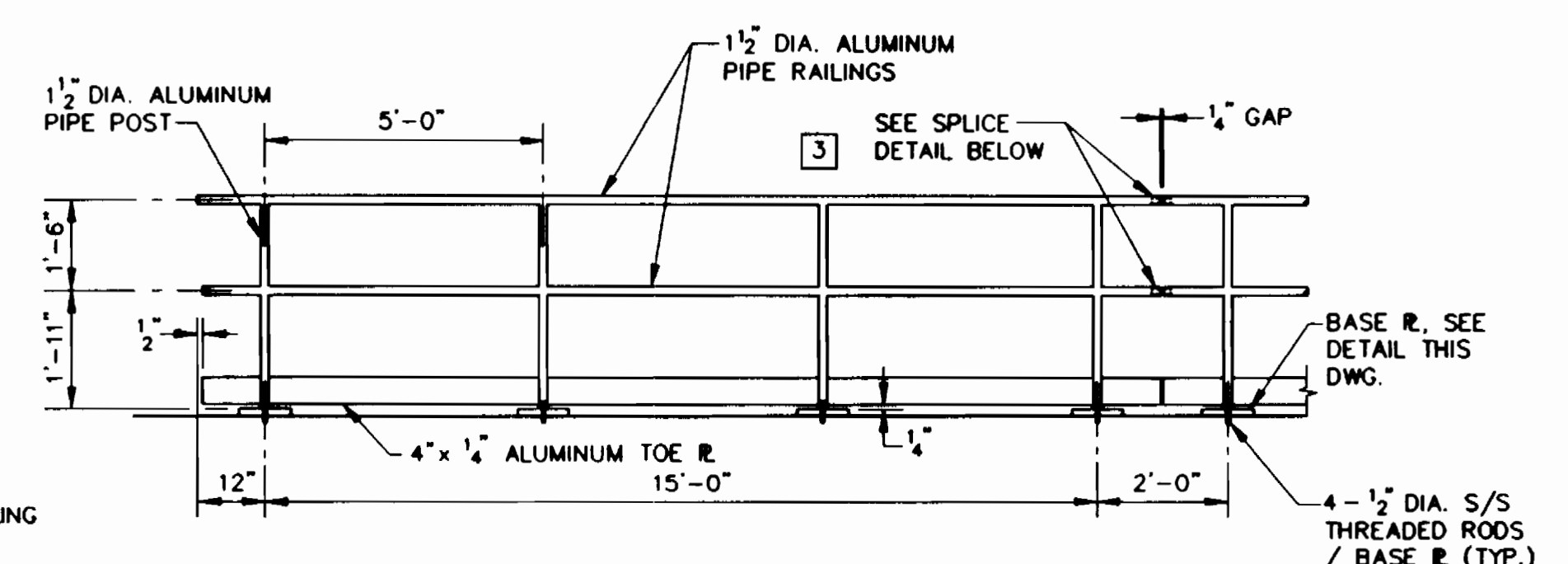
SLEEVE DETAIL
3" Ø DOME SLEEVE FOR HANDLING OF OVERFLOW PIPE



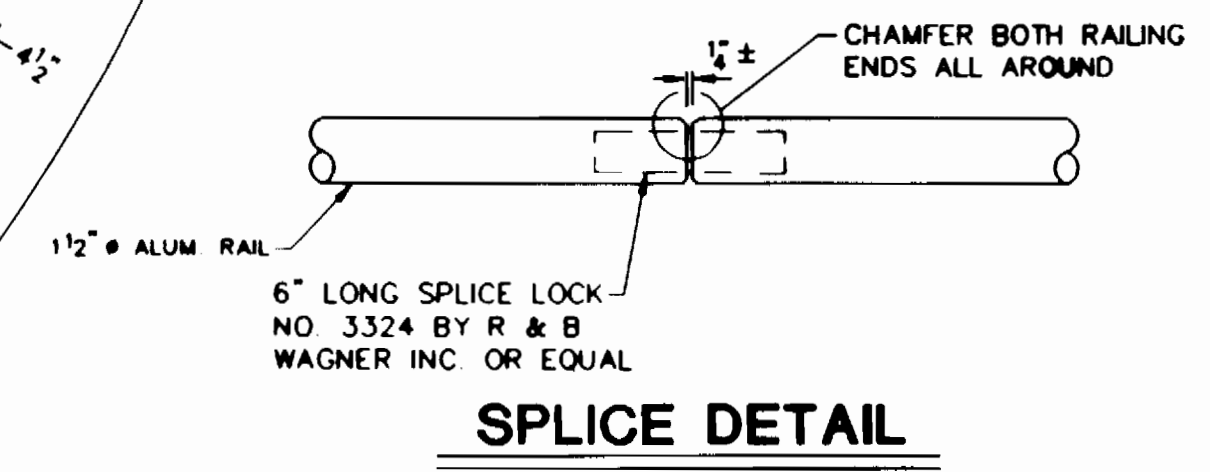
VENT DETAILS
(5 REQUIRED)



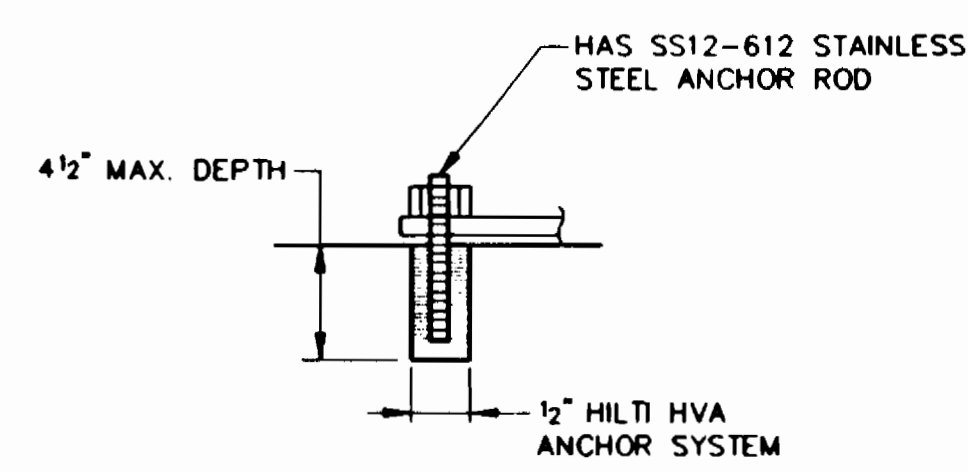
