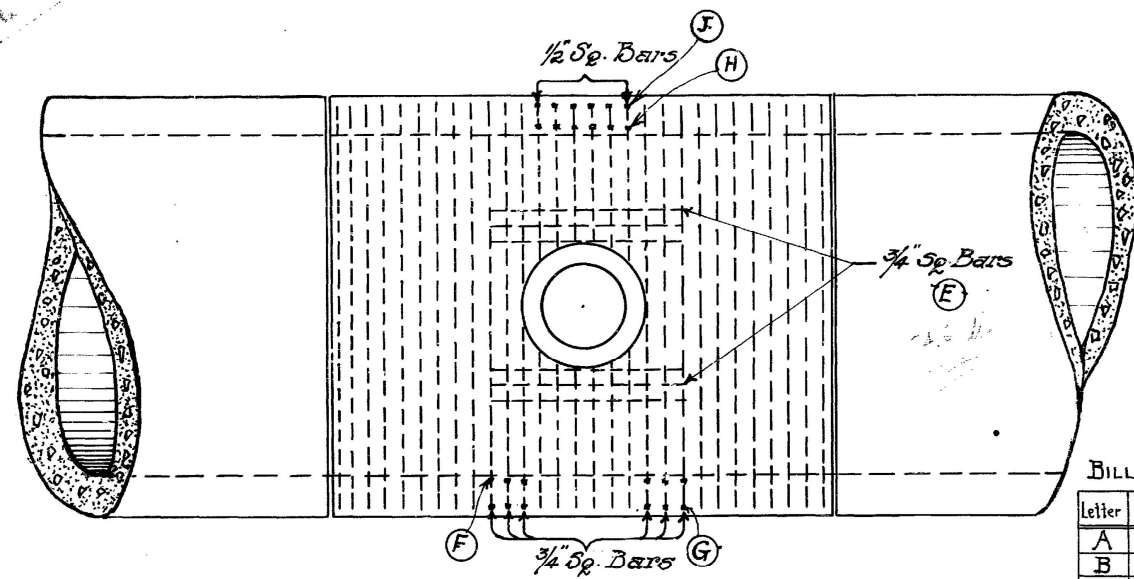


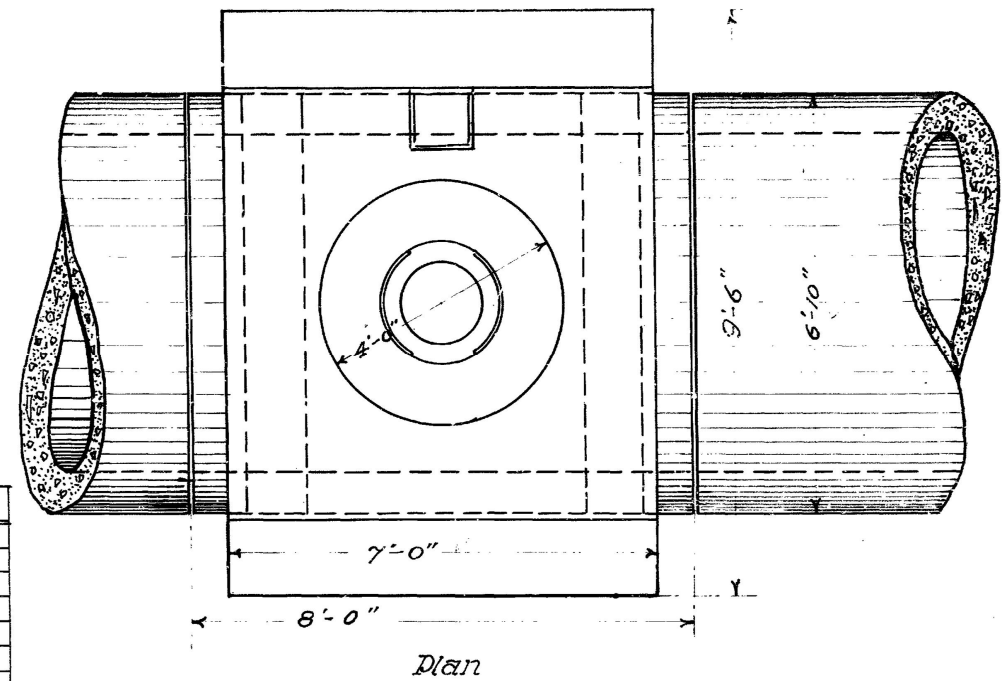
**APPENDIX E – HISTORIC RECORD DRAWINGS**



Arrangement of Reinforcing Steel around Manhole

BILL OF STEEL FOR ONE MANHOLE

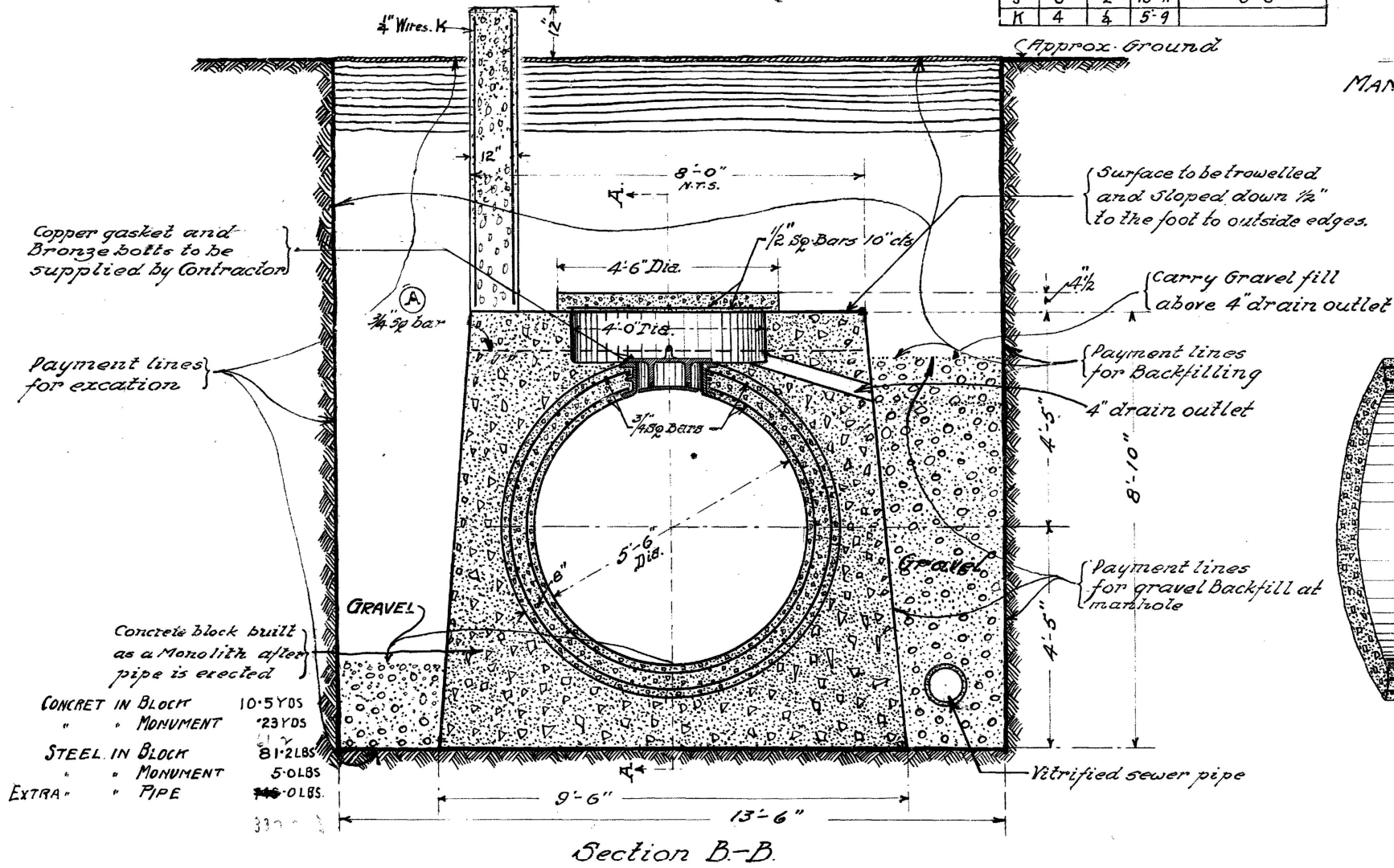
Letter	Pcs	Size	Length	Description
A	4	3/4	8'-0"	Straight
B	2	1/2	4'-4"	"
C	4	1/2	4'-0"	"
D	4	1/2	3'-2"	"
E	12	3/4	3'-3"	"
F	6	3/4	20'-3"	Bent to 5'-10" dia
G	6	3/4	22'-4"	" " 6'-6" "
H	6	1/2	16'-9"	" " 5'-10" "
J	6	1/2	18'-11"	" " 6'-6" "
K	4	1/4	5'-9"	"



