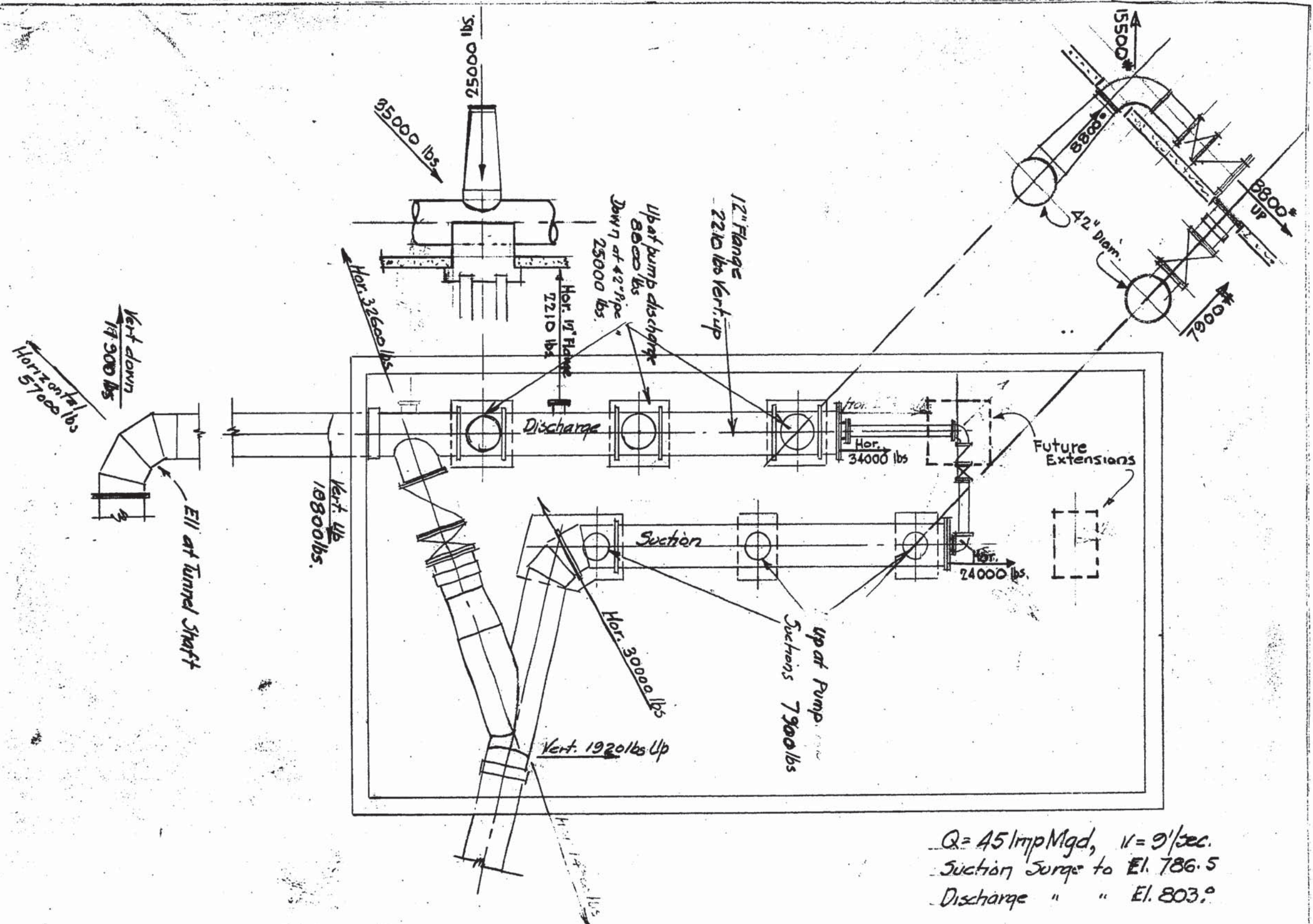


GREATER WINNIPEG WATER DISTRICT  
 PLAN OF PROPOSED PUMPING STATION  
 AT SURGE TANK - ST. BONIFACE

SCALE  
 30 FT = 1 IN.  
 MARCH 15 - 1949

*J. W. Peckham*  
 GENL. MANAGER  
*J. D. Hard*  
 ENGINEER

A.600



$Q = 45 \text{ Imp Mgd}$ ,  $v = 9' \text{ / sec.}$   
 Suction Surge to El. 786.5  
 Discharge " " El. 803.0

A.609

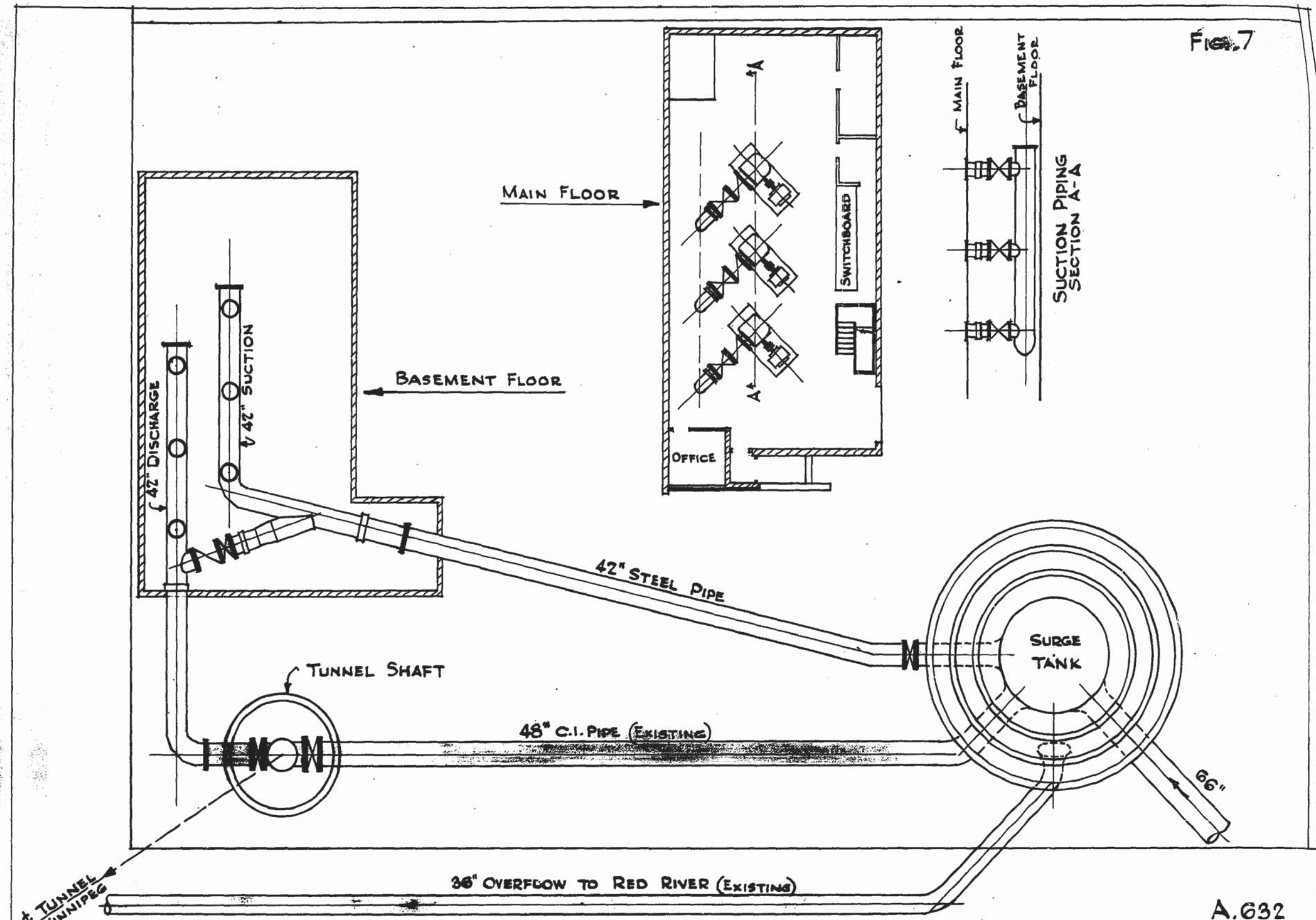
Drawn by J.C.D.T.  
 Traced by \_\_\_\_\_  
 Checked by W.S.  
 Approved by H.S.B.

Revisions  
August 11/49

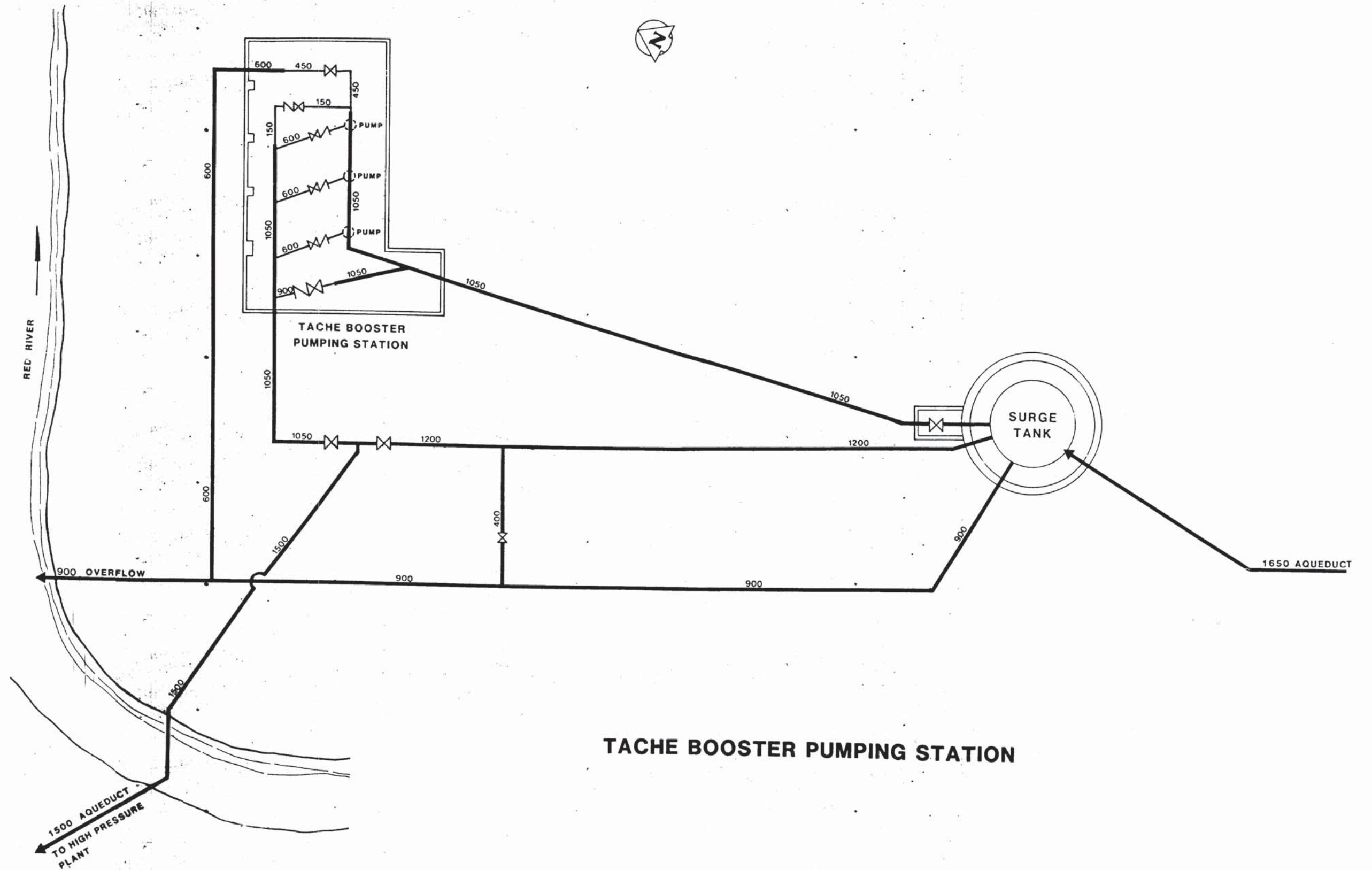
J.P. Sullivan  
 General Manager  
H. D. Shaw  
 Engineer

Greater Winnipeg Water District  
 Reactions of Piping in Pumping Station  
 July 21, 1949  
 Scale 1" = 10'

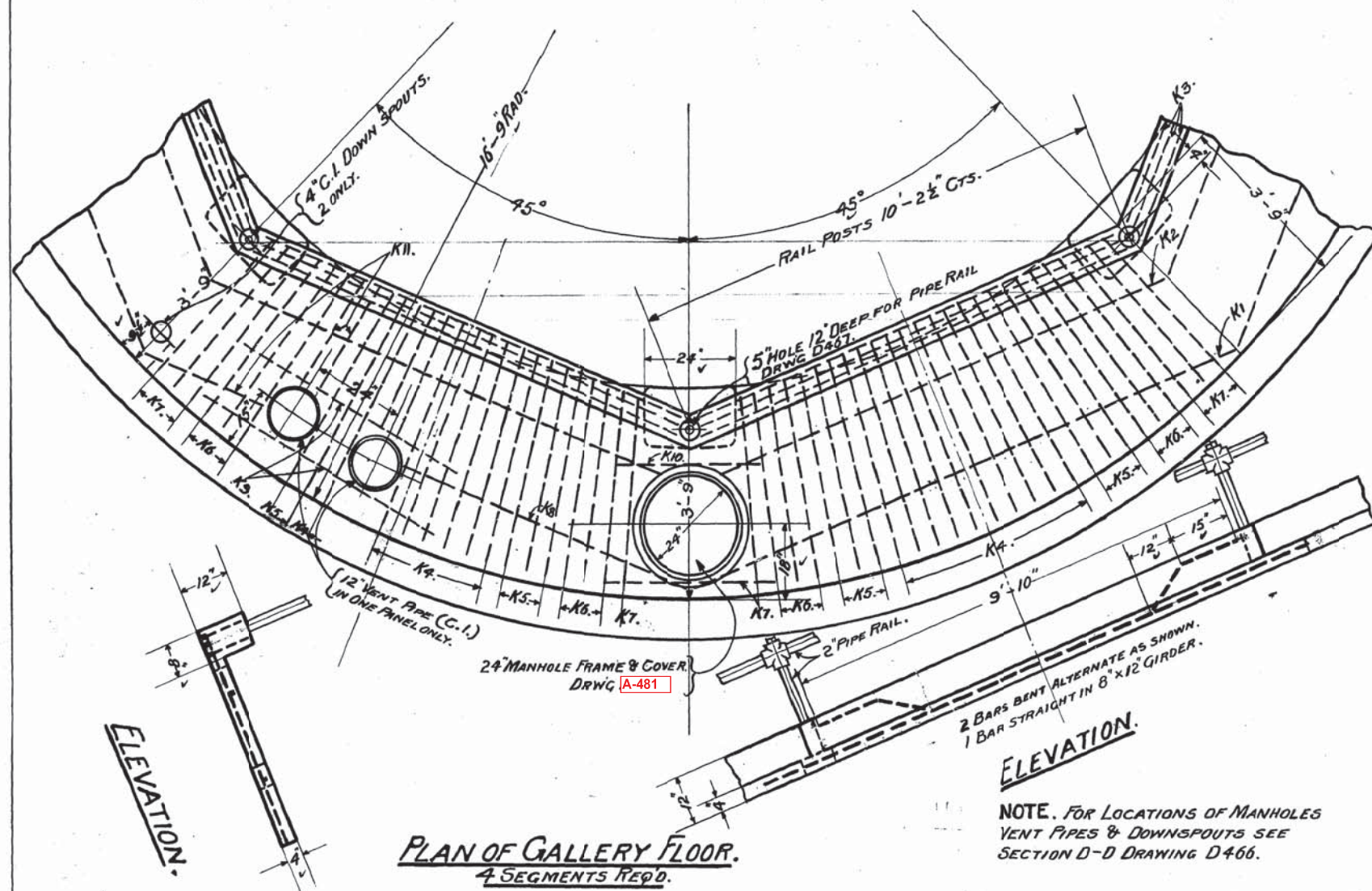
FIG. 7



A.632  
 GREATER WINNIPEG WATER DISTRICT  
 BOOSTER PUMPING STATION - ST. BON.  
 PIPING LAYOUT  
 SCALE 20' = 1"  
 MAY 1951  
*J. S. ...*  
 GENERAL MANAGER



**TACHE BOOSTER PUMPING STATION**



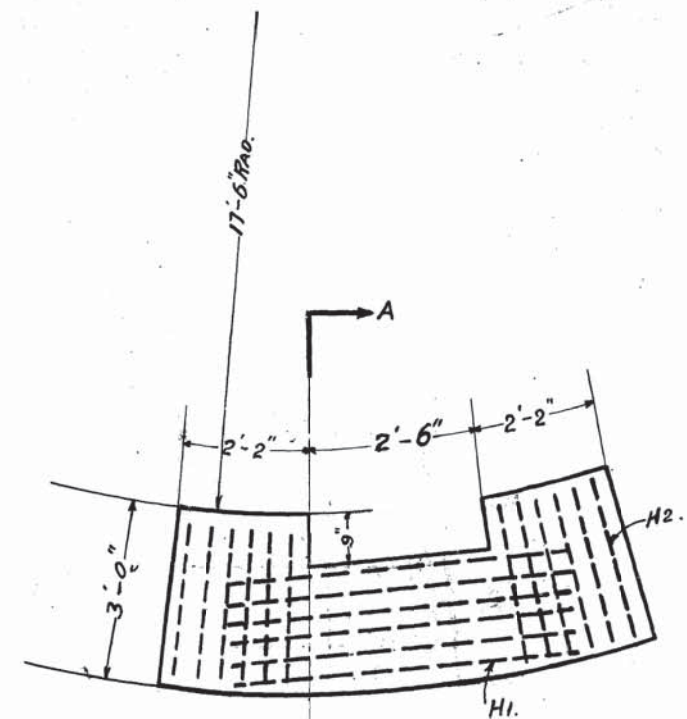
**PLAN OF GALLERY FLOOR.**  
4 SEGMENTS REQ'D.