NON-STANDARD RAILING SECTION DETAIL
NOTE: NON CONDUCTIVE COATING BETWEEN BASE PLATE AND DOME SURFACE



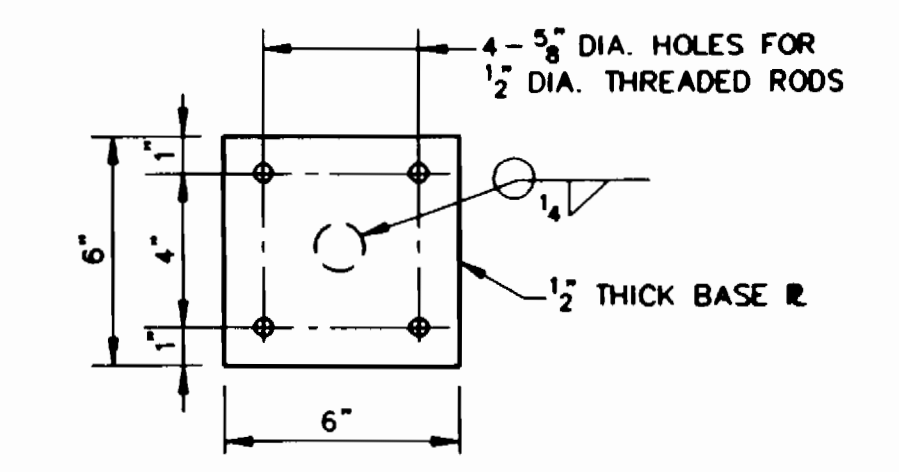
STANDARD RAILING SECTION DETAIL
NOTE: NON CONDUCTIVE COATING BETWEEN BASE PLATE AND DOME SURFACE