Dian

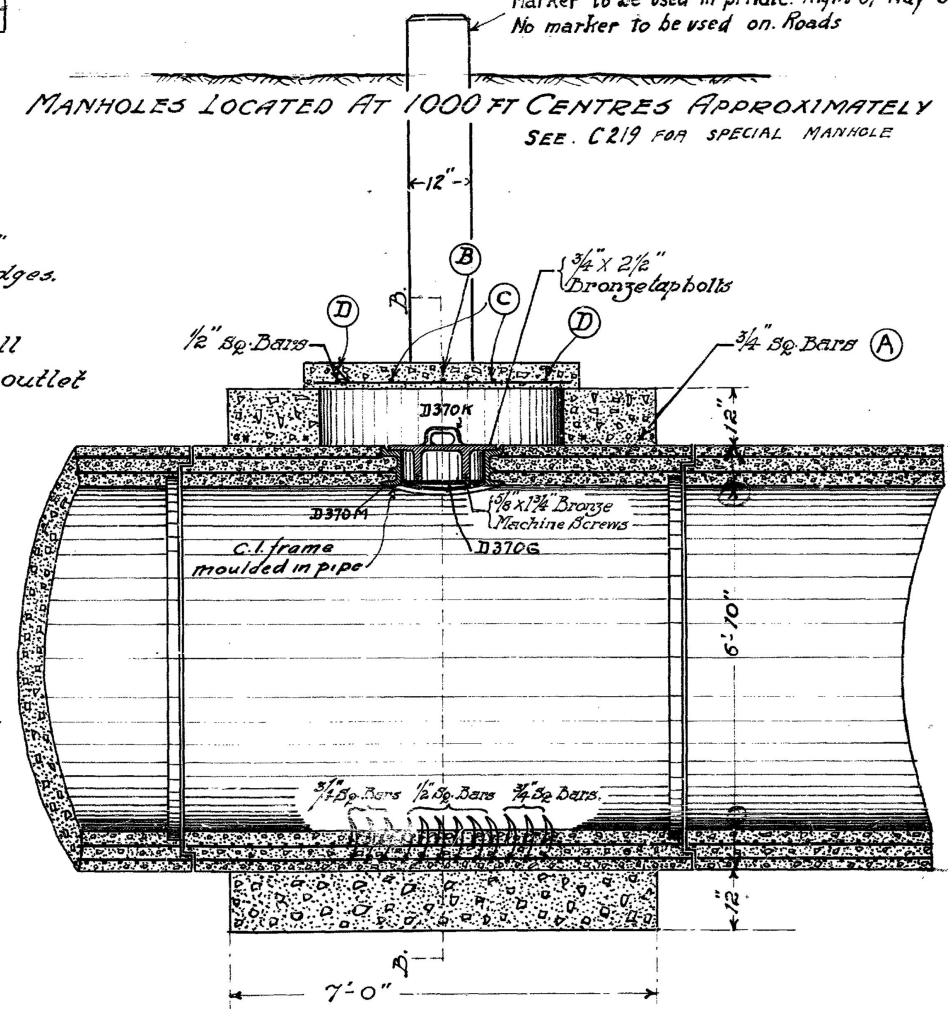
Marker to be used in private: Right of Way only  
No marker to be used on Roads

MANHOLES LOCATED AT 1000 FT CENTRES APPROXIMATELY  
SEE C-219 FOR SPECIAL MANHOLE



Section B-B

CONCRET IN BLOCK	10.5 YDS
" " MONUMENT	23 YDS
STEEL IN BLOCK	81.2 LBS
" " MONUMENT	5.0 LBS
EXTRA " PIPE	0.1 LBS



Section A-A

CONTRACT N<sup>o</sup> 55

C-159

DRAWN BY *J.H.*  
TRACED BY *A.F.B.*  
CHECKED BY *J.H.*  
APPROVED *M.S.*

Bill of steel added May 8-1917.  
Marker. " June 28-1917.  
Gravel Backfill changed June 29, 1917  
Concrete & steel quantities added Feb 2-1917

*James H. Furtis*  
CONSULTING ENGINEER.  
*W. C. Chee*  
CHIEF ENGINEER.

**GREATER WINNIPEG WATER DISTRICT**  
**TYPICAL MANHOLE 5'-6" PRESSURE PIPE**

JULY 25<sup>th</sup> 1916

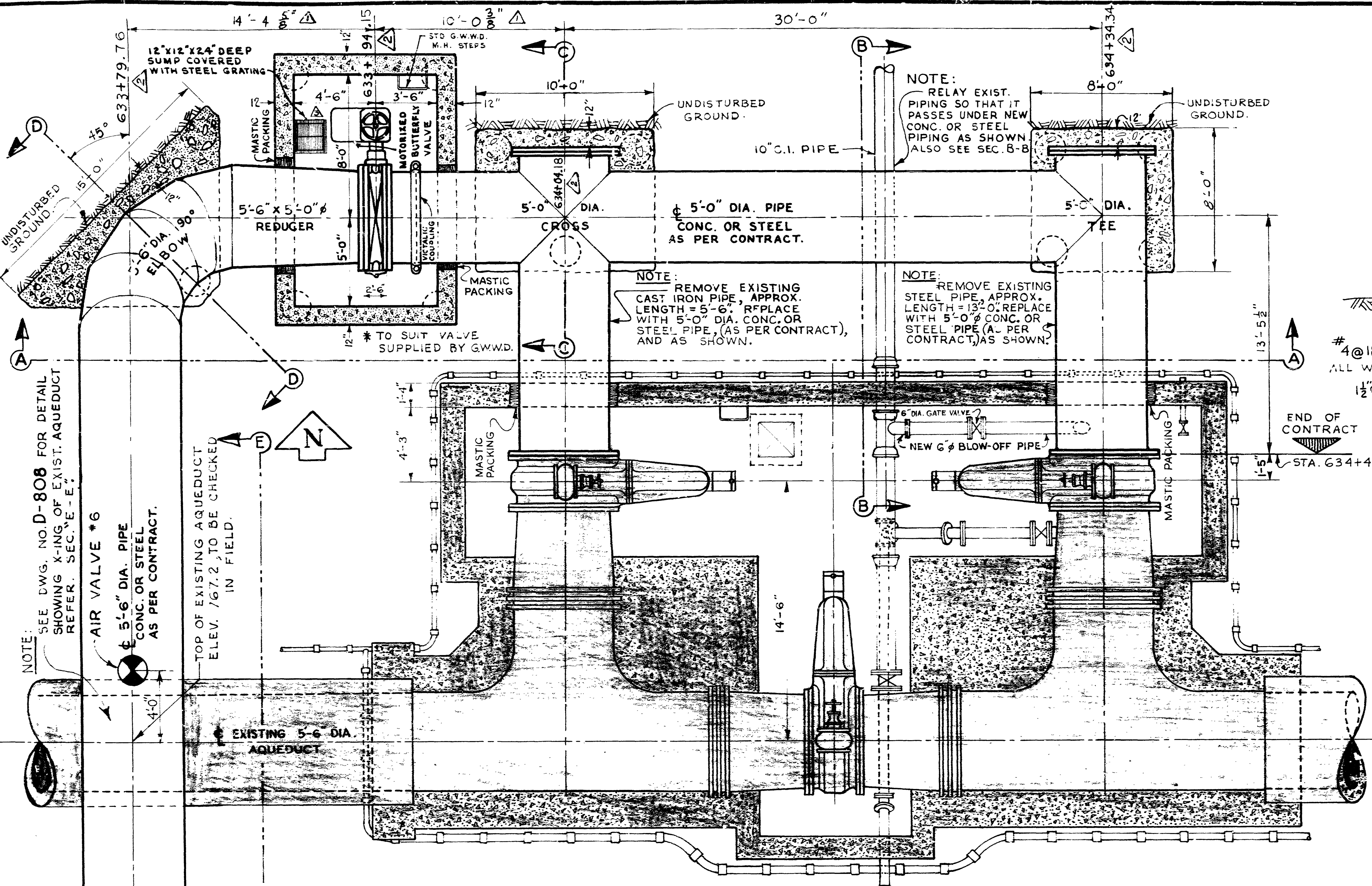
Scale 1/2" = 1'