**REINFORCING STEEL IN GALLERY FLOOR.**

LETTER	No	SIZE	LENGTH	DESCRIPTION.
K1.	7.	5/8"	12'-8"	STRAIGHT.
K2.	8.	"	10'-6"	"
K3.	10.	"	9'-10"	BENT.
K4.	78.	1/2"	4'-5"	STRAIGHT.
K5.	46.	"	4'-3"	"
K6.	48.	"	4'-0"	"
K7.	36.	"	3'-9"	"
K8.	1.	"	6'-6"	"
K9.	2.	"	5'-3"	"
K10.	4.	"	4'-0"	"
K11.	5.	"	2'-6"	"

**ELEVATION.**

NOTE. FOR LOCATIONS OF MANHOLES VENT PIPES & DOWNSPOUTS SEE SECTION D-D DRAWING D466.



**PLAN OF MASONRY WALL SLAB.**  
16 SEGMENTS REQ'D.



**REINFORCING STEEL, MASONRY WALL SLAB.**

LETTER	No	SIZE	LENGTH	DESCRIPTION.
H1.	96.	3/8"	6'-0"	STRAIGHT.
H2.	192.	"	2'-8"	"

DRAWN BY. R.S.  
TRACED BY. R.S.  
CHECKED BY. *[Signature]*

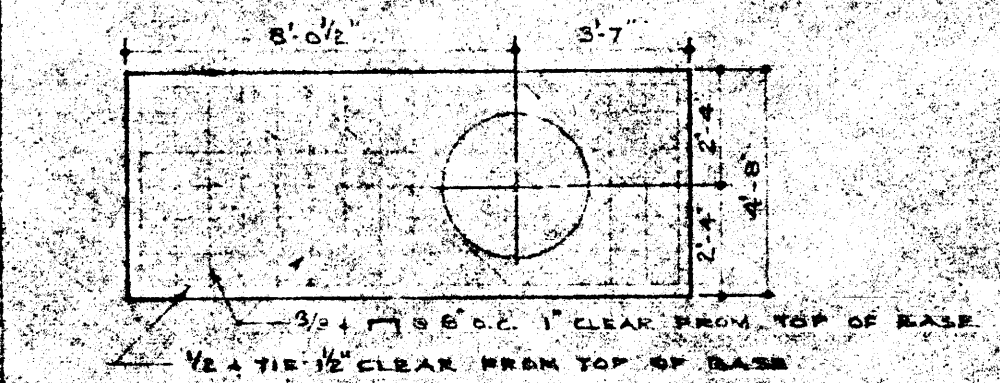
PLAN & BILL OF STEEL FOR MASONRY WALL SLAB REVISED SEPT 9<sup>TH</sup> 1918. R.S.

James. H. Furtes  
CONSULTING ENGINEER.  
*[Signature]*  
W.G. Chae  
CHIEF ENGINEER.

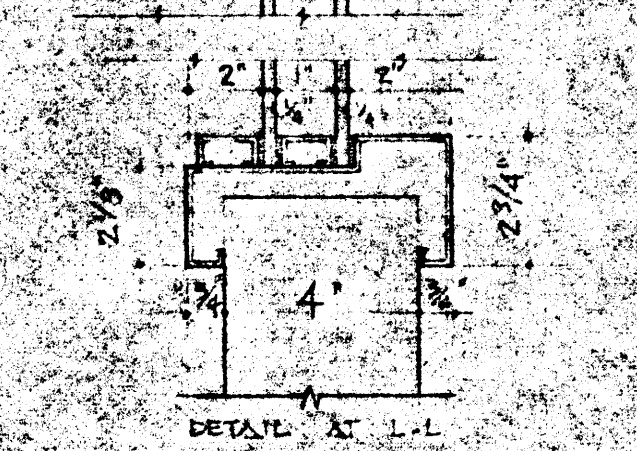
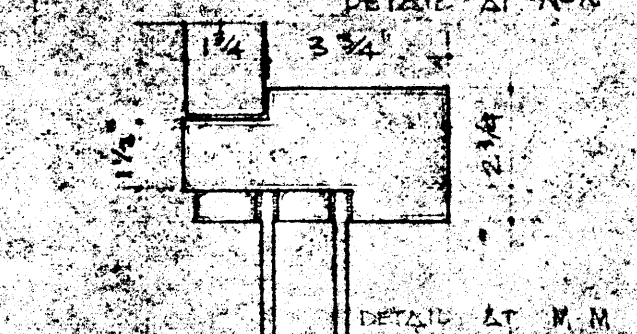
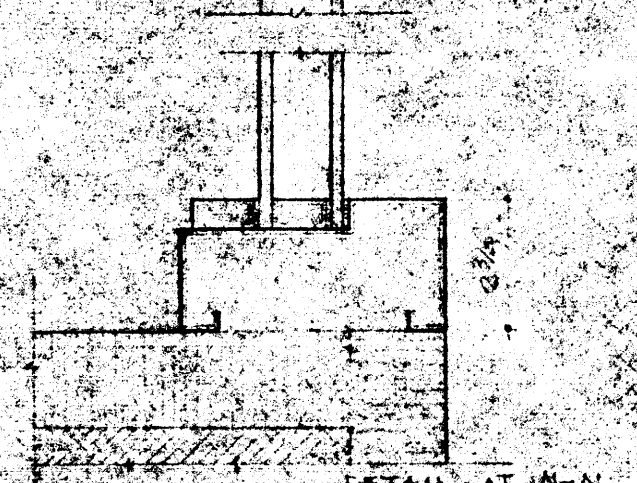
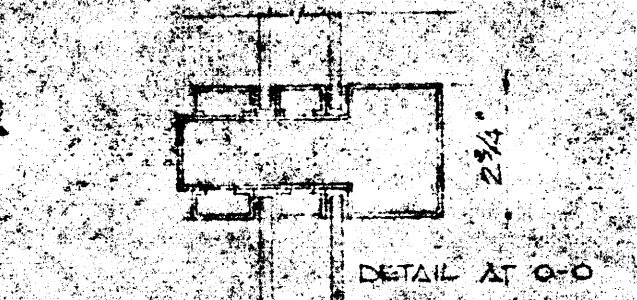
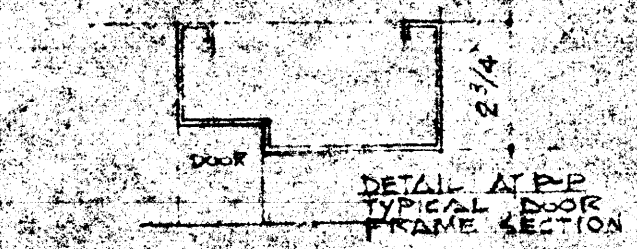
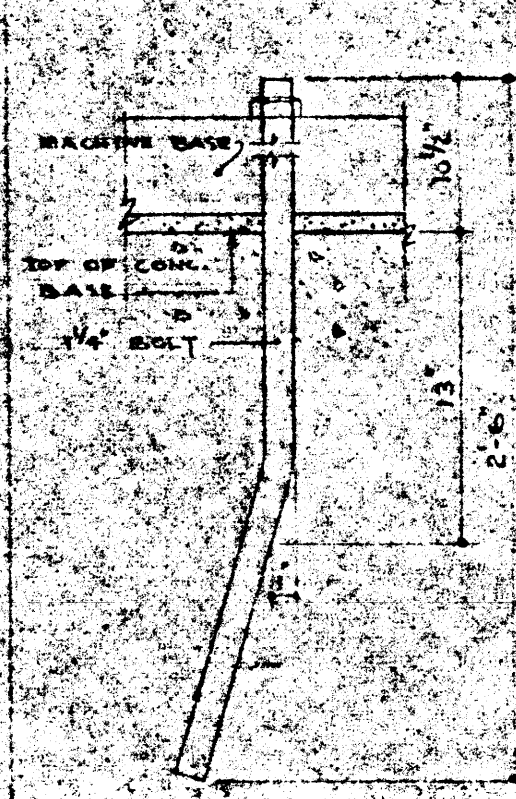
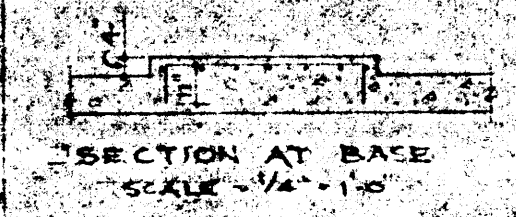
**GREATER WINNIPEG WATER DISTRICT.**  
RED RIVER TUNNEL.  
DETAILS OF FLOOR SLABS FOR PUMP WELL.  
MAR 19<sup>TH</sup> 1918. SCALE 1/2" = 1'-0"



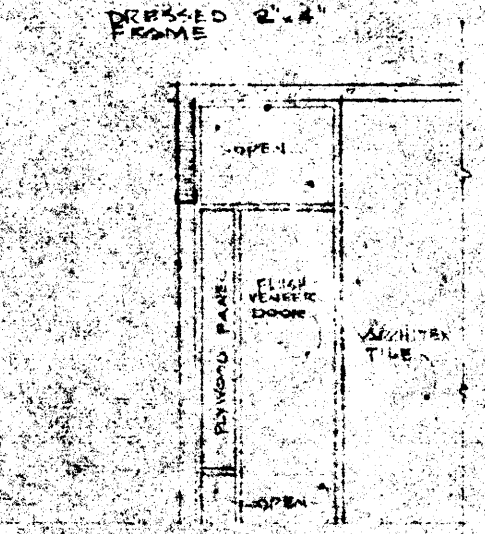
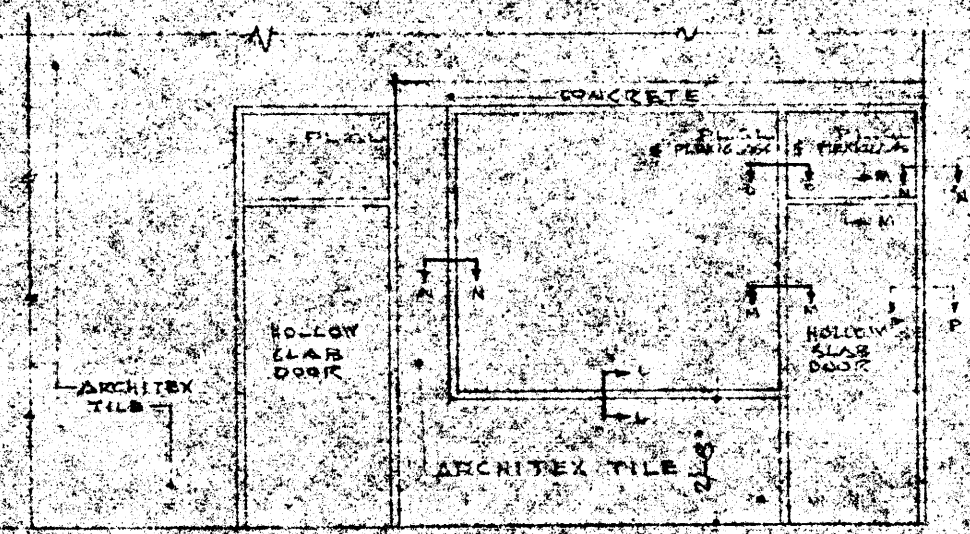
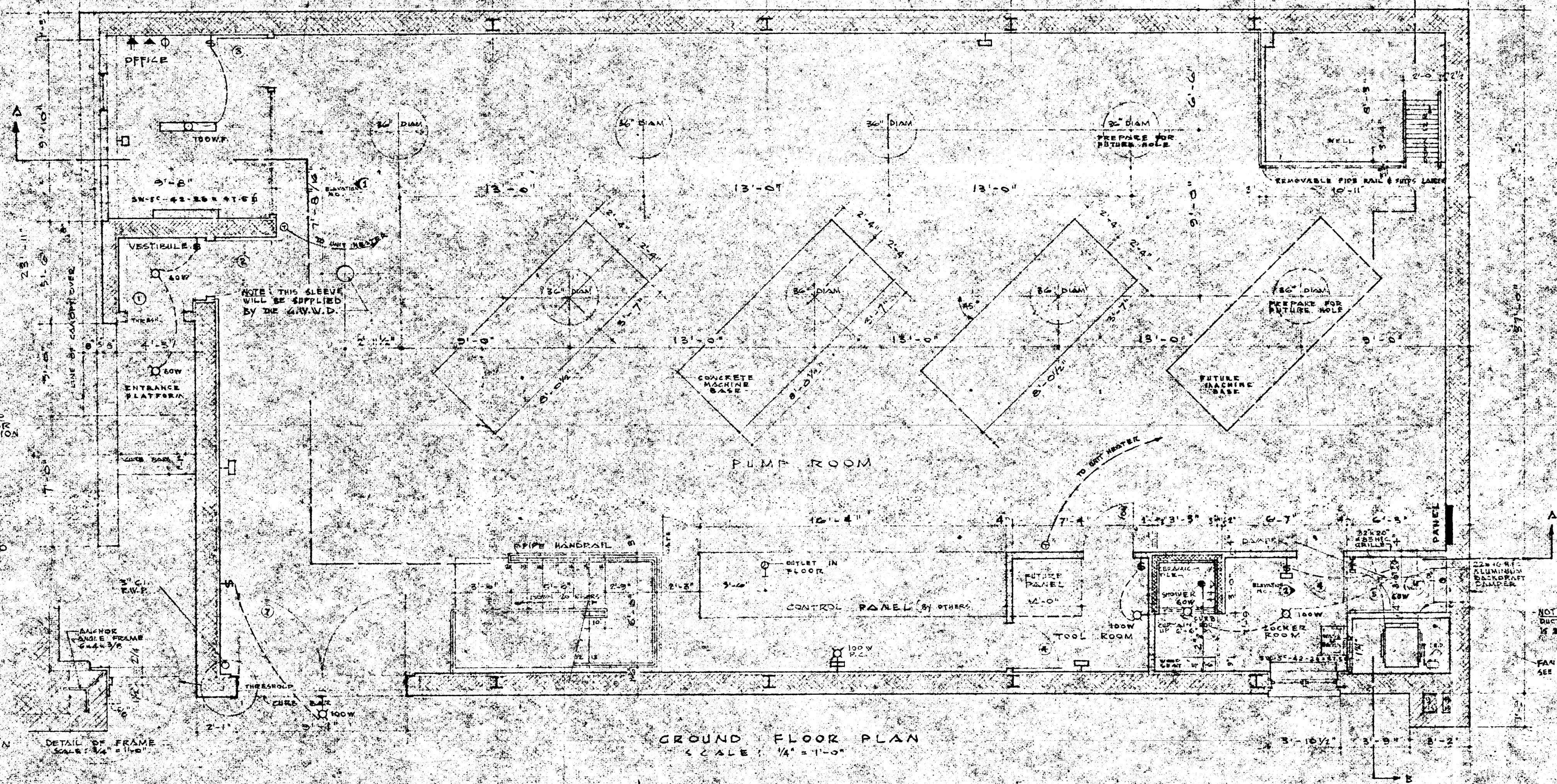
P1219