SPLICE DETAIL



THREADED ROD DETAIL



BASE PLATE DETAIL
MATERIAL: ALUMINUM

HO. CO. CONT. NO. 44-3385
HO. CO. C.P. NO. W-8051

WORKING DRAWING

REVISIONS				
NO.	DATE	DESCRIPTION	BY	CKD
1	7/22/91	PER ENGINEERS COMMENTS	PV	RAO
2	9/12/91	PER ENGINEERS COMMENTS	PV	RAO
3	11/6/92	REVISED RAILING DETAILS	EZ	RAO
4	6/11/93	AS BUILT	PV	RAO

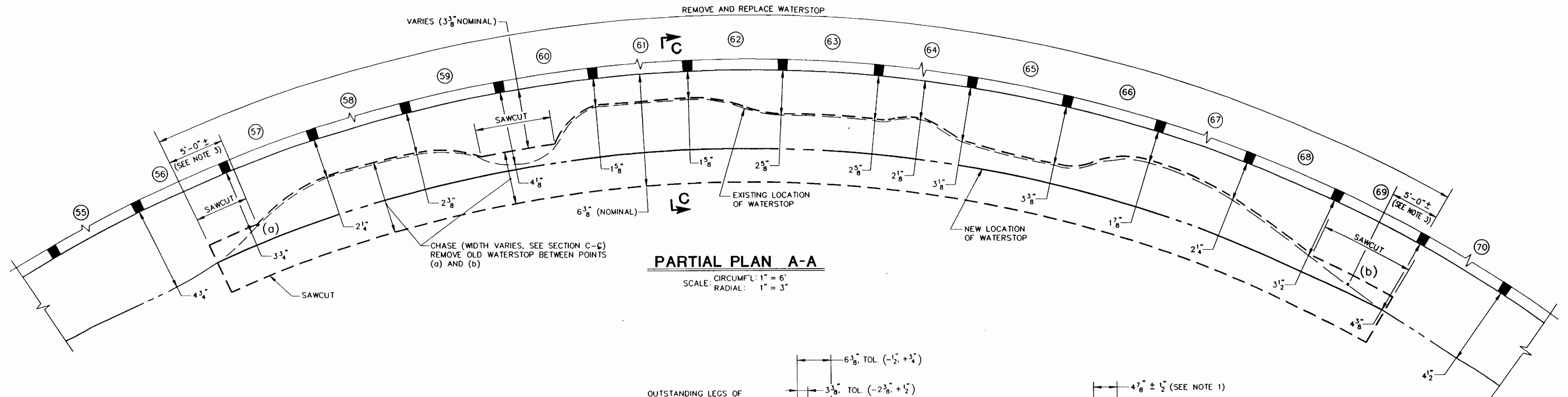
PRELOAD
839 STEWART AVENUE, GARDEN CITY, NEW YORK, 11530

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ONE 20.0 M.G. WATER STORAGE TANK GATONVILLE, MARYLAND			
DWG. NO. 90-1983 Q			
ROOF AND RAILING DETAILS			
DRAWN: PV	SCALE: NONE	CONTRACT NUMBER: 91 PD 005	
DESIGNED: RAO		DRAWING NUMBER: MD	
CHECKED: TM	DATE: MAY 20, 1991	DRAWING NUMBER: 88903-17	