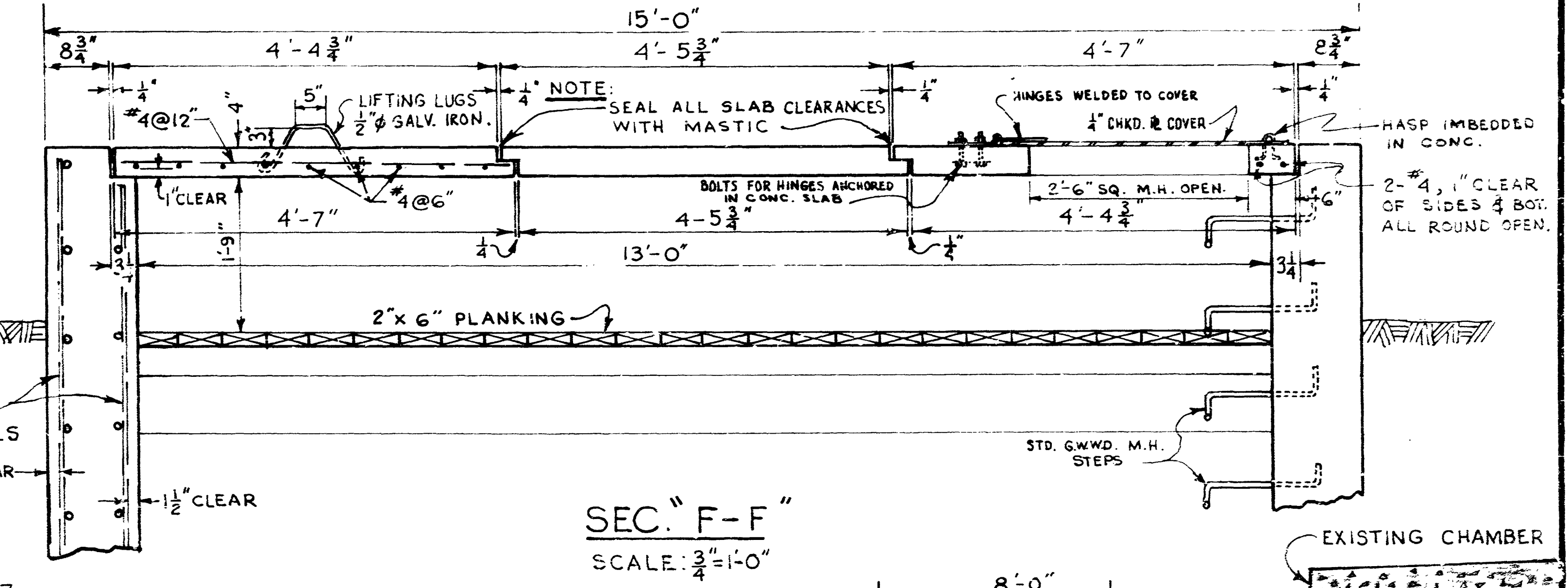
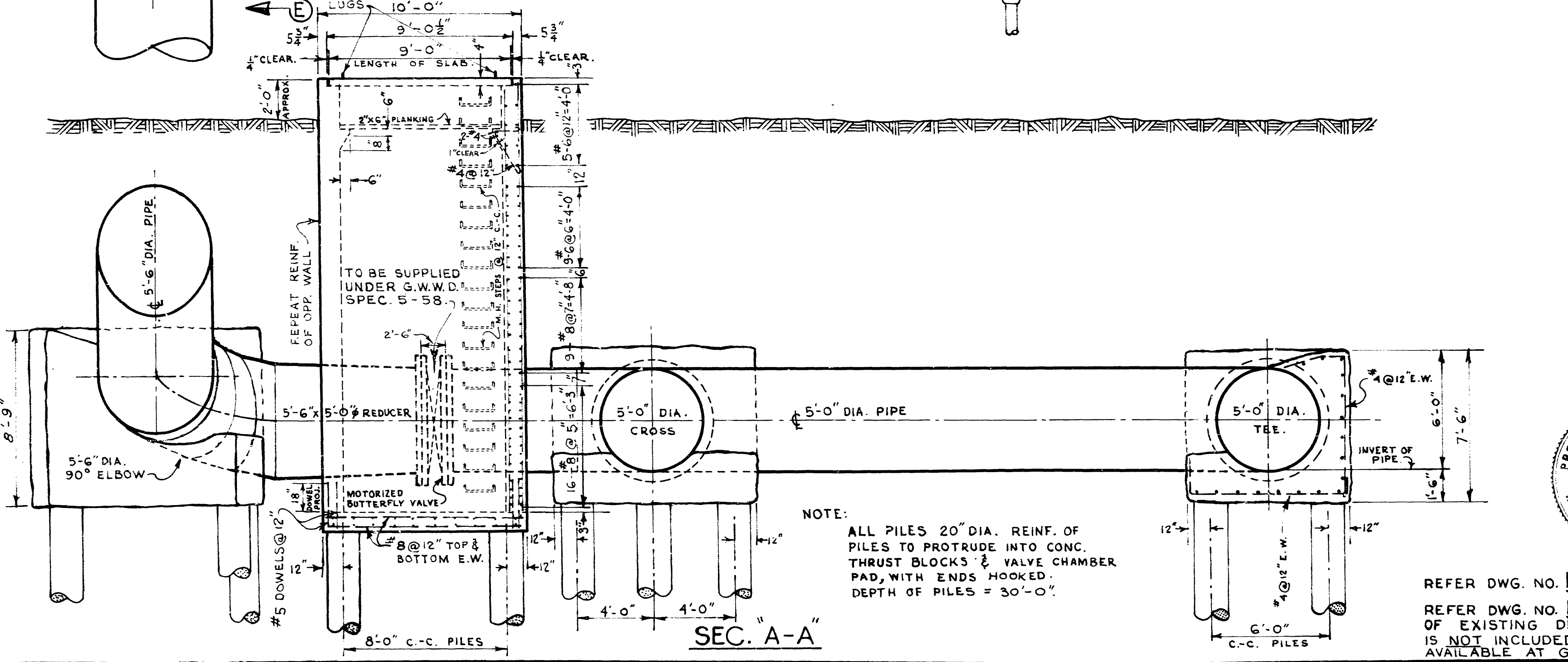