PLAN VIEW - CONCRETE MACHINE BASE  
 NOTE: SET ANCHOR BOLTS TO TEMPLATE SUPPLIED BY OTHERS.  
 SCALE: 1/4" = 1'-0"



STEEL FRAME DETAILS  
 SCALE: 1/4" = 1'-0"

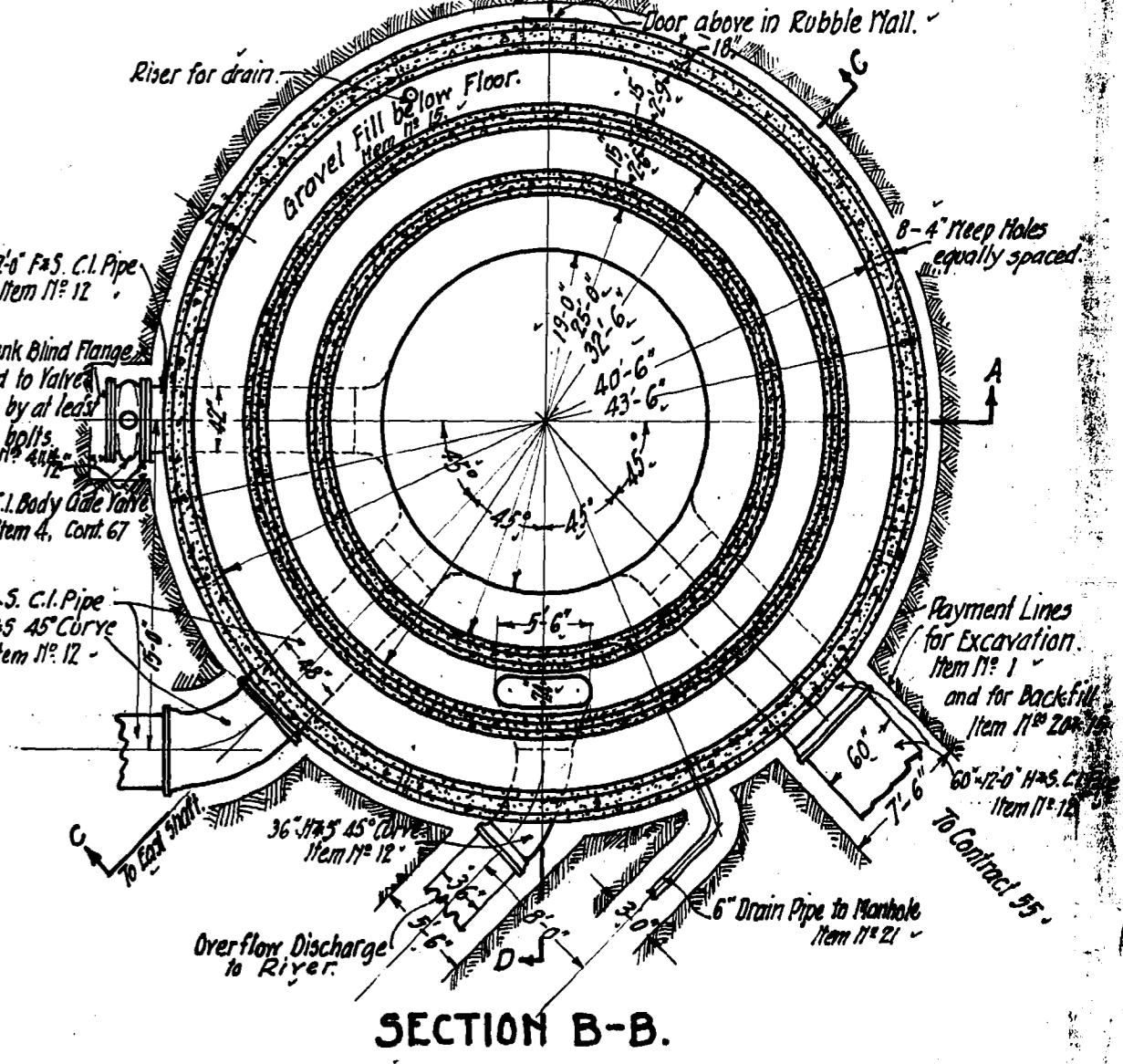
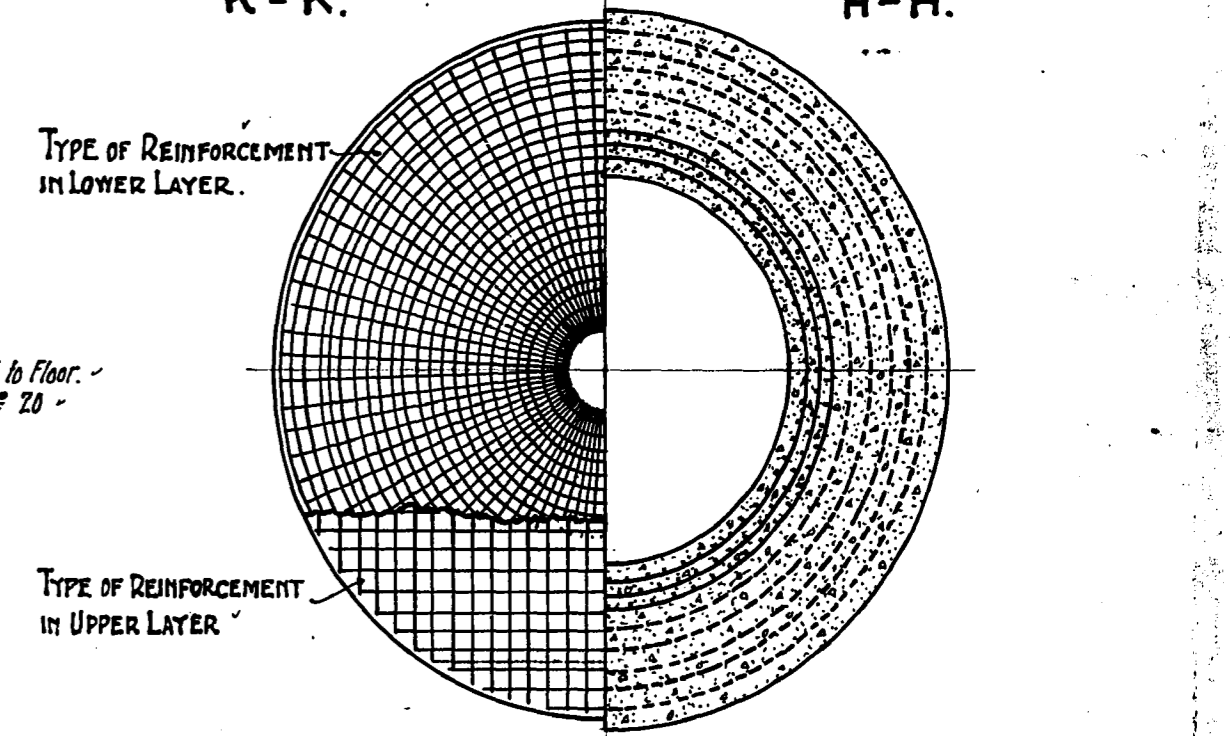
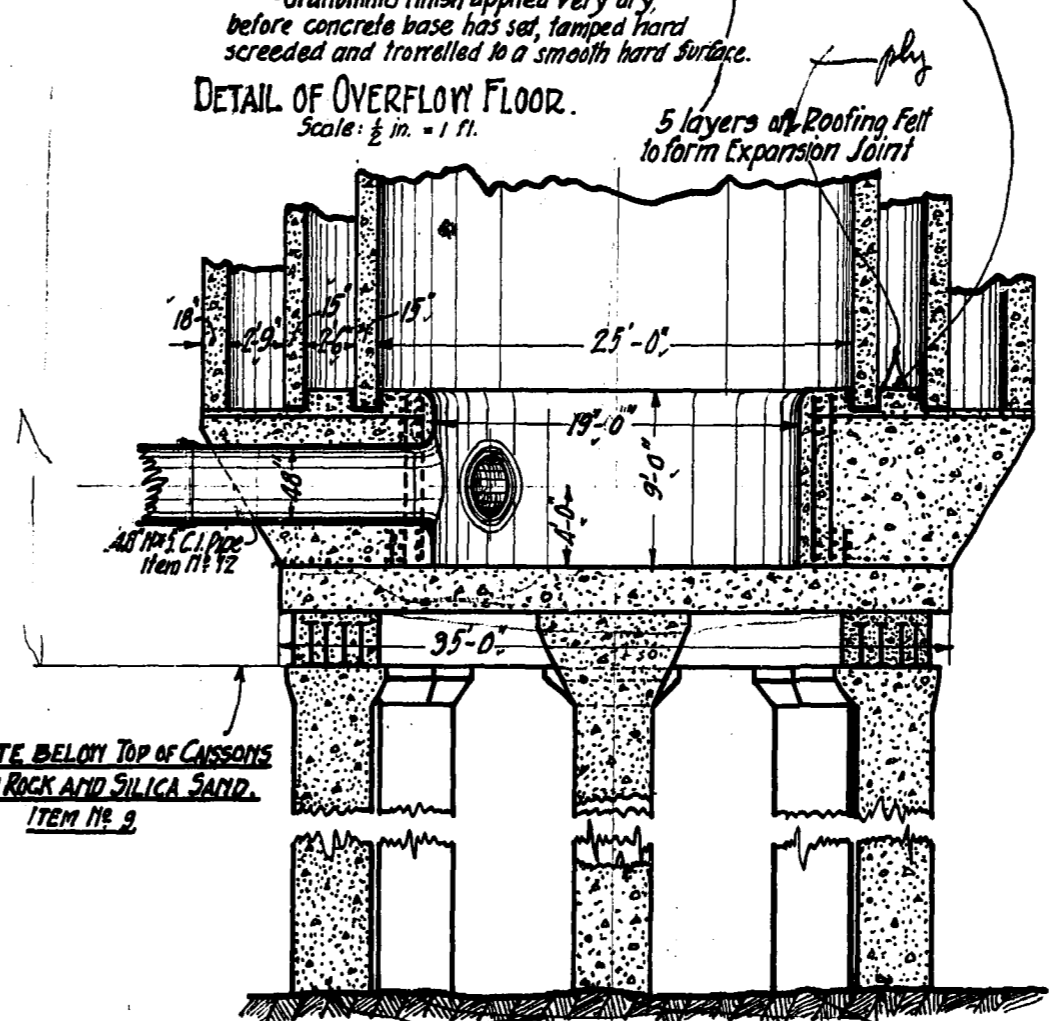
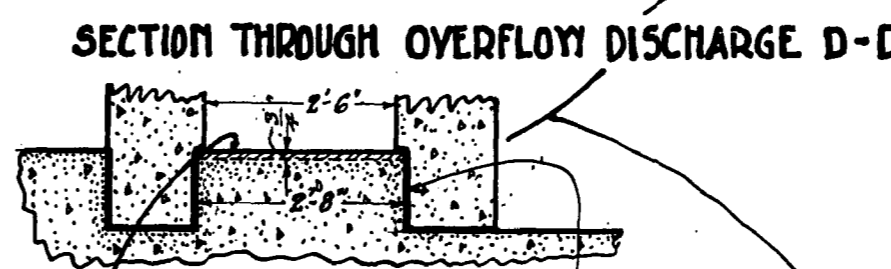
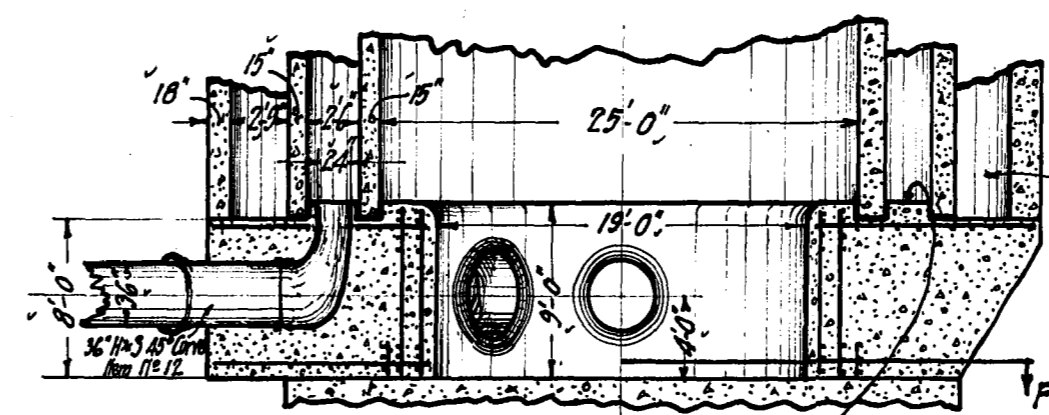
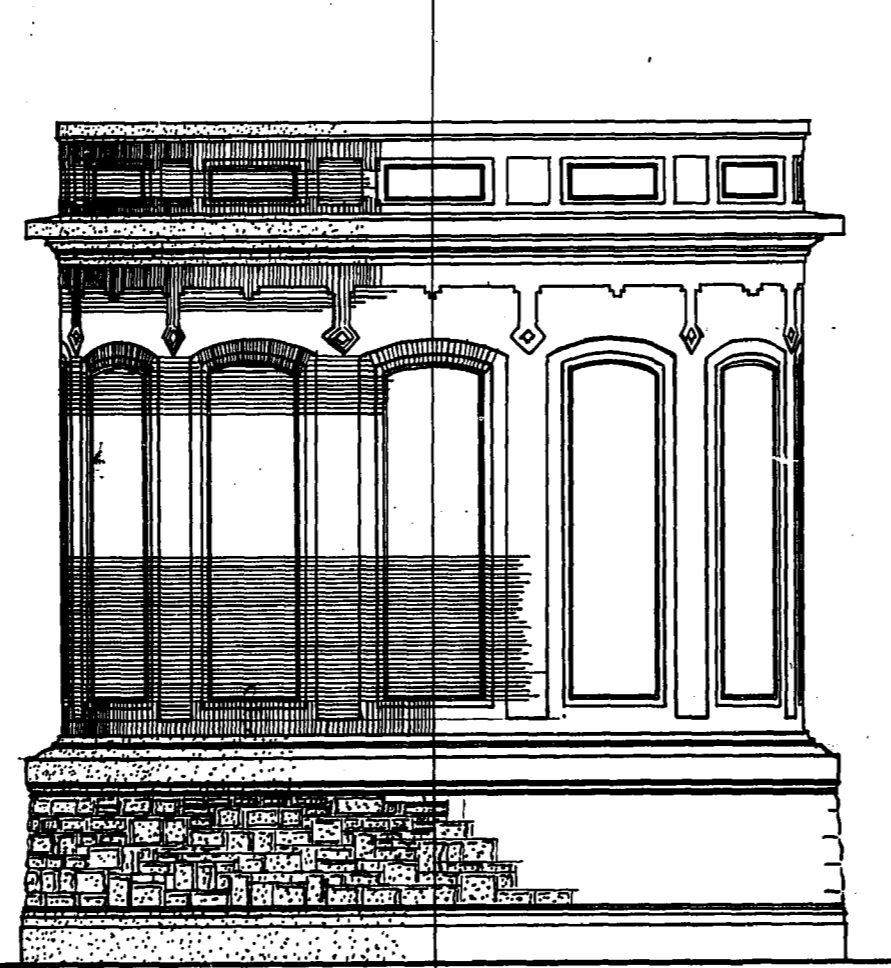
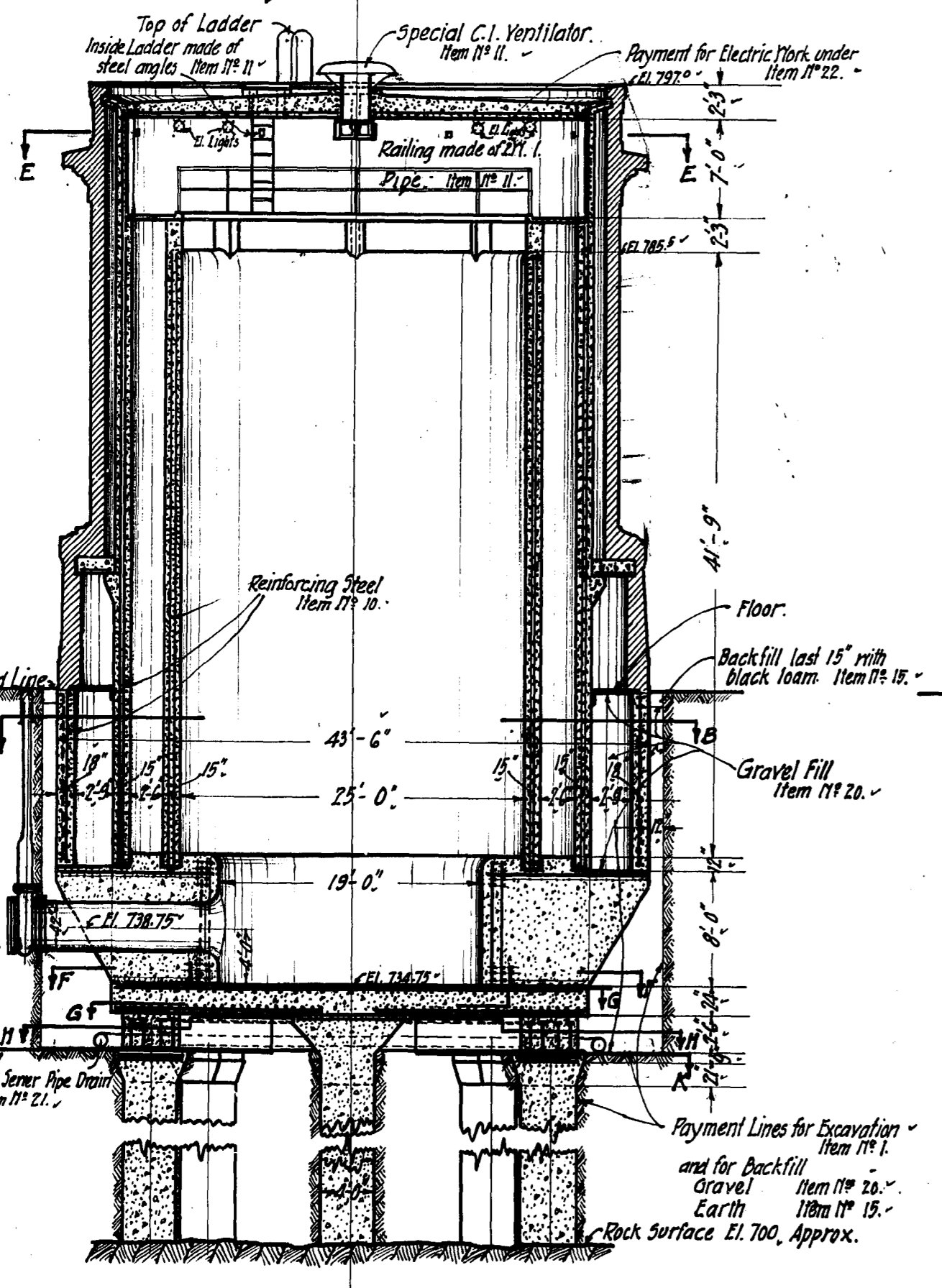
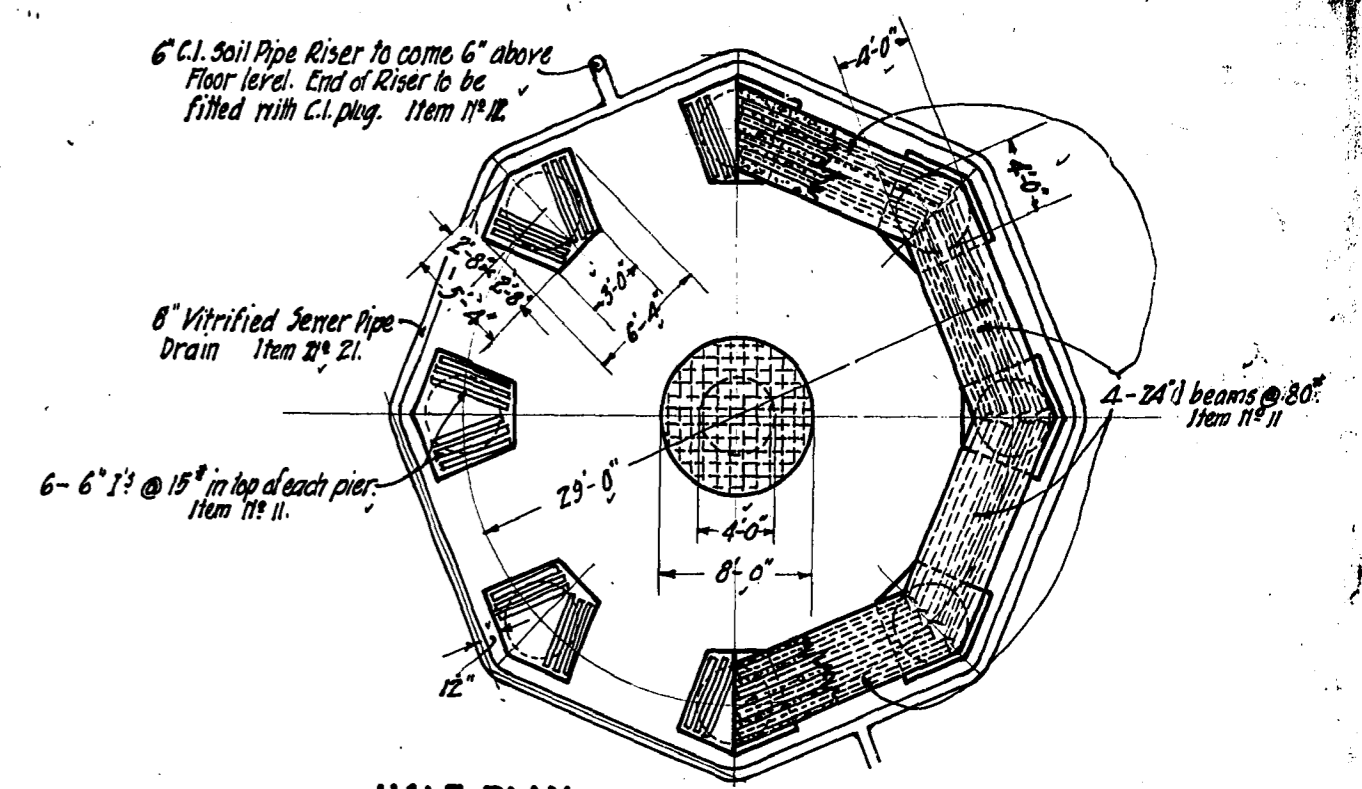
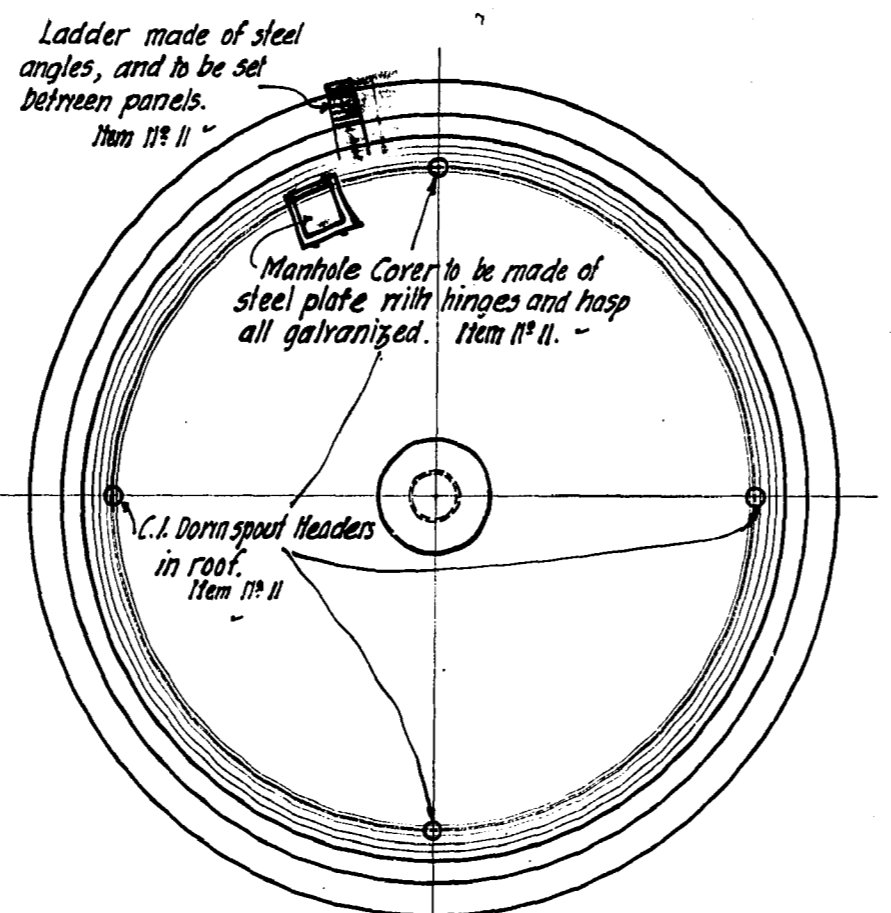
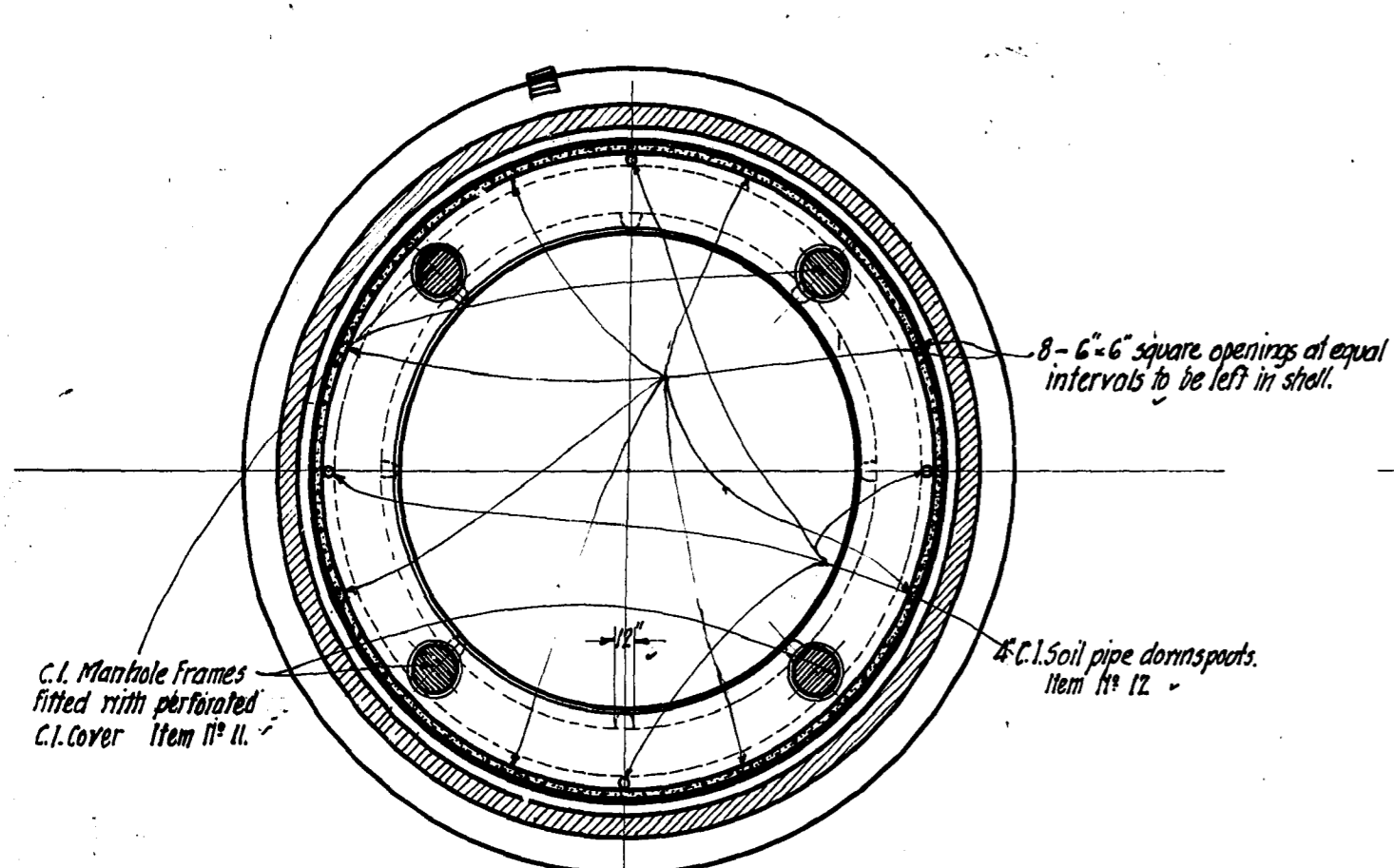