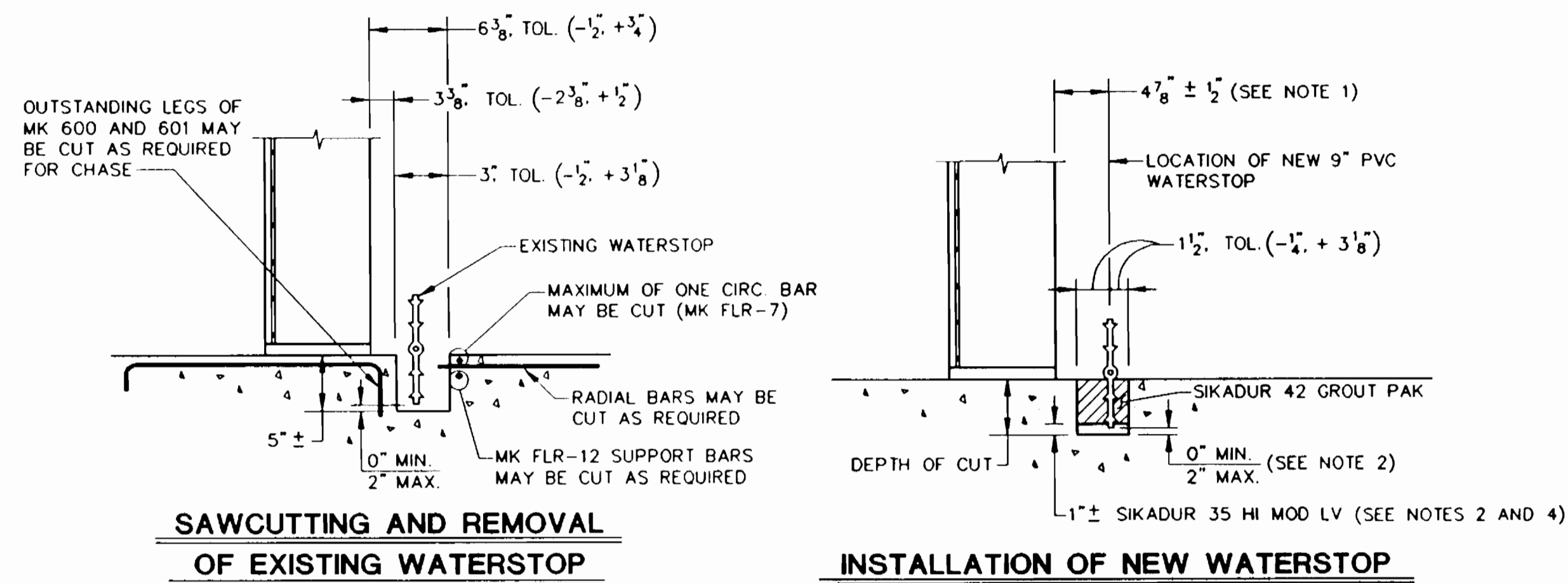
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3385 w/17



PARTIAL PLAN A-A

SCALE: CIRCUMF'L: 1" = 6'
RADIAL: 1" = 3"