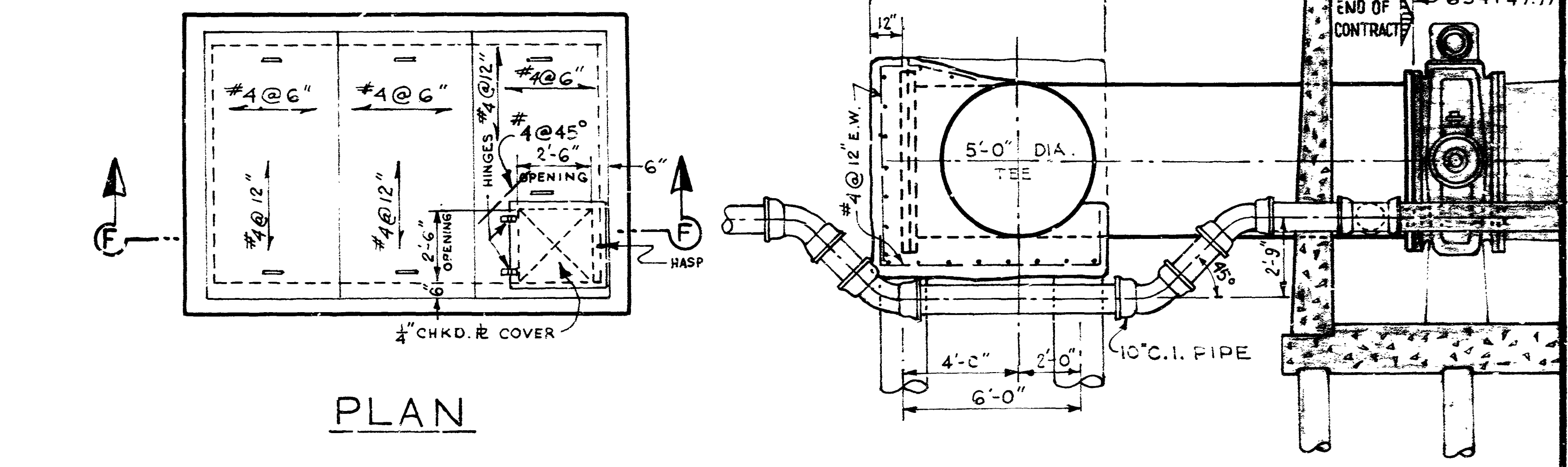




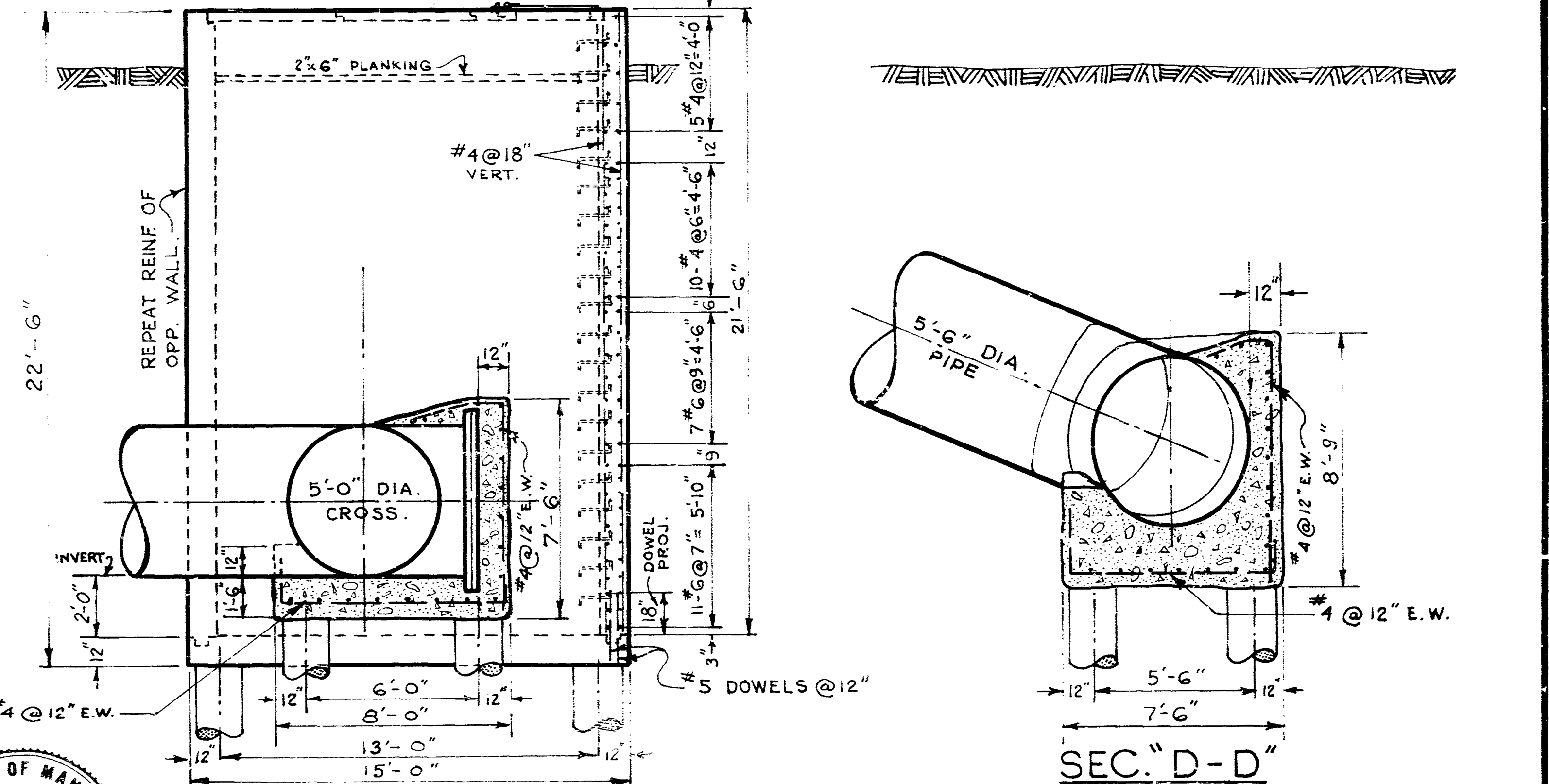
PLAN OF CONNECTION TO EXISTING CHAMBER AT DEACON



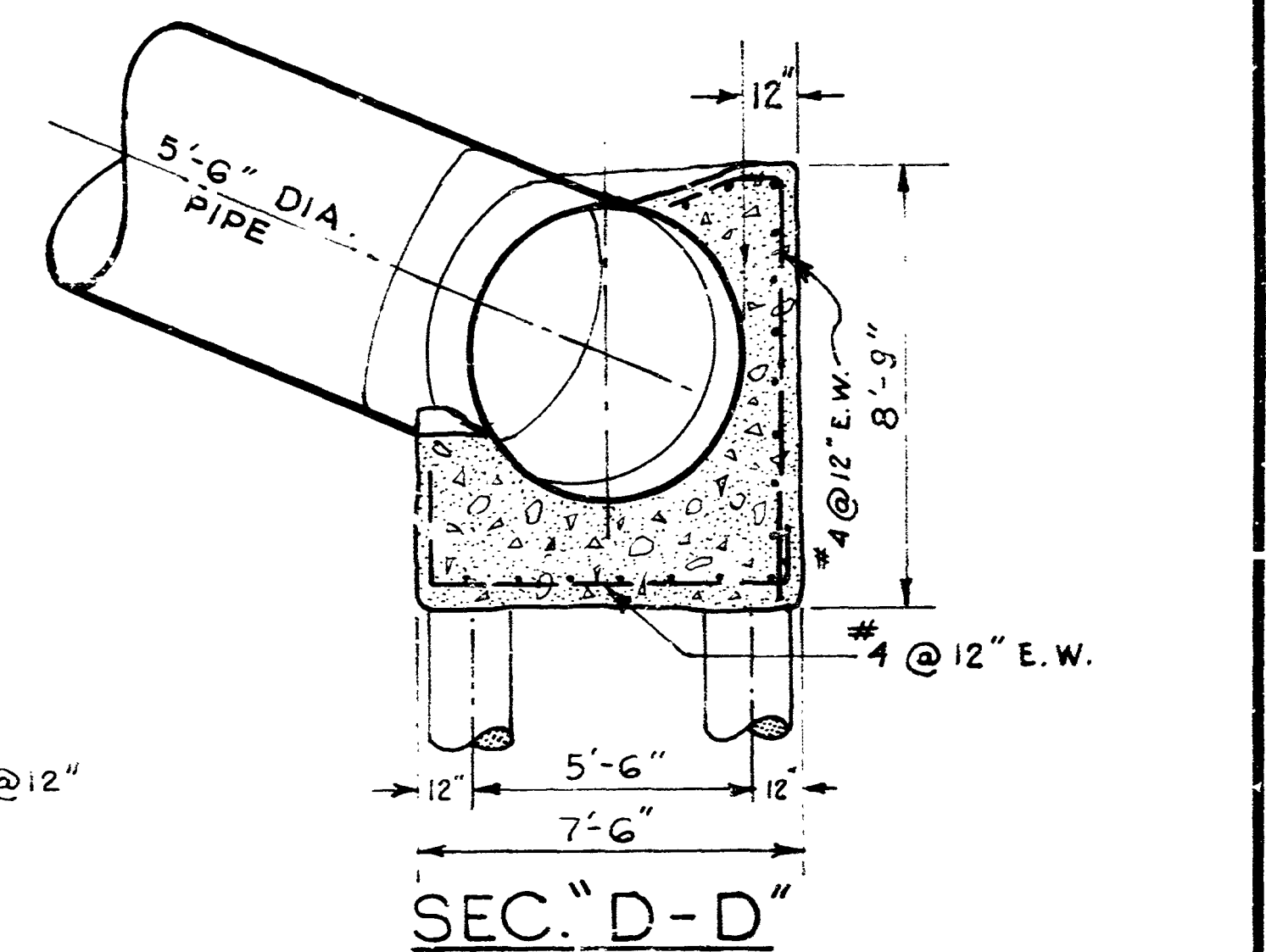
SEC. "F-F"  
SCALE 3/4" = 1'-0"



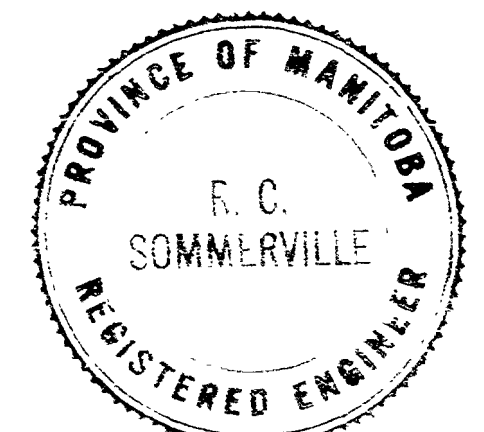
PLAN



SEC. "C-C"



SEC. "D-D"



REFER DWG. NO. D-808 FOR SEC. "E-E"  
REFER DWG. NO. D-410-A FOR ADDITIONAL DETAILS OF EXISTING DEACON VALVE CHAMBER. (THIS DWG. IS NOT INCLUDED WITH CONTRACT PLANS BUT IS AVAILABLE AT G.W.W.D. HEAD OFFICE.)

REVISIONS		
NO.	DESCRIPTION	DATE BY
1	DIMENSIONS CHGD.	25 JUNE 58
2	STATIONS ADDED	25 JUNE 58
3	12" X 12" X 24" DEEP SUMP ADDED.	27 NOV 59 S.K.
ALL CHAINAGES REVISED TO FINAL (AS CONSTRUCTED)		
CHAINAGES. 23 SEPT. 60 - S.K.		