**BOOSTER PUMPING STATION** M.B.  
 COR. TACHEAVE & MESSAGER ST. ST. BONIFACE MAN. C.B.  
 FOR  
**GREATER WINNIPEG WATER DISTRICT** 1/4" = 1'-0"  
**GROUND FLOOR PLAN** AM 4.26.49  
 494 S  
 GREEN BLANCKETER, RUSSELL AND ARTHUR ST.  
 ARCHITECTS AND ENGINEERS  
 WINNIPEG, MANITOBA  
**4**

C-519







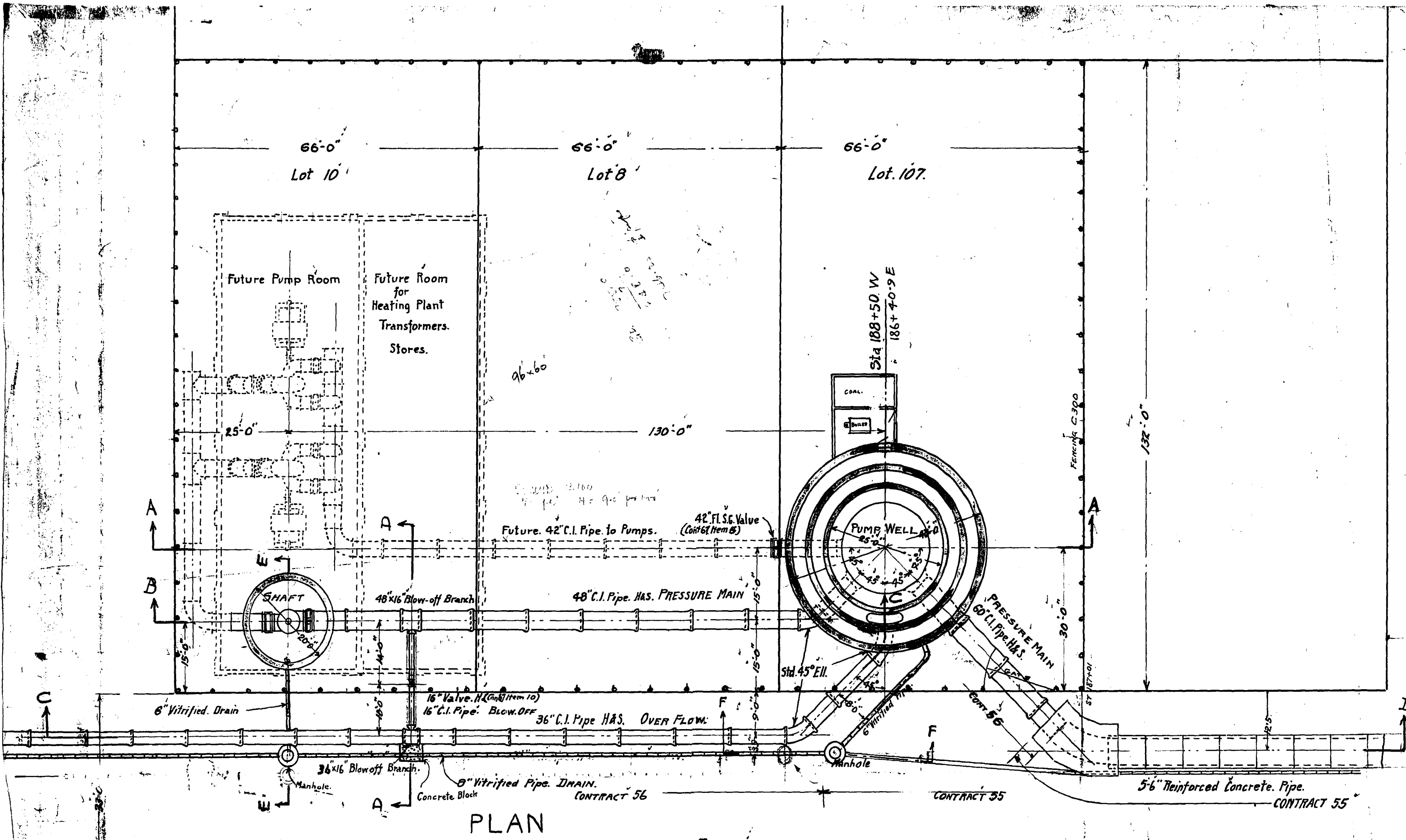
Note: Before placing in the Concrete the outside surface of all Structural Steel, Cast Iron Pipe and Specials shall be thoroughly cleaned of all coating by means of Sand Blast. All exposed ironwork shall be painted with 2 coats Sherwin-Williams Metallastic Black or equivalent.