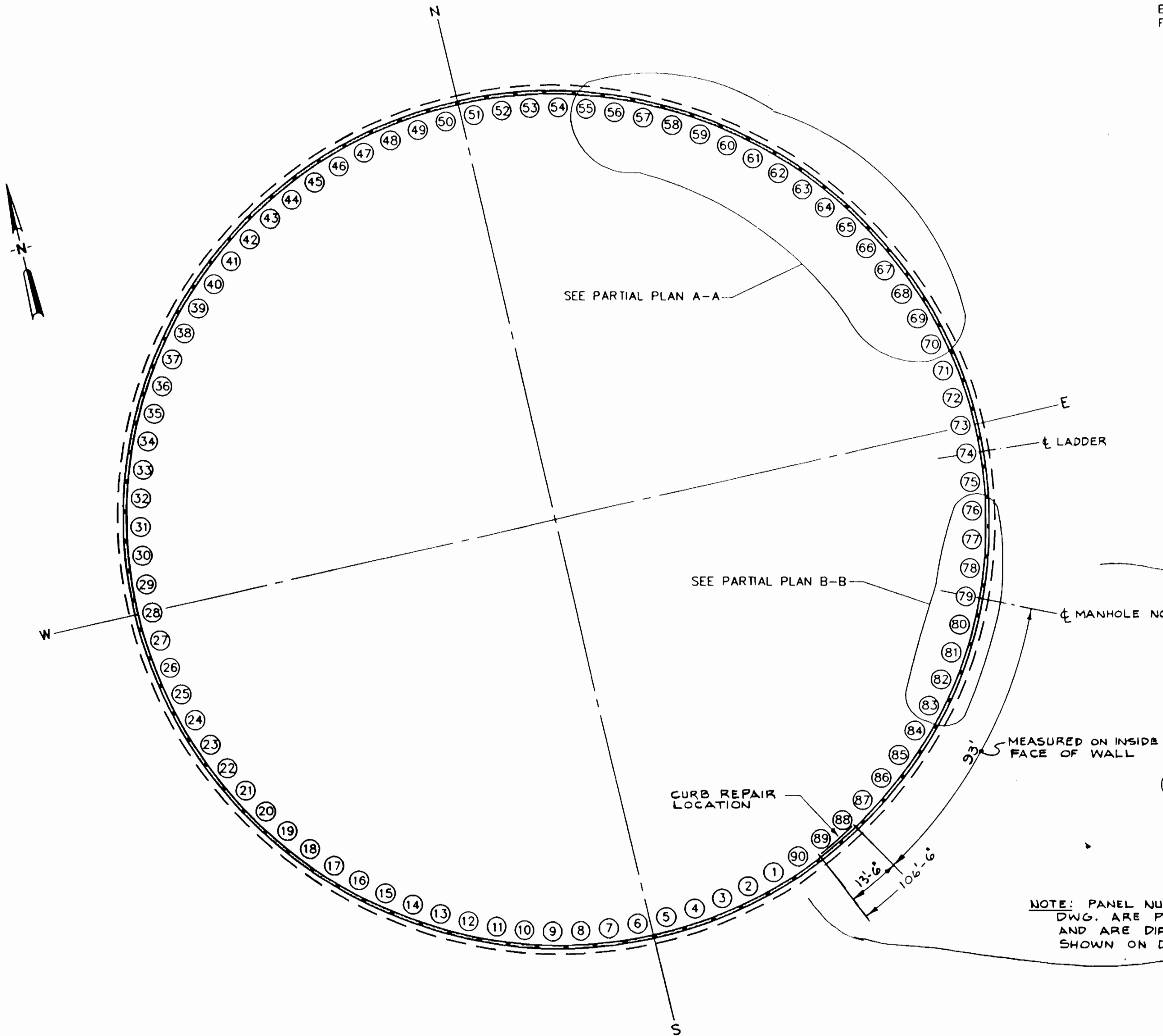
SAWCUTTING AND REMOVAL OF EXISTING WATERSTOP

INSTALLATION OF NEW WATERSTOP

SECTION C-C
N.T.S.

NOTES:

- GAP BETWEEN WATERSTOP AND WALL SHOULD NOT VARY MORE THAN 1/2" IN 2'-0" LENGTH.
- SIKADUR 35 HI MOD LV TO ENCAPSULATE AT LEAST 1/2" OF THE BOTTOM TIP OF THE WATERSTOP. LIFTS TO BE PLACED IN ACCORDANCE WITH MANUFACTURERS DIRECTIONS.
- AT THE ENDS OF THE CHASE EXERCISE EXTREME CARE NOT TO DAMAGE THE 5"± LENGTHS OF EXISTING WATERSTOP WHICH IS TO BE LEFT IN PLACE.
- BEFORE APPLYING SIKADUR 35 HI MOD LV, CLEAN THE CHASE COMPLETELY WITH COMPRESSED AIR TO REMOVE ALL DUST AND DEBRIS (COMPRESSED AIR TO BE FREE OF OIL CONTAMINATION).