**GREATER WINNIPEG WATER DISTRICT  
SECOND BRANCH AQUEDUCT**

**DETAIL OF CONNECTION TO EXISTING AQUEDUCT AT DEACON**

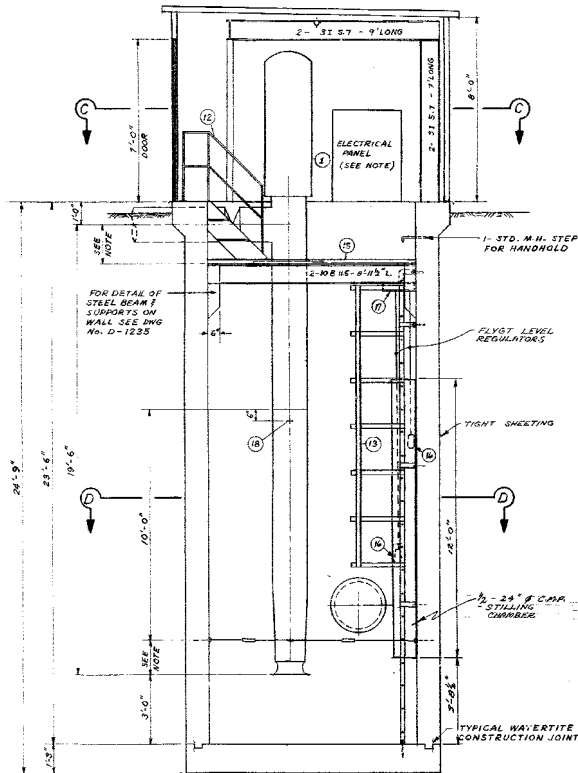
APPROVED BY <i>[Signature]</i> CHIEF ENGINEER	DESIGNED BY <i>[Signature]</i> DATE 22 SEPT 58	CHECKED BY <i>[Signature]</i> DATE 22 SEPT 58	DRAWING NO. <b>D-804</b>
---	--	---	-----------------------------

SCALE: 1/4" = 1'-0" & AS NOTED

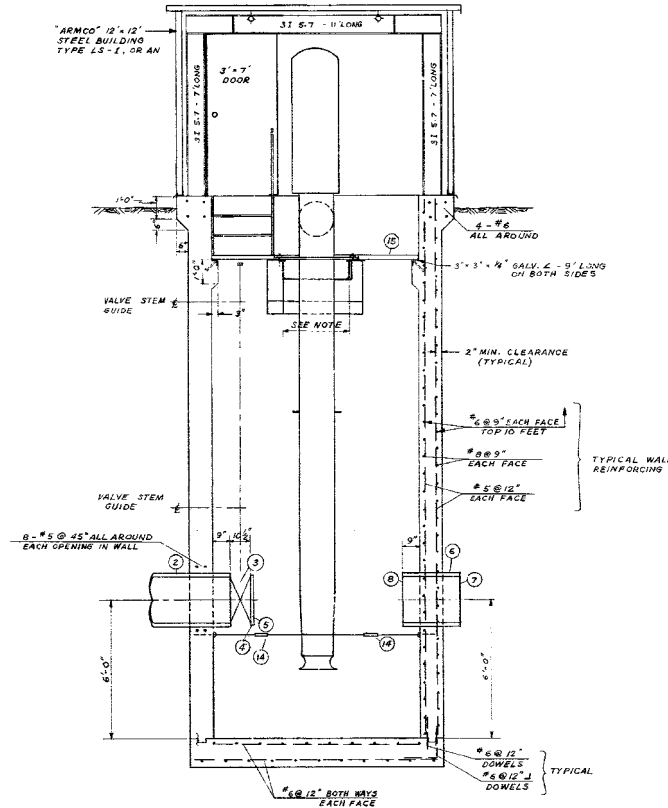


**NOTE:**

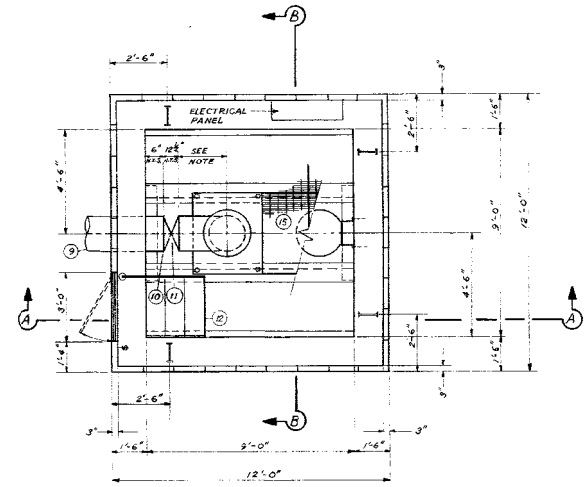
- BY OTHERS 1. FOR SCHEMATIC OF ELECTRICAL SYSTEM SEE DWG. NO. D-1235  
 2. ALL DIMENSIONS SHOWN "SEE NOTE" SHALL BE GIVEN AND/OR DETERMINED BY PUMP MANUFACTURER'S SHOP DRAWINGS, SUBJECT TO APPROVAL OF THE ENGINEER & PRIOR TO CONSTRUCTION.  
 3. ALL SECTIONS OF ALUMINUM GRATING SHALL BE REMOVABLE EXCEPT THOSE SECTIONS UNDER THE STAIRS & 18" DISCHARGE VALVE.  
 4. FLYBT LEVEL REGULATORS SHALL BE SET TO START AND STOP THE PUMP AT A DISTANCE FROM THE BOTTOM OF THE WELL 12 FEET AND 8 FEET RESPECTIVELY.



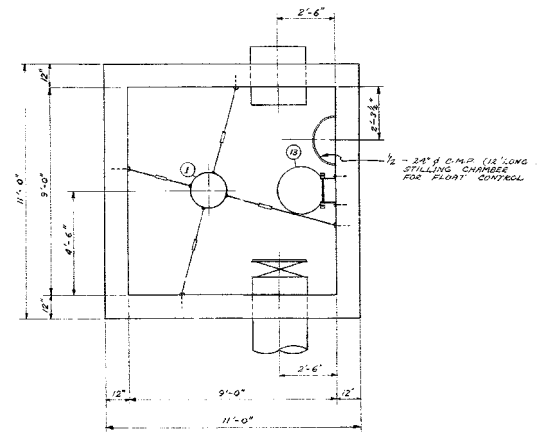
SEC. A-A



SEC. B-B



SEC. C-C  
UPPER DECK



SEC. D-D

► SUPPLIED BY CORPORATION

**LIST OF MATERIALS**

NO.	DESCRIPTION	SIZE	QUANTITY	SEE DETAIL ON DWG. NO.	NO.	DESCRIPTION	SIZE	QUANTITY	SEE DETAIL ON DWG. NO.
1	VERTICAL LIFT PUMP	18"	1		9	18" STEEL WIRE - ONE END MACHINED FOR VICTAULIC	10'-0" L.	1	
2	24" CONG. PIPE - FLANGED ONE END		1		10	18" STYLE #44 VICTAULIC COUPLING		1	
3	24" BUTTERFLY VALVE - FLANGE TO VICTAULIC		1		11	18" BUTTERFLY VALVE - FLANGE TO VICTAULIC		1	
4	24" STYLE #44 VICTAULIC COUPLING		1		12	STD. ALUMINUM STAIRS @ 45° 3/4" PIPE HANDRAIL	2'-6" WIDE	1	
5	24" VICTAULIC CAP (NOT STANDARD ITEM)		1		13	STD. METRO WATERWORKS SAFETY LADDER	20'-6" L.	1	A-909
6	3/4" 1" HOLE IN CENTRE TAPPED & PLUGGED		1		14	3/8" 6" DIA TOEYE GALV. TURNBUCKLE & WIRE ROPE SLING TO SUIT ATTACHED TO EYE BOLTS ON PIPE FLANGE & WALL		1	
7	24" CONG. PIPE - FLANGE TO BELL	2'-6" LONG	1		15	IRVING ALUM. GRATING TYPE AA - 2" x 3/4"	2'-0" MAX. DIM.	1	SEE NOTE
8	PLYWOOD PLUG		1		16	FLYBT LEVEL REGULATOR TYPE EXP-10		2	SEE NOTE
9	24" BLIND FLANGE 3/4" 1" HOLE IN CENTRE TAPPED & PLUGGED		1		17	CABLE TRAY FOR FLYBT CONTROLS		1	
18	1" EYE BOLTS WELDED TO STEM (BOTH SIDES)		2						