PLAN & SECTION RED RIVER CROSSING	D 366.
TUNNEL DETAILS	D 434.
EAST SHAFT	D 435.
WEST "	D 436.
PUMP WELL OVERFLOW DISCHARGE.	D 438.
LAYOUT OF PIPING & WELL AT EAST SHAFT	D 439.
OUTSIDE MASONRY SHELL FOR DUMP WELL	D 444.

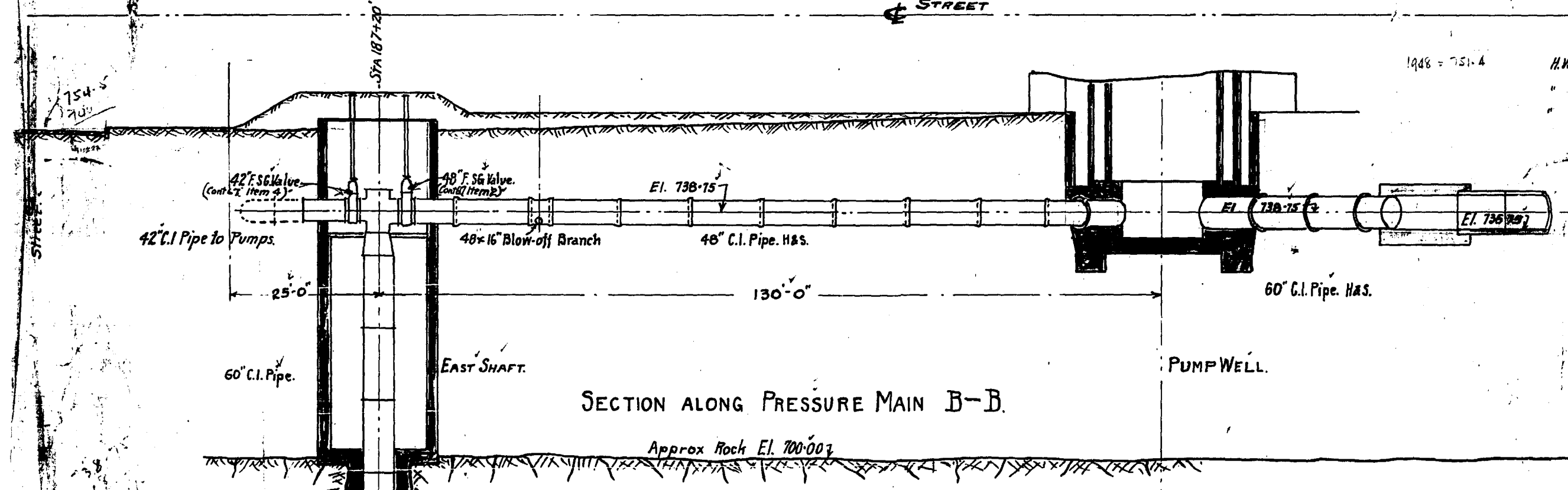
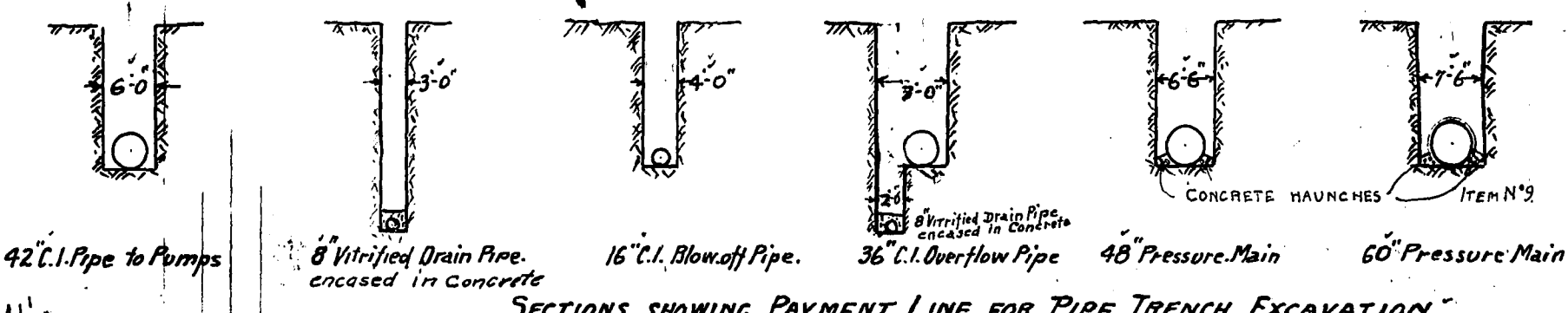
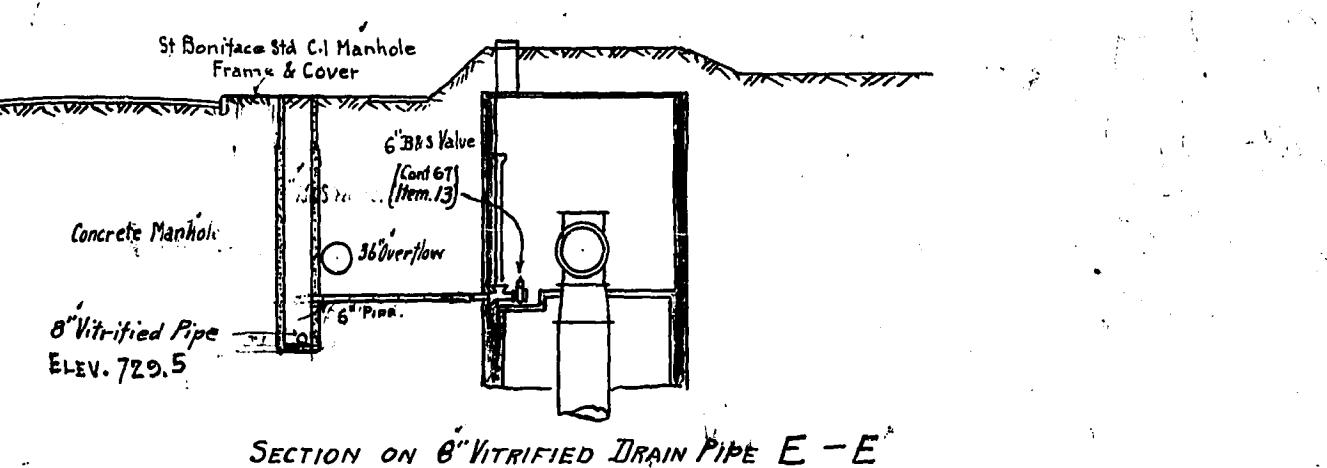
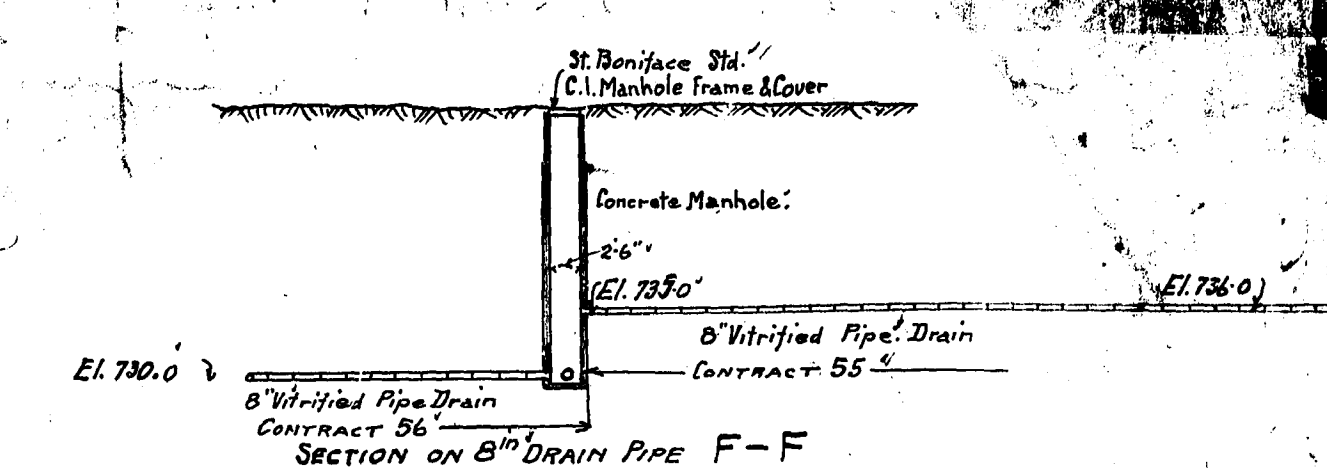
Drawn by: *[Signature]*  
 Traced by: *[Signature]*  
 Checked by: *[Signature]*  
 Approved: *[Signature]*

*[Signature]*  
 Consulting Engineer.  
*[Signature]*  
 Chief Engineer.

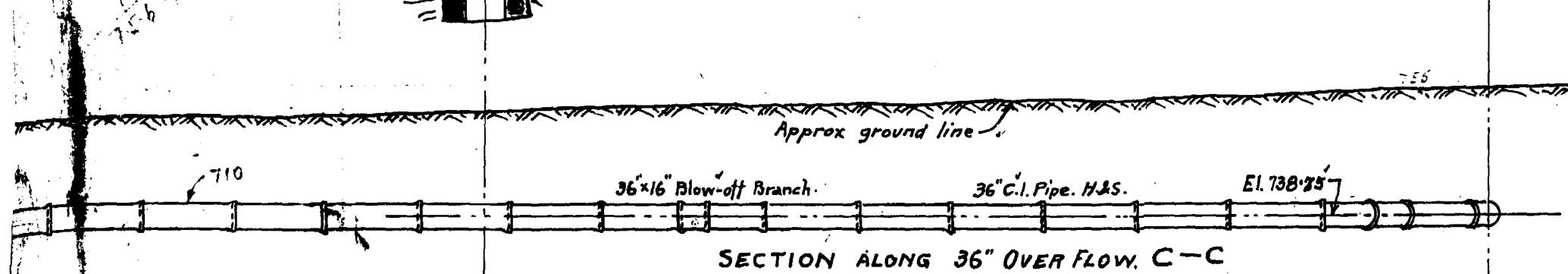
GREATER MINNEAPOLIS WATER DISTRICT.  
 RED RIVER TUNNEL  
 GENERAL DETAILS OF PUMP WELL.  
 Oct. 27<sup>th</sup> 1917. Scale: 1/2" = 1 ft.