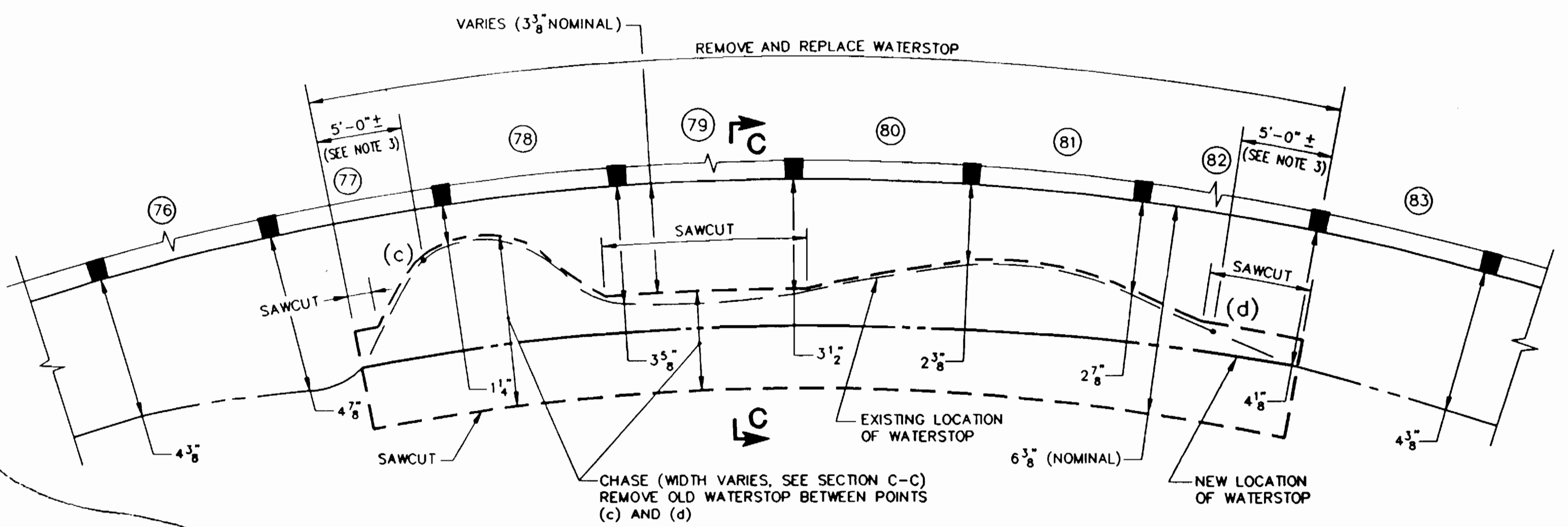


PANEL LAYOUT

SCALE: 1" = 30'

NOTE: PANEL NUMBERS SHOWN ON THIS DWG. ARE PER ACTUAL FIELD ERECTION AND ARE DIFFERENT FROM NUMBERS SHOWN ON DWG. NO. 13.

THE DETAILS SHOWN ON THIS DRAWING SHALL BE PRODUCED WITHIN THE GUIDELINES AND REQUIREMENTS SPECIFIED IN PRELOAD CO. "CONSTRUCTION SPECIFICATIONS AND PROCEDURES" (REV'D 1/90)



PARTIAL PLAN B-B

SCALE: CIRCUMF'L: 1" = 6'
RADIAL: 1" = 3"

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	3/16/92	ADDITION TO NOTES AS INDICATED	PV RAO
2	7/24/93	CURB REPAIR - AS BUILT	PV RAO

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ONE 20.0 M.G. WATER STORAGE TANK			
CATONSVILLE, MARYLAND			
DWG NO. 90-1983R			
WATERSTOP RELOCATION DETAILS			
DRAWN: PV	SCALE: AS NOTED	CONTRACT NUMBER: 91 PD 005	
DESIGNED: RAO		DRAWING NUMBER: MD	
CHECKED:	DATE: FEB. 18, 1992	DRAWING NUMBER: 88903-SK-1	

3385 W/18