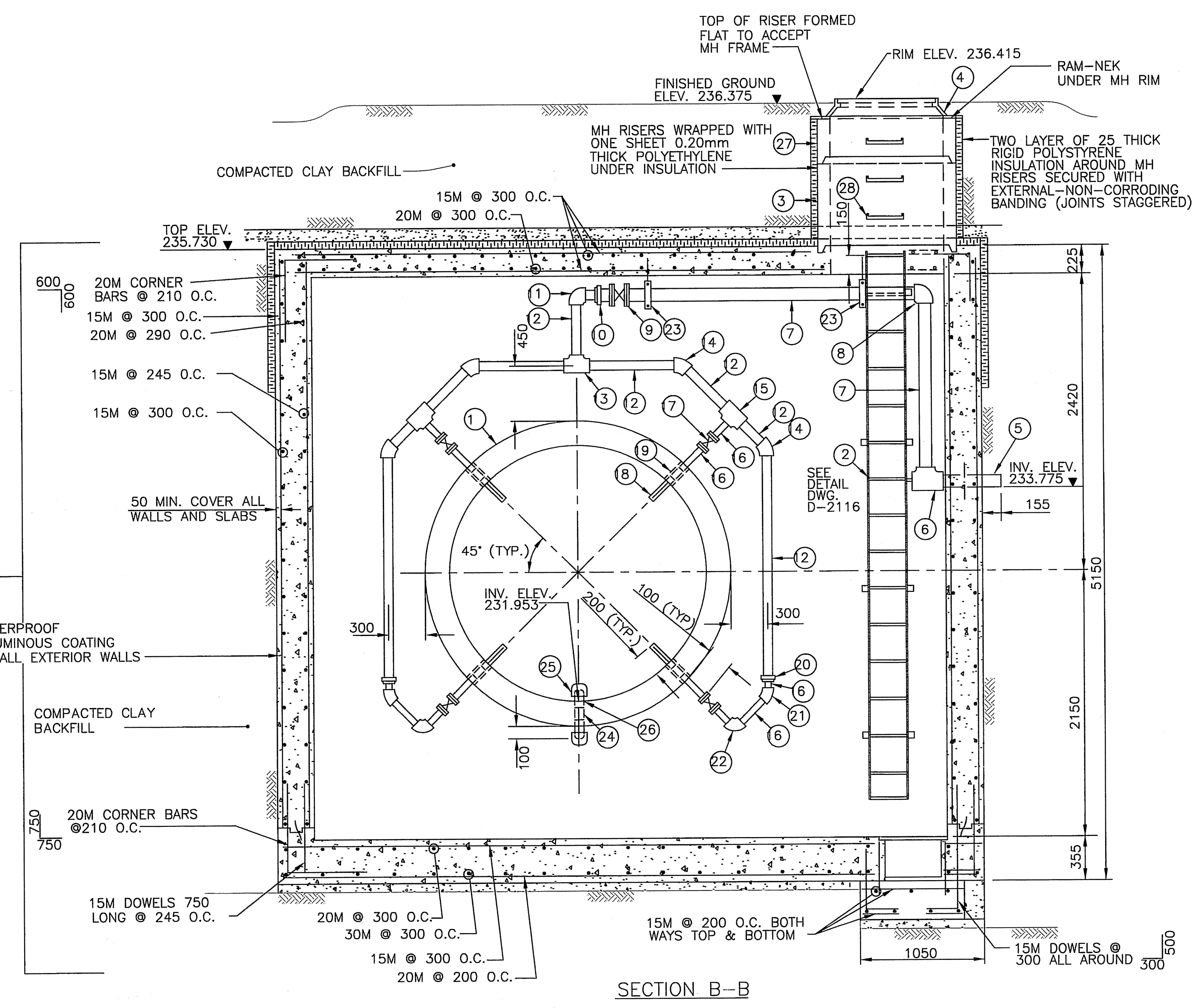
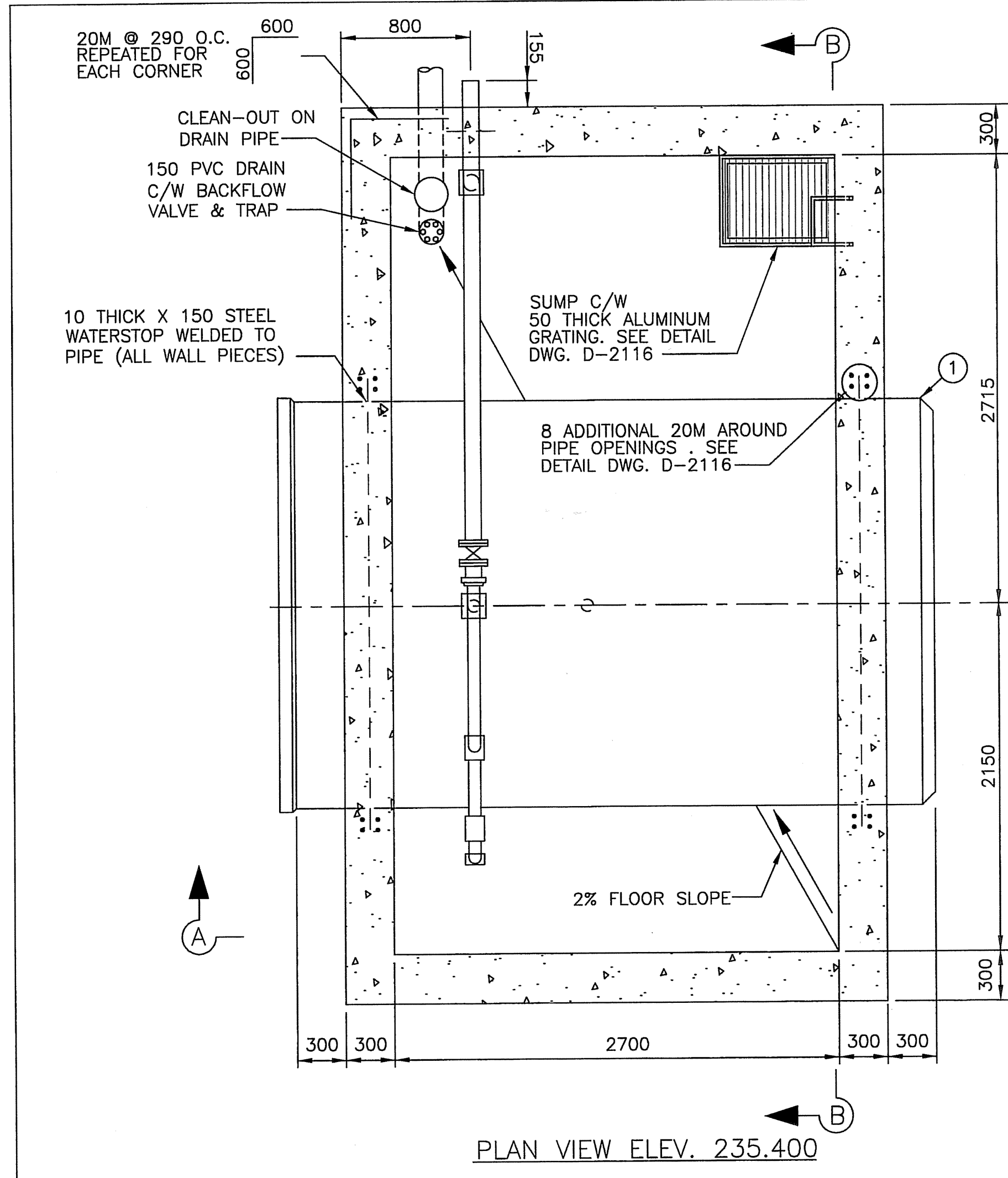
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG  
**WATERWORKS & WASTE DISPOSAL DIVISION**  
 A. PENMAN - DIRECTOR