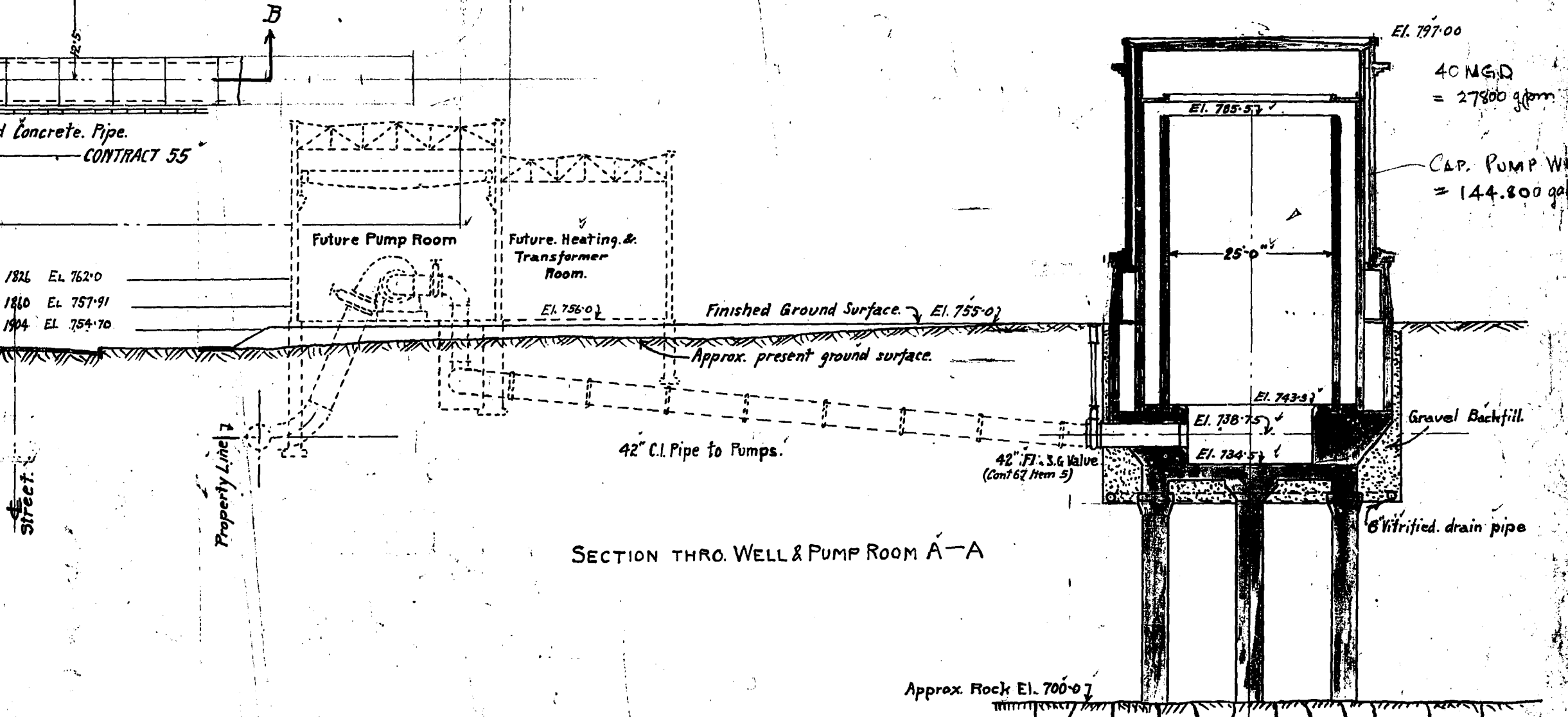
PLAN



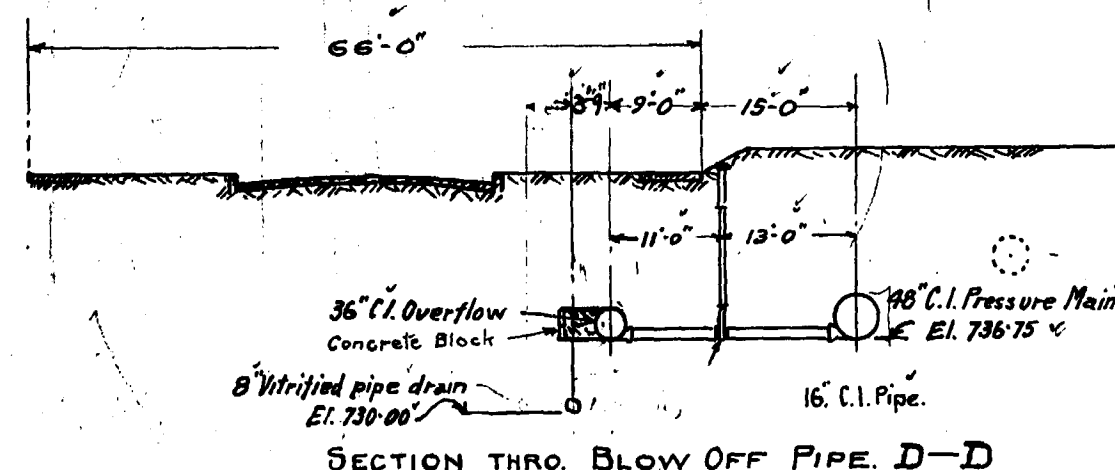
SECTION ALONG PRESSURE MAIN B-B



SECTION ALONG 36\"/>



SECTION THRO. WELL & PUMP ROOM A-A



SECTION THRO. BLOW OFF PIPE D-D

PLAN & SECTION RED RIVER CROSSING	D366
EAST SHAFT	D435
WEST SHAFT	D436
WELL DETAILS	D437
WELL OVERFLOW DISCHARGE	D438

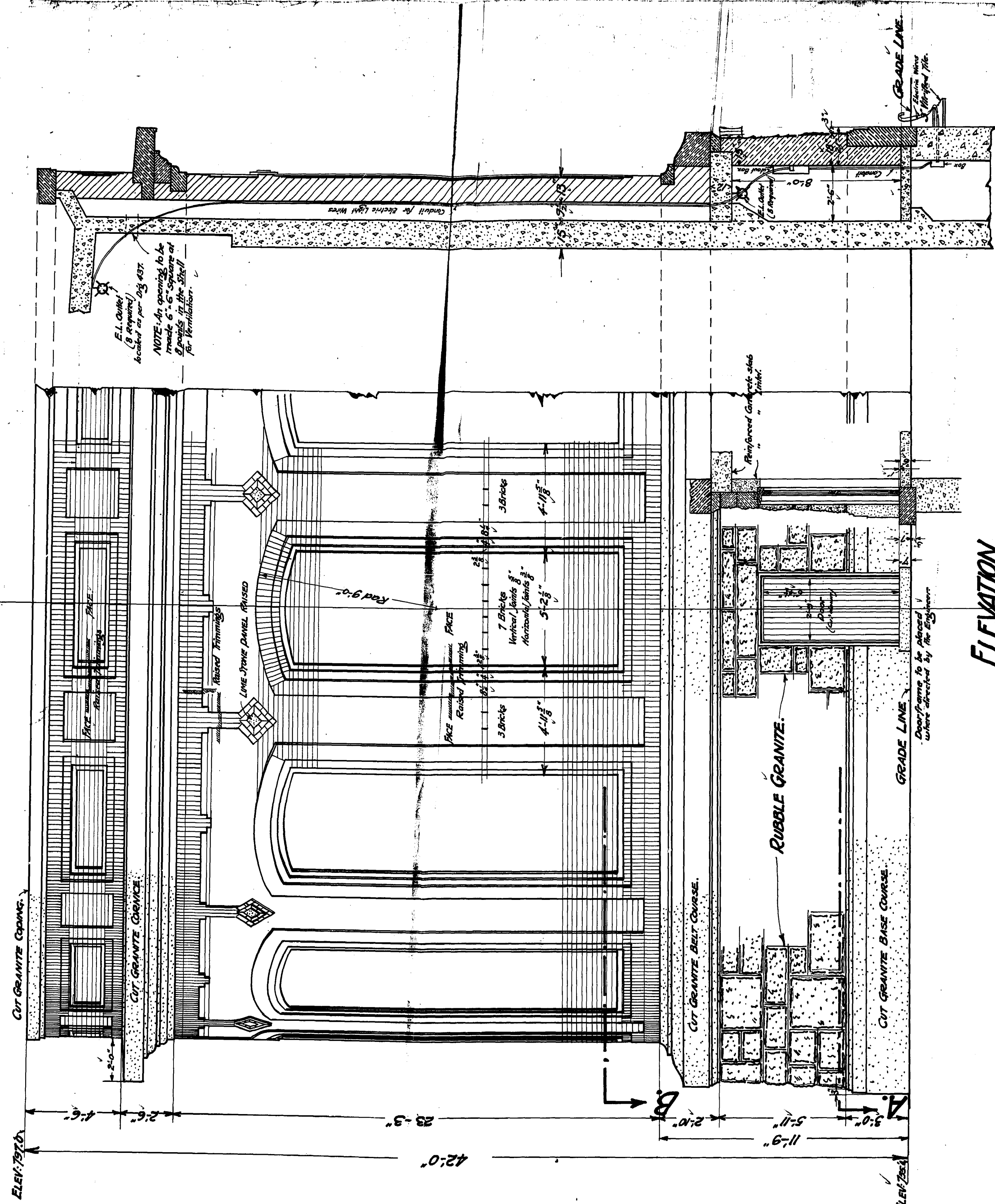
CONTRACT N° 56

D 439

Drawn By: [Signature]  
 Traced By: [Signature]  
 Checked By: [Signature]  
 Approved: [Signature]  
 Deep 8" Drain pipe "encased in concrete" Nov 19, 17, 1917.  
 Stationing added Dec 10-11.  
 High water elevations added Dec 10-11.  
 Drain pipe placed as constructed Dec 10-11.

(Sgd) James H. [Signature]  
 CONSULTING ENGINEER  
 [Signature]  
 CHIEF ENGINEER

GREATER WINNIPEG WATER DISTRICT  
 RED RIVER TUNNEL  
 GENERAL LAYOUT PIPING & WELL AT EAST SH  
 Oct 18, 1917  
 Scale 1" = 10'



ELEVATION SCALE 1/4" = 1'-0"

PLAN THROUGH B.

PLAN THROUGH A.

Item No. 22. CONTRACT 56.

D. 444

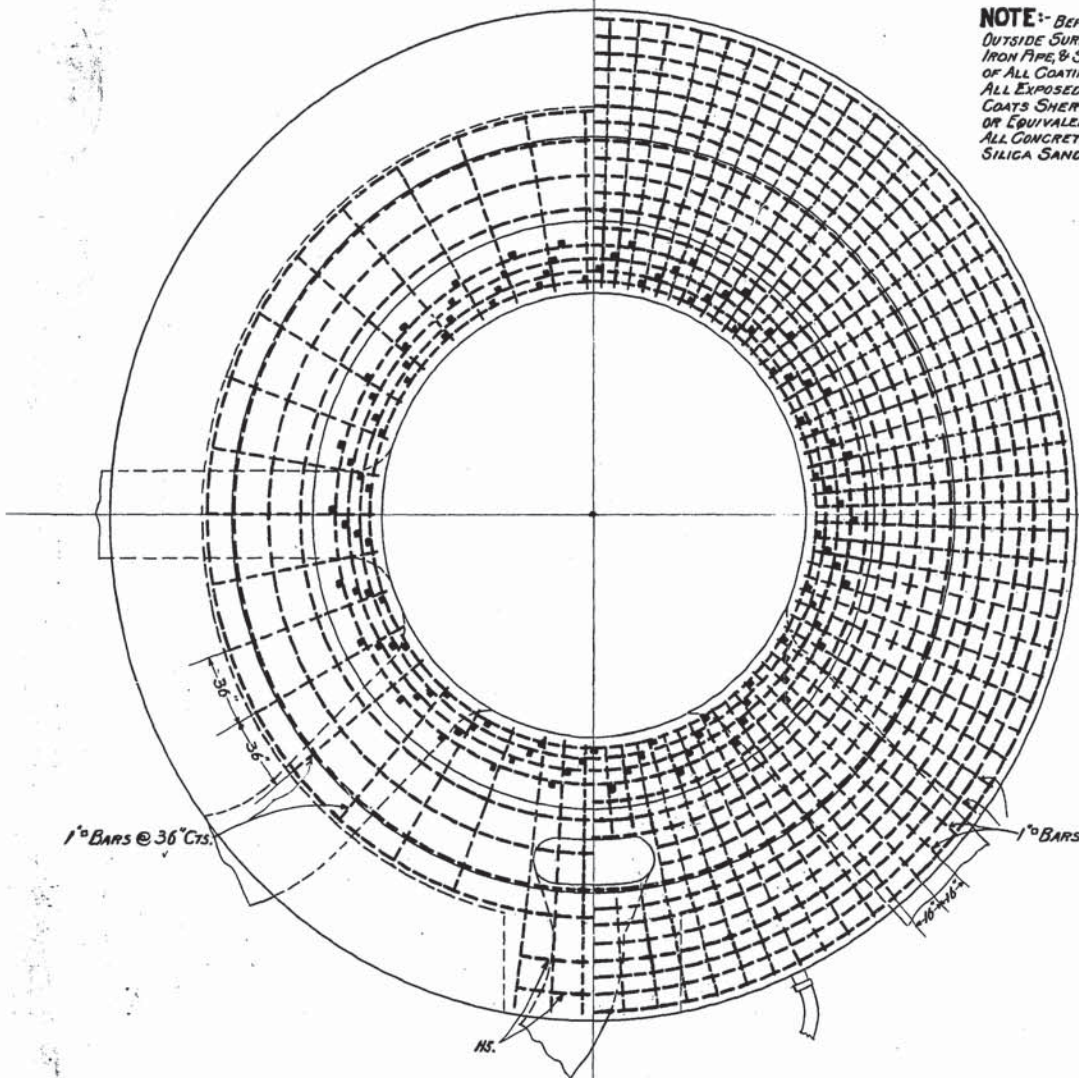
DRAWN BY [Signature] TRACED [Signature] CHECKED [Signature] [Signature]

(Sgd) James H. Furbie CONSULTING ENGINEER. W. C. W. ENGINEERS.

GREATER WINNIPEG WATER DISTRICT RED RIVER TUNNEL. OUTSIDE MASONRY SHELL FOR DUMP WELL. DATE: OCTOBER 23rd 1917.

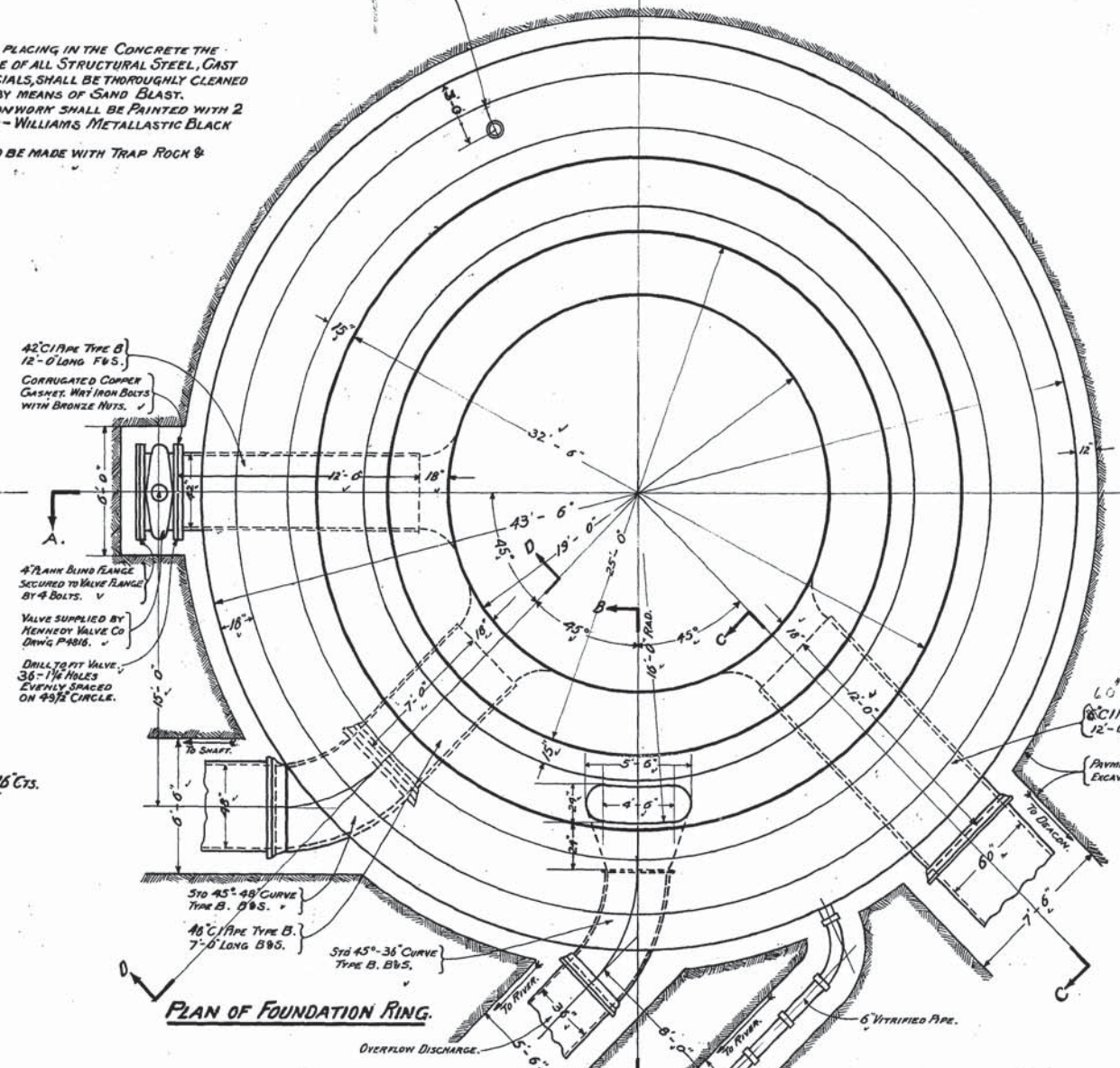
6C.1 PIPE RISER TO COME 6" ABOVE FLOOR LEVEL @ EL. 753.8. TOP OF RISER TO BE FITTED WITH C.1 COVER. RISER TO CONNECT WITH 6" VITRIFIED DRAIN PIPE AROUND BOTTOM OF BASE SLAB.

**NOTE:** BEFORE PLACING IN THE CONCRETE THE OUTSIDE SURFACE OF ALL STRUCTURAL STEEL, CAST IRON PIPE & SPECIALS, SHALL BE THOROUGHLY CLEANED OF ALL COATING BY MEANS OF SAND BLAST. ALL EXPOSED IRONWORK SHALL BE PAINTED WITH 2 COATS SHERWIN-WILLIAMS METALLASTIC BLACK OR EQUIVALENT. ALL CONCRETE TO BE MADE WITH TRAP ROCK & SILICA SAND.

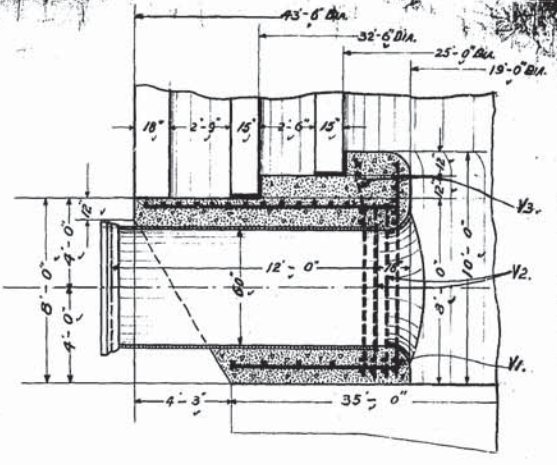


HALF PLAN LOWER REINFORCING STEEL.