**DEACON RESERVOIR**  
 STAGE I  
**DRAINAGE PUMPING STATION**

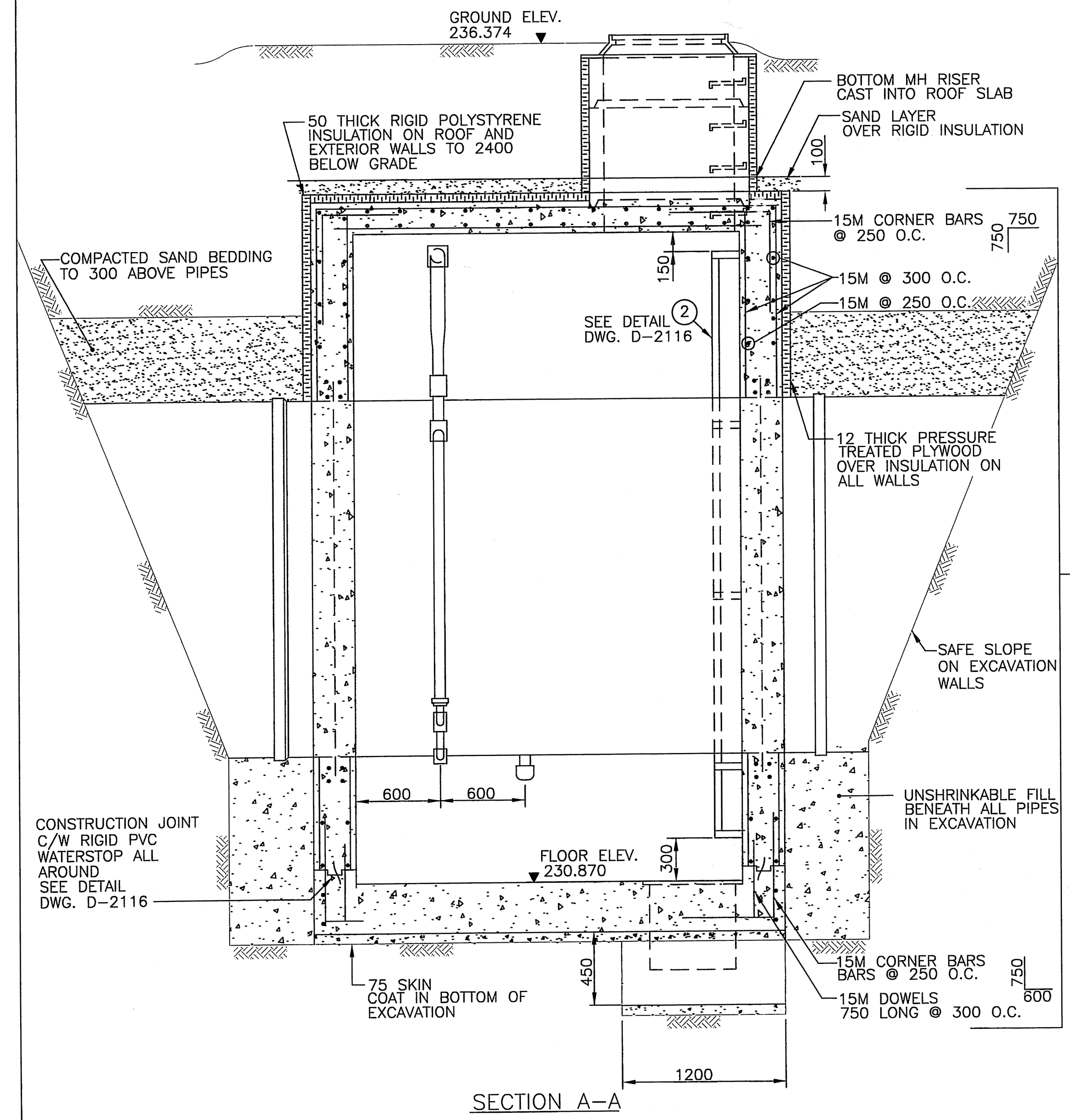
REVIEWED & PLAN CHECKED  
 DESIGNED BY  
 APPROVED AS SHOWN  
 DATE: APR. 1977

SCALE: 1/8" = 1'-0"  
 DRAWING NO. **D-1233**

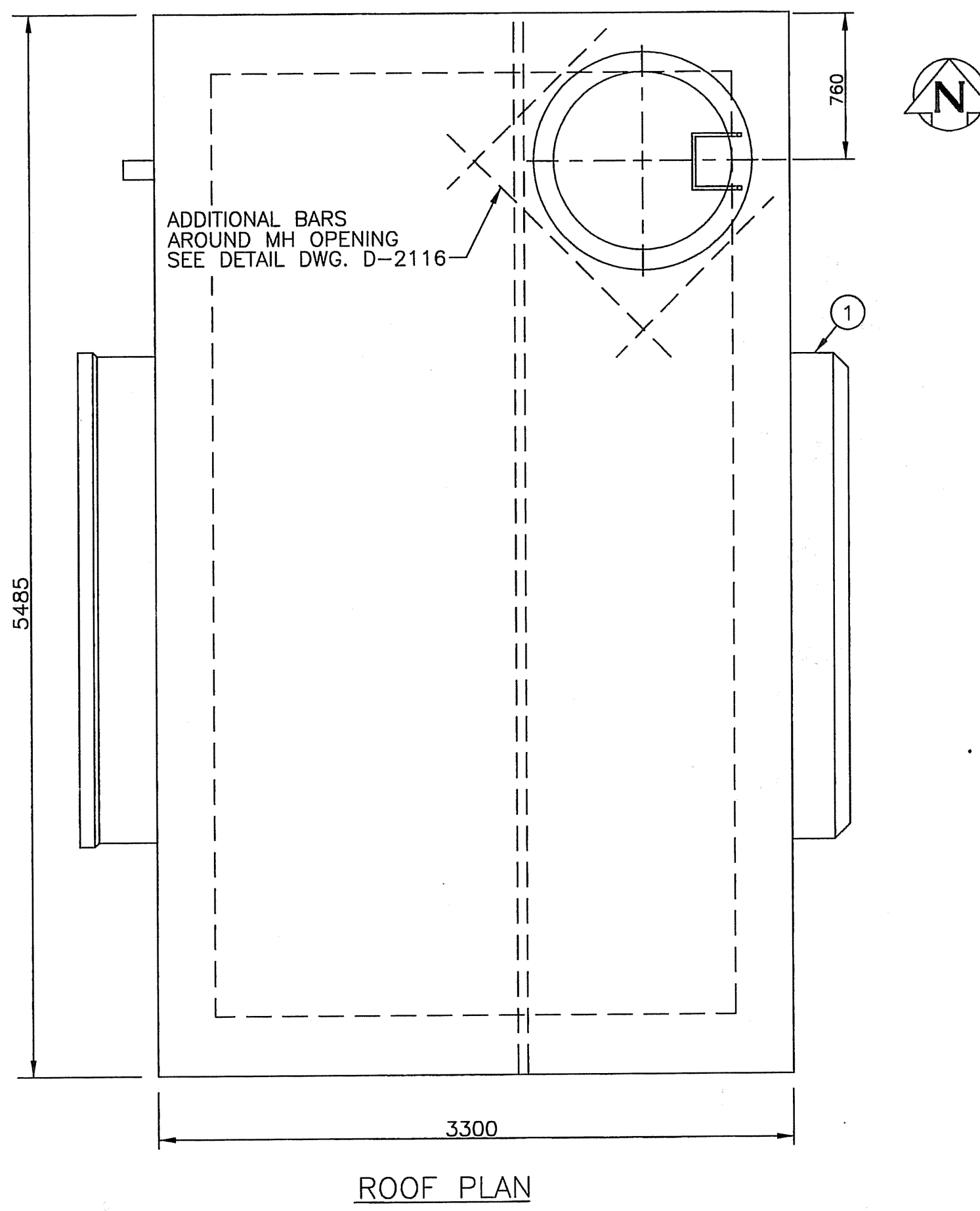




SECTION B-B



SECTION A-A

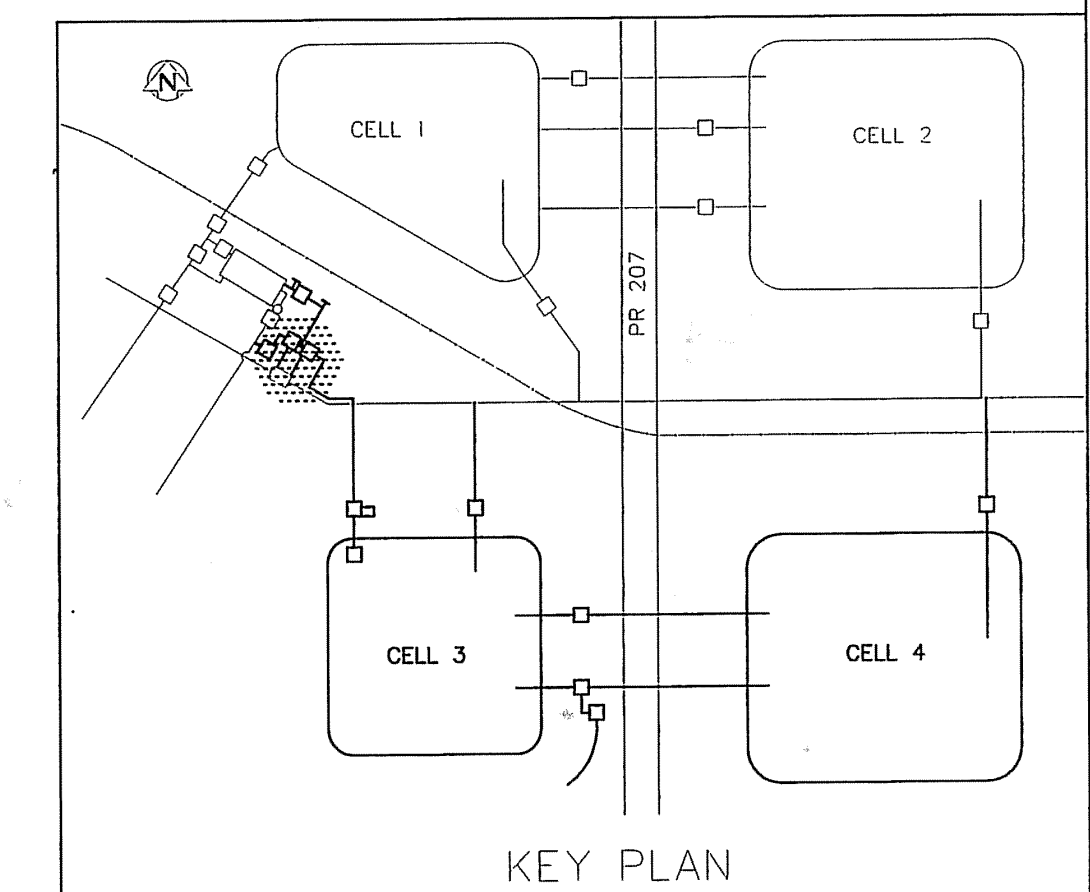


ROOF PLAN

LIST OF MATERIALS			
NO.	DESCRIPTION	LENGTH	QUANTITY
1.	2100# AWWA C301 PRESTRESSED CONCRETE PRESSURE PIPE C/W WALL FLANGES AND THREADED FITTINGS (BELL & SPIGOT)	3900	1
2.	FABRICATED REMOVABLE GALVANIZED STEEL LADDER (RUNGS @ 300 O.C.)	4420	1
3.	900# ASTM C76 CLASS II PRECAST RISER SECTION	250	1
4.	750# TITAN FOUNDRY MH FRAME AND SOLID COVER	-	1
5.	100# SCHEDULE 80 PVC WALL FLANGE (SPIGOTXSPIGOT)	610	1
6.	SCHEDULE 80 PVC 100# X 100# X 100# TEE C/W PLUG	-	1
7.	100# SCHEDULE 80 PVC PIPE	AS REQ'D	-
8.	100# SCHEDULE 80 PVC 90° ELBOW (SOCKET X SOCKET)	-	1
9.	100# SAFE BLOCK TRUE UNION PVC BALL VALVE (SOCKET X SOCKET)	328	1
10.	100# X 75# SCHEDULE 80 PVC REDUCER COUPLING (SOCKET X SOCKET)	-	1
11.	75# SCHEDULE 80 PVC 90° ELBOW (SOCKET X SOCKET)	-	1
12.	75# SCHEDULE 80 PVC PIPE	AS REQ'D	-
13.	75# X 75# X 75# SCHEDULE 80 PVC TEE (SOCKET X SOCKET X SOCKET)	-	1
14.	75# SCHEDULE 80 PVC 45° ELBOW (SOCKET X SOCKET)	-	4
15.	75#X75#X50# SCHEDULE 80 PVC REDUCER TEE (SOCKET X SOCKET X SOCKET)	-	2
16.	50# SCHEDULE 80 PVC PIPE (MALE IPT X PE)	AS REQ'D	-
17.	50# SAFE BLOCK TRUE UNION PVC BALL VALVE (SOCKET X SOCKET)	203	4
18.	50# SCHEDULE 80 PVC PIPE (MALE IPT X PE)	200	4
19.	50# SCHEDULE 80 STEEL COUPLING WELDED TO STEEL PIPE CYLINDER (FEMALE IPT X FEMALE IPT)	200	4
20.	75# X 50# SCHEDULE 80 PVC REDUCER COUPLING (SOCKET X SOCKET)	-	2
21.	50# SCHEDULE 80 PVC 45° ELBOW (SOCKET X SOCKET)	-	2
22.	50# SCHEDULE 80 PVC 90° ELBOW (SOCKET X SOCKET)	-	2
23.	GALVANIZED PIPE SUPPORT	-	2
24.	75# SCHEDULE 80 STEEL COUPLING WELDED TO STEEL PIPE CYLINDER (FEMALE IPT X FEMALE IPT)	200	1