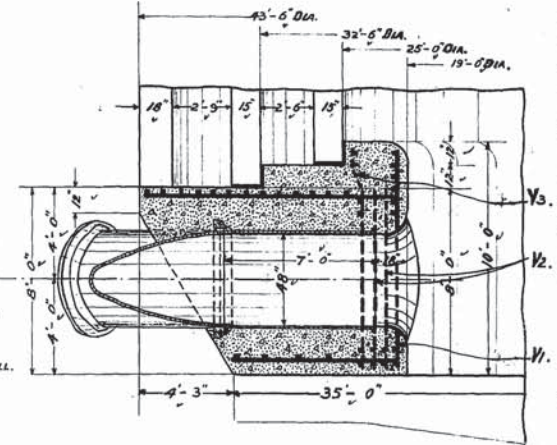
HALF PLAN UPPER REINFORCING STEEL.



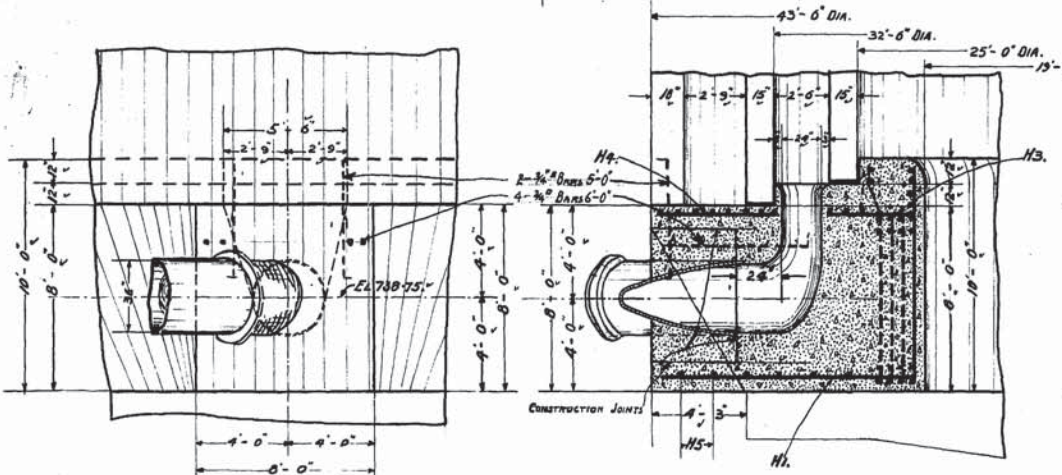
PLAN OF FOUNDATION RING.



SECTION C-C.

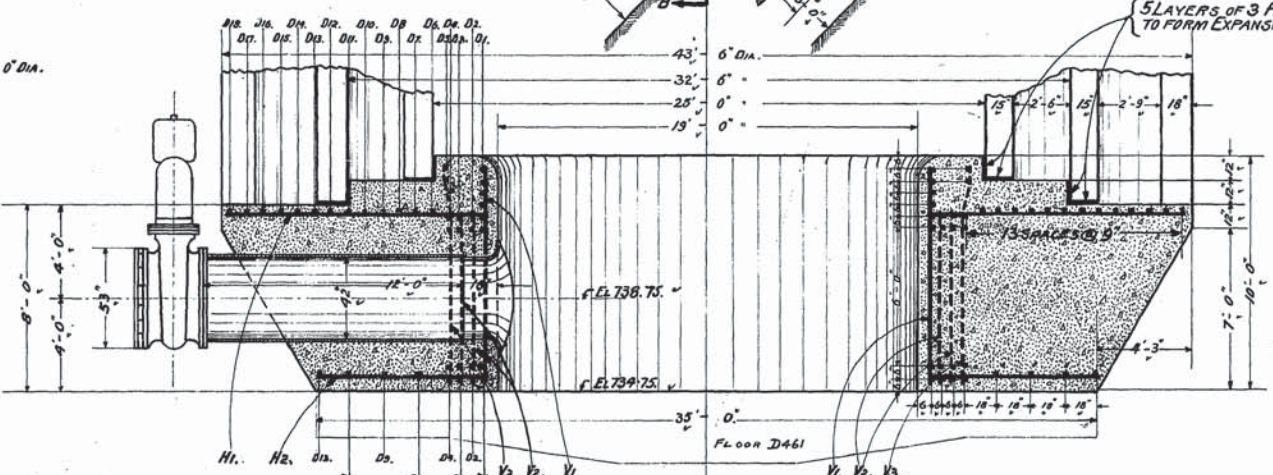


SECTION D-D.



ELEVATION OF FACE OF OVERFLOW DISCHARGE.

SECTION B-B.



SECTION A-A.

BILL OF REINFORCING STEEL.				
LETTER	NR	SIZE	LENGTH	DESCRIPTION
D1.	24	1"Ø	20'-6"	BENT TO 20'-2" DIA.
D2.	12	"	21'-6"	"
D3.	16	"	21'-6"	"
D4.	28	"	13'-0"	"
D5.	14	"	"	"
D6.	8	"	"	"
D7.	18	"	"	"
D8.	8	"	"	"
D9.	18	"	"	"
D10.	9	"	"	"
D11.	20	"	"	"
D12.	10	"	"	"
D13.	20	"	"	"
D14.	11	"	"	"
D15.	12	"	"	"
D16.	12	"	"	"
D17.	12	"	"	"
D18.	13	"	"	"
Y1.	26	"	9'-6"	STRAIGHT CUT FROM 10'-6"
Y2.	52	"	7'-6"	"
Y3.	26	"	9'-6"	"
H1.	108	"	11'-3"	"
H2.	39	"	7'-6"	"
H3.	4	"	4'-0"	"
H4.	9	"	5'-3"	"
H5.	2	"	7'-6"	"

CONTRACT 56.

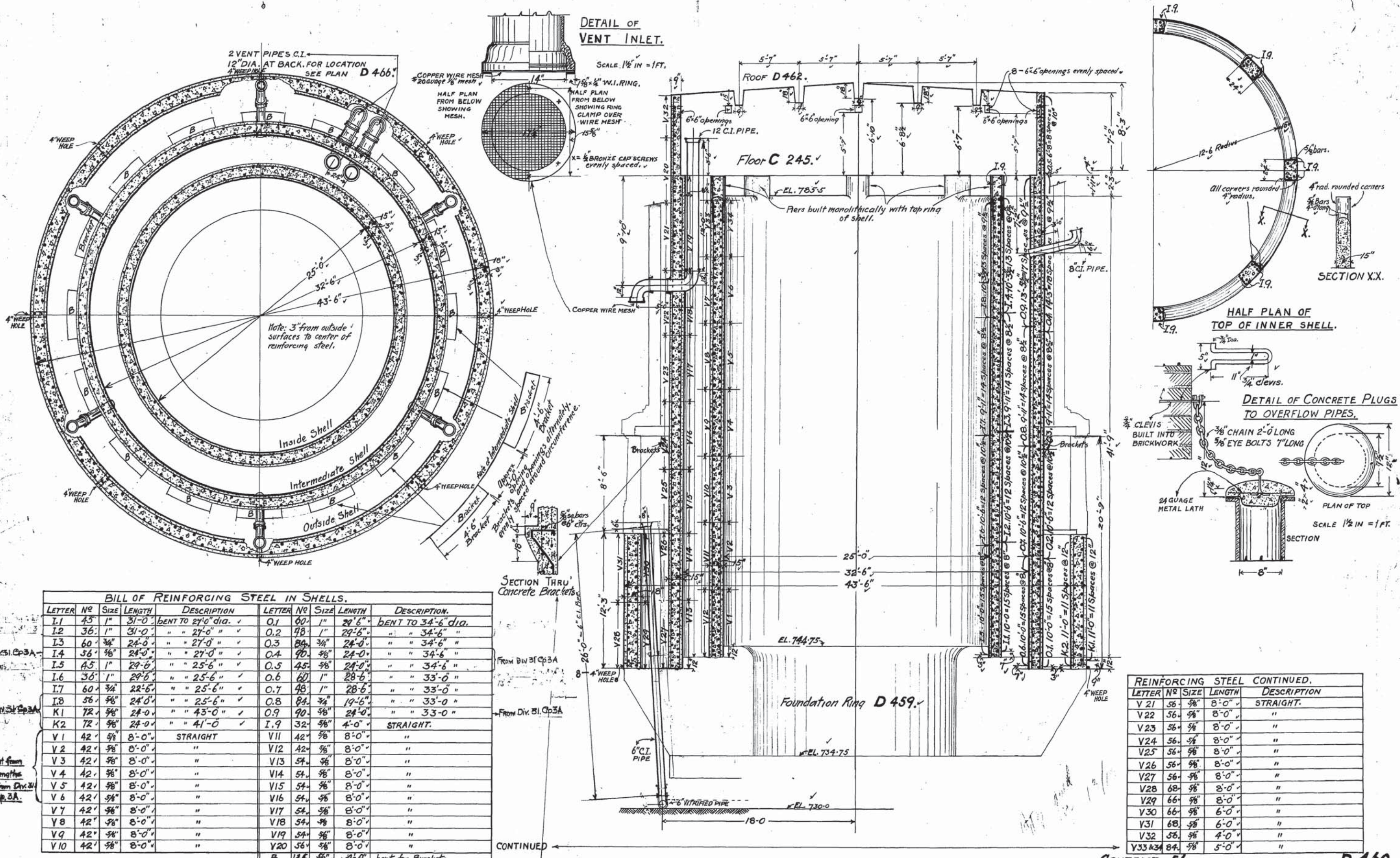
D459.

Drawn By H.T.  
 Traced By R.S.  
 Checked By M. Sauer

EXTRA REINFORCING STEEL CONSTRUCTION JOINT AT OVERFLOW DISCHARGE ADDED JUN 24-1918

James H. Fuertes  
 CONSULTING ENGINEER.  
 W. Schaefer  
 CHIEF ENGINEER.

**GREATER WINNIPEG WATER DISTRICT.**  
 RED RIVER TUNNEL.  
 FOUNDATION RING FOR PUMP WELL.  
 FEB 28<sup>TH</sup> 1918. SCALE 1/4" = 1'-0"



DETAIL OF VENT INLET.

SCALE 1/2 IN = 1 FT.

HALF PLAN OF TOP OF INNER SHELL.

DETAIL OF CONCRETE PLUGS TO OVERFLOW PIPES.

SECTION XX.

BILL OF REINFORCING STEEL IN SHELLS.

LETTER	NO	SIZE	LENGTH	DESCRIPTION	LETTER	NO	SIZE	LENGTH	DESCRIPTION
I.1	45	1"	31'-0"	BENT TO 27'-0" dia.	O.1	60	1"	29'-6"	BENT TO 34'-6" dia.
I.2	36	1"	31'-0"	" " 27'-0" "	O.2	48	1"	29'-6"	" " 34'-6" "
I.3	60	3/4"	24'-0"	" " 27'-0" "	O.3	80	3/4"	24'-0"	" " 34'-6" "
I.4	56	5/8"	24'-0"	" " 27'-0" "	O.4	90	5/8"	24'-0"	" " 34'-6" "
I.5	45	1"	29'-6"	" " 25'-6" "	O.5	45	5/8"	24'-0"	" " 34'-6" "
I.6	36	1"	29'-6"	" " 25'-6" "	O.6	60	1"	28'-6"	" " 33'-0" "
I.7	60	3/4"	22'-6"	" " 25'-6" "	O.7	48	1"	28'-6"	" " 33'-0" "
I.8	56	5/8"	24'-0"	" " 25'-6" "	O.8	84	3/4"	19'-6"	" " 33'-0" "
K.1	72	5/8"	24'-0"	" " 43'-0" "	O.9	90	5/8"	24'-0"	" " 33'-0" "
K.2	72	5/8"	24'-0"	" " 41'-0" "	I.9	32	5/8"	4'-0"	STRAIGHT.
V.1	42	5/8"	8'-0"	STRAIGHT	V.11	42	5/8"	8'-0"	"
V.2	42	5/8"	8'-0"	"	V.12	42	5/8"	8'-0"	"
V.3	42	5/8"	8'-0"	"	V.13	54	5/8"	8'-0"	"
V.4	42	5/8"	8'-0"	"	V.14	54	5/8"	8'-0"	"
V.5	42	5/8"	8'-0"	"	V.15	54	5/8"	8'-0"	"
V.6	42	5/8"	8'-0"	"	V.16	54	5/8"	8'-0"	"
V.7	42	5/8"	8'-0"	"	V.17	54	5/8"	8'-0"	"
V.8	42	5/8"	8'-0"	"	V.18	54	5/8"	8'-0"	"
V.9	42	5/8"	8'-0"	"	V.19	54	5/8"	8'-0"	"
V.10	42	5/8"	8'-0"	"	V.20	56	5/8"	8'-0"	"
					B	188	5/8"	4'-0"	bent for Brackets.