25.	75# SCHEDULE 80 PVC CAP (FEMALE IPT)	-	2
26.	75# SCHEDULE 80 PVC NIPPLE (MALE IPT X MALE IPT)	150	2
27.	900# ASTM C76 CLASS II PRECAST CONCRETE MANHOLE RISER SECTION C/W MANHOLE STEP	300	2
28.	STANDARD CITY OF WINNIPEG 19# MANHOLE STEPS @ 300 O.C.	-	AS REQ'D

- NOTES:
- SEE DRAWING D-2074 FOR CHAMBER LOCATION
  - ALL UNIDENTIFIED NUTS, BOLTS AND ANCHORS ARE TYPE 316 STAINLESS STEEL
  - ALL ALUMINUM MATERIAL ARE 6351-T6
  - ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE TREATED WITH TWO COATS OF ALKALI RESISTANT BITUMINOUS PAINT
  - ALL FLANGE GASKETS ARE 3 THICK FULL FACED EPDM OR VITON

**AS-CONSTRUCTED**  
*Robert K. Wilton* 01.09.27  
 CONTRACT ADMINISTRATION DRAFTING & GRAPHIC SERVICES DATE  
 WATER AND WASTE DEPARTMENT



KEY PLAN

**METRIC**  
 WHOLE NUMBERS INDICATE MILLIMETRES  
 DECIMALIZED NUMBERS INDICATE METRES

DESIGNED BY	TW	CHECKED BY	TW/KMD
DRAWN BY	TM	APPROVED BY	JEC
HOR. SCALE	1 : 30	RELEASED FOR CONSTRUCTION	
VERTICAL			
NO. REVISIONS		DATE	1995 01 20

ENGINEER'S SEAL  
 ORIGINAL SIGNED BY  
 J. E. COMEAU  
 1995.01.30  
 TENDER 95-2  
 AUTOCADR2000

**THE CITY OF WINNIPEG**  
 WORKS AND OPERATIONS DIVISION  
 WATERWORKS WASTE AND DISPOSAL DEPARTMENT

DEACON RESERVOIR EXPANSION  
 CONSTRUCTION OF CELL 3 AND CELL 4

CELL 3 OUTLET PIPE  
 CHLORINE DIFFUSER CHAMBER  
 PLANS AND SECTIONS

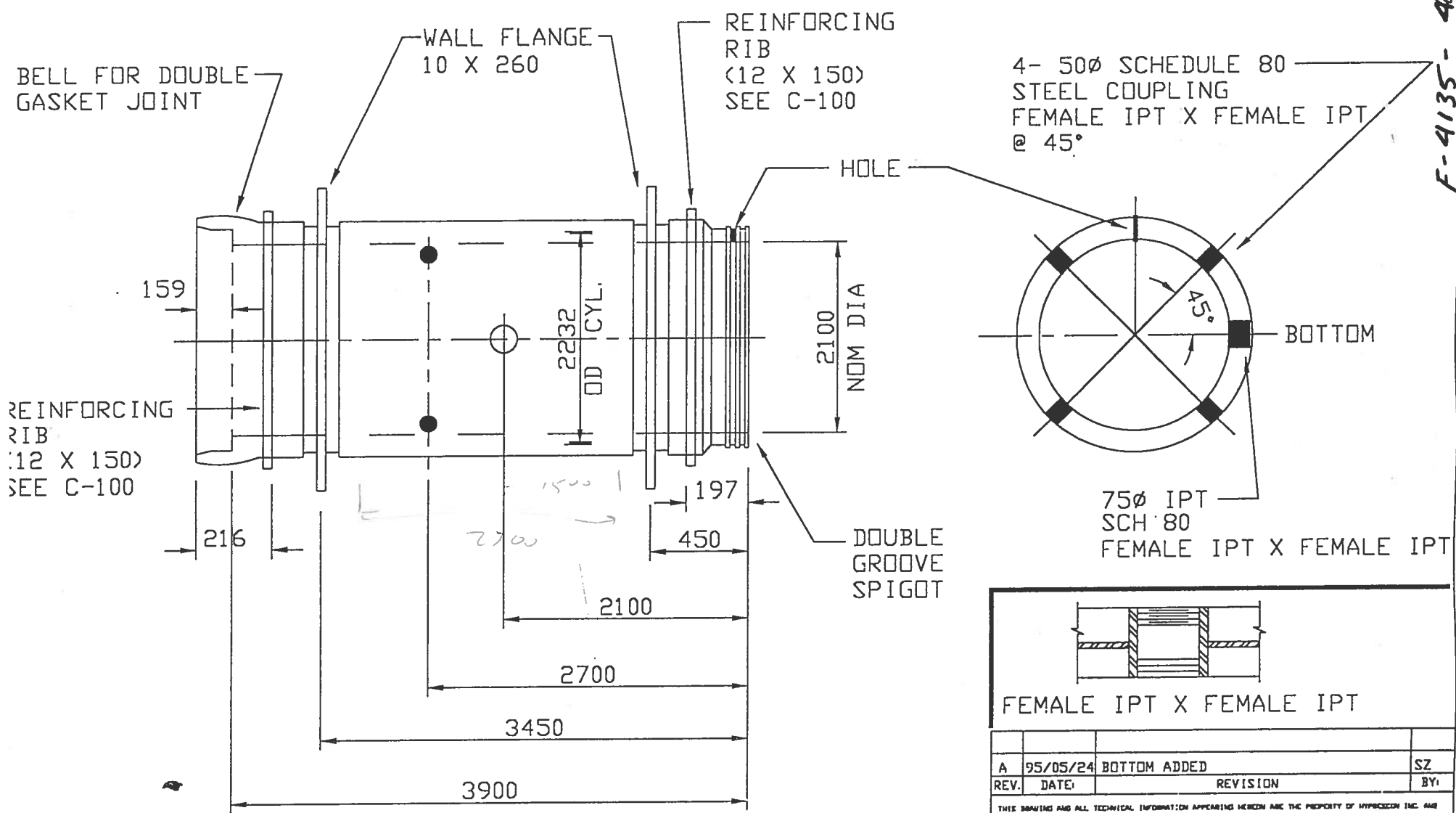
SHEET OF  
 CITY DRAWING NUMBER  
**D-2084**

D-2084



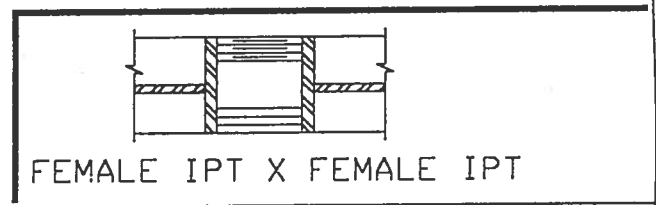


F-4135-404



TYPE 50 CEMENT INSIDE & OUTSIDE

SPECIFICATION : AWWA C301(E)  
 TYPE : \*B\*  
 CLASS/PRESSURE : 350 KPA  
 PLATE THICKNESS : 12  
 WIRE MESH : }  
 WALL THICKNESS : } C-100



REV.	DATE	REVISION	BY
A	95/05/24	BOTTOM ADDED	SZ

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**HYPRESCON** inc.

WINNIPEG - P.D. 95-2  
 DETAIL OF MK: 10

SCALE: NOT TO SCALE		DATE: 95/04/25		
DRAWN	CHECKED	APPROVED	PROJECT	DWG. REV.
SZ	<i>[Signature]</i>	<i>[Signature]</i>	9007-95	C-10 A