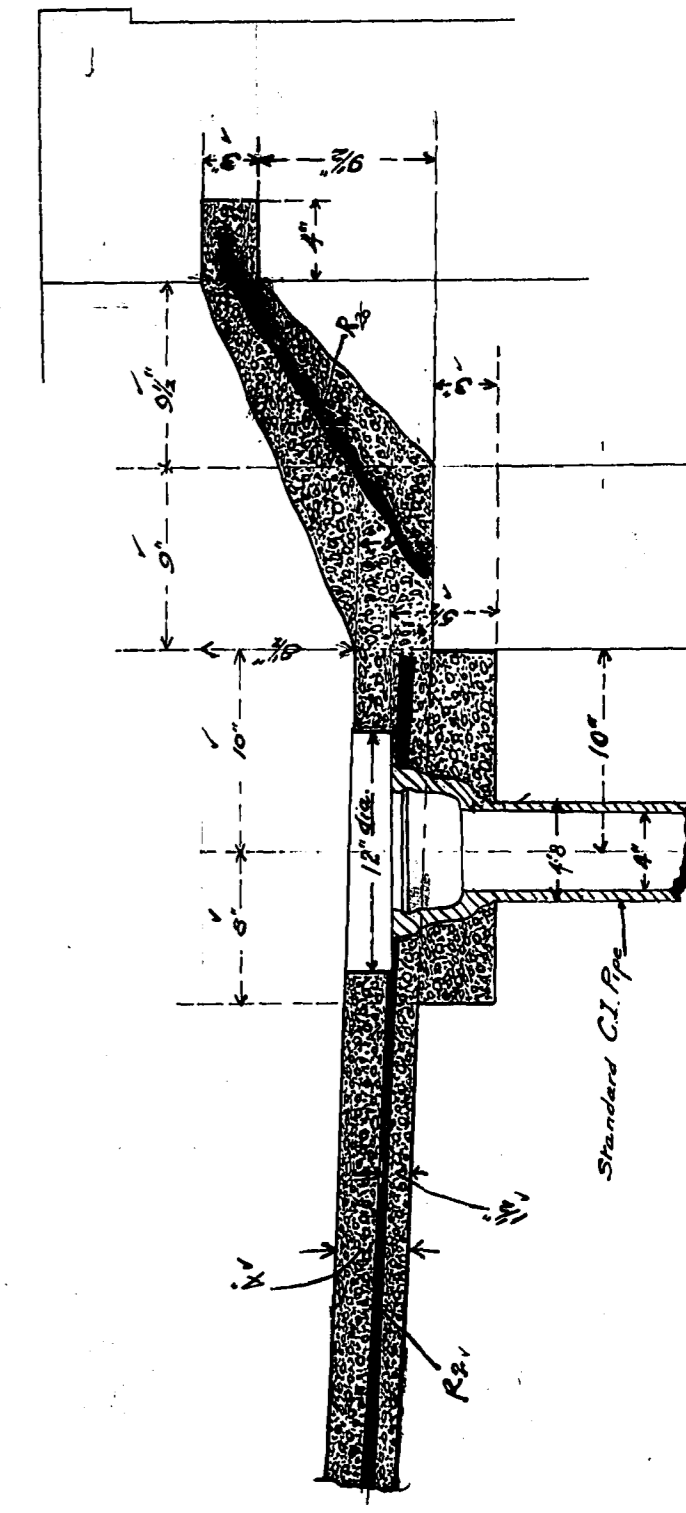
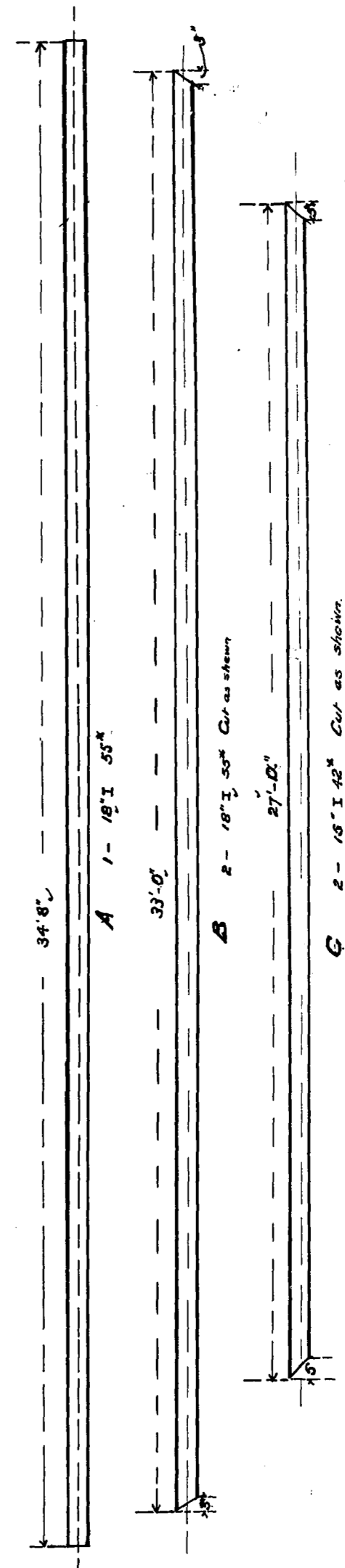
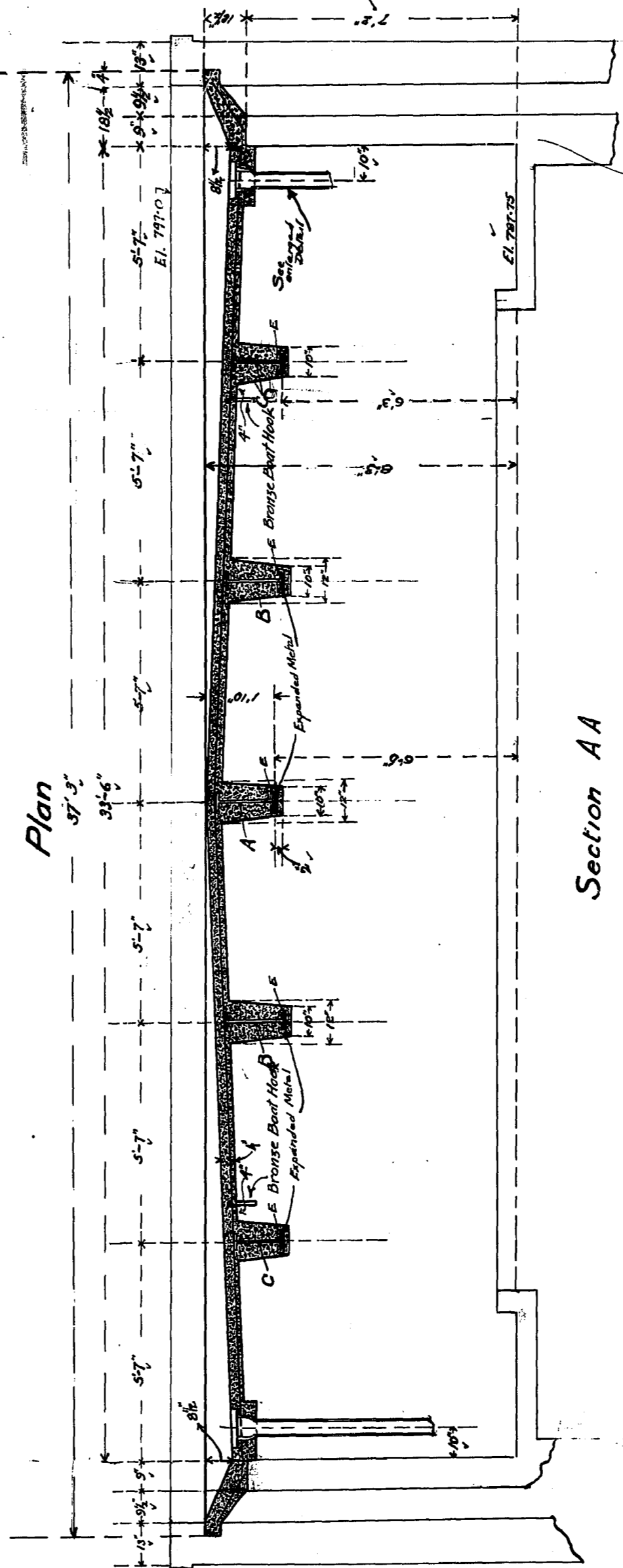
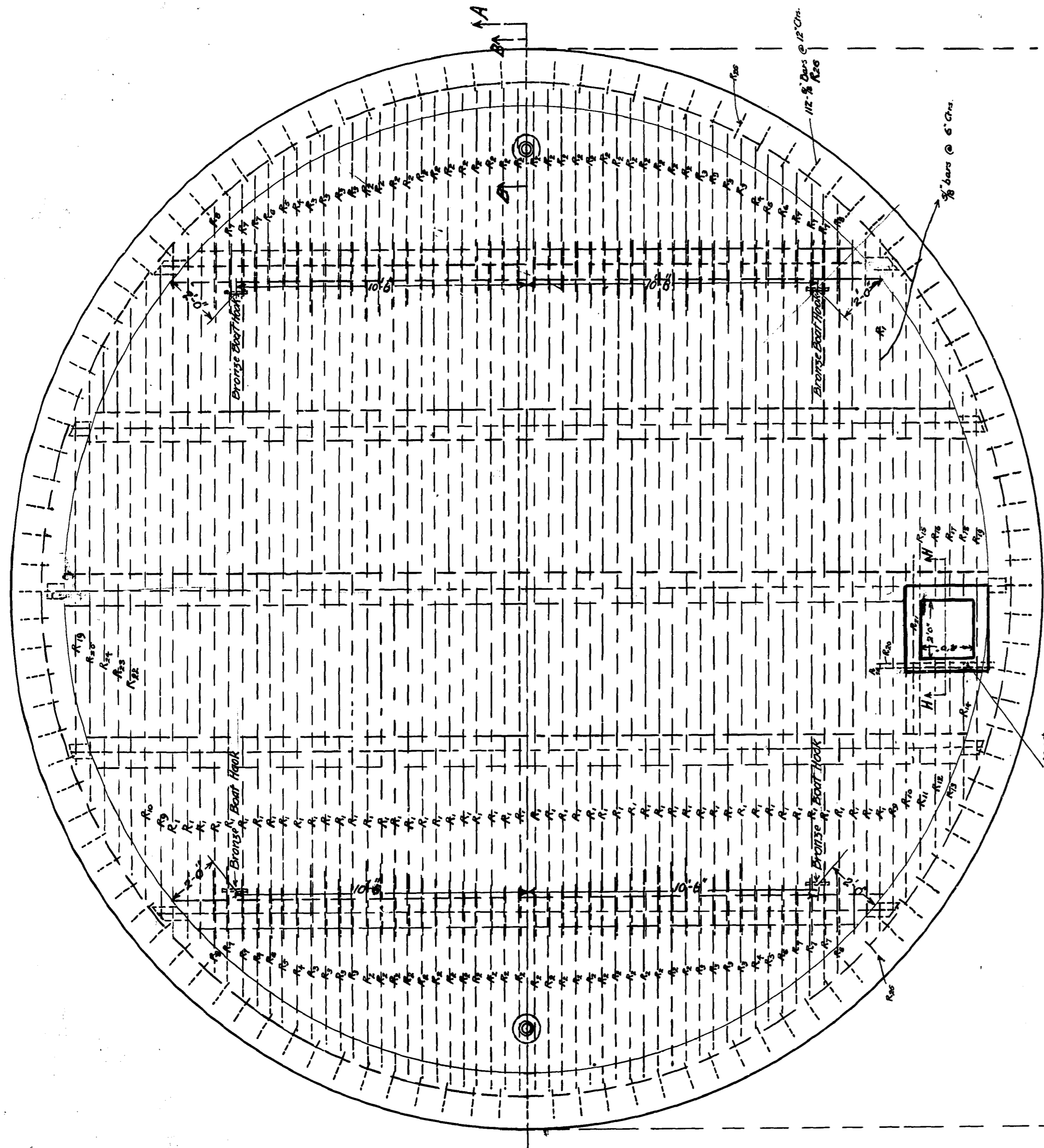
REINFORCING STEEL CONTINUED.

LETTER	NO	SIZE	LENGTH	DESCRIPTION
V.21	56	5/8"	8'-0"	STRAIGHT.
V.22	56	5/8"	8'-0"	"
V.23	56	5/8"	8'-0"	"
V.24	56	5/8"	8'-0"	"
V.25	56	5/8"	8'-0"	"
V.26	56	5/8"	8'-0"	"
V.27	56	5/8"	8'-0"	"
V.28	68	5/8"	8'-0"	"
V.29	66	5/8"	8'-0"	"
V.30	66	5/8"	6'-0"	"
V.31	68	5/8"	6'-0"	"
V.32	56	5/8"	4'-0"	"
V.33 & 34	84	5/8"	5'-0"	"

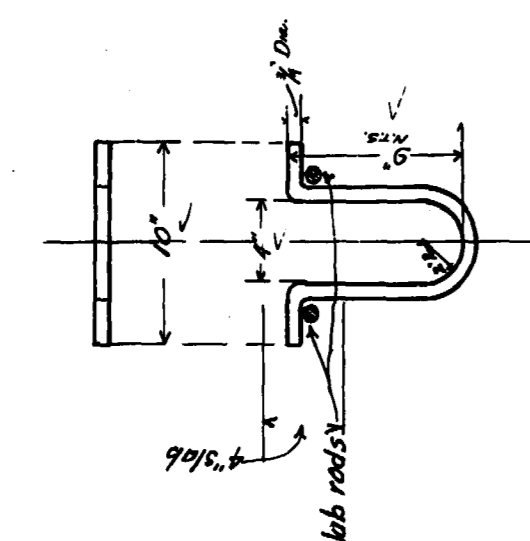
James A. Fuentes  
CONSULTING ENGINEER  
W. J. Chase  
CHIEF ENGINEER.

GREATER WINNIPEG WATER DISTRICT.  
SHELL DETAILS FOR PUMP WELL.  
MARCH 7<sup>th</sup> 1918.  
SCALE 1/2 IN = 1 FT.

Drawn by G. J. W.  
Checked by W. J. Chase



Enlarged Section BB, showing Downspout. Scale: 1/4" = 1'



Bronze Boat Hooks  
1 3/4" hooked over top  
of slab rods.

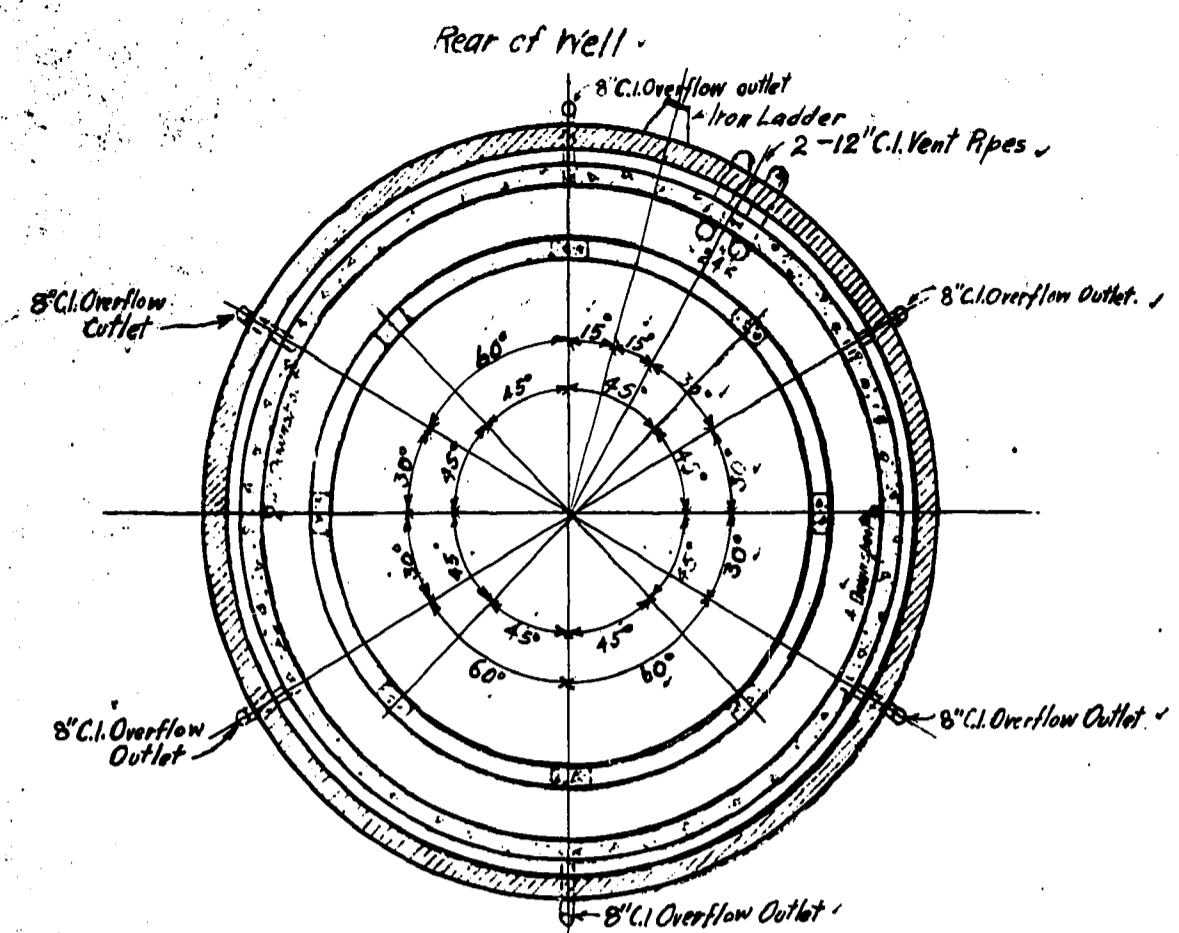
Letter	No.	Size	Length	Description
R1	52'	3/4"	24'0"	52-24'0"
R2	48'	1"	8'0"	Cut from R1's 10'0" for
R3	16'	1"	6'0"	1-24'0" for
R4	4'	1"	4'11"	3-8'0" for
R5	4'	1"	4'5"	3-8'0" for
R6	4'	1"	4'0"	2-24'0" for
R7	12'	1"	3'6"	with 12' R5 Re. 1'
R8	4'	1"	2'8"	from 2-24'0" for
R9	2'	1"	7'3"	1-24'0"
R10	1'	1"	6'6"	1-24'0"
R11	1'	1"	5'8"	1-24'0"
R12	1'	1"	4'7"	1-24'0"
R13	1'	1"	10'0"	1-24'0"
R14	1'	1"	9'3"	1-24'0"
R15	1'	1"	4'6"	1-24'0"
R16	1'	1"	8'3"	1-24'0"
R17	1'	1"	14'6"	1-24'0"
R18	1'	1"	7'3"	1-24'0"
R19	1'	1"	16'6"	1-24'0"
R20	2'	1"	12'0"	1-24'0"
R21	1'	1"	19'6"	1-24'0"
R22	1'	1"	6'0"	1-24'0"
R23	1'	1"	18'0"	1-24'0"
A	1	18" I	34'8"	As shown, SS
B	2	18" I	33'0"	Cut as shown SS
C	2	15" I	27'0"	12"
E	1	9" Mesh	154'0"	Expanded Metal as shown.
R24	112'	3/8"	1'8"	Spaced 12' apart - 7-24'0"

All 3/8" has taken from 7/8" lengths furnished from Riv. 31 Comp 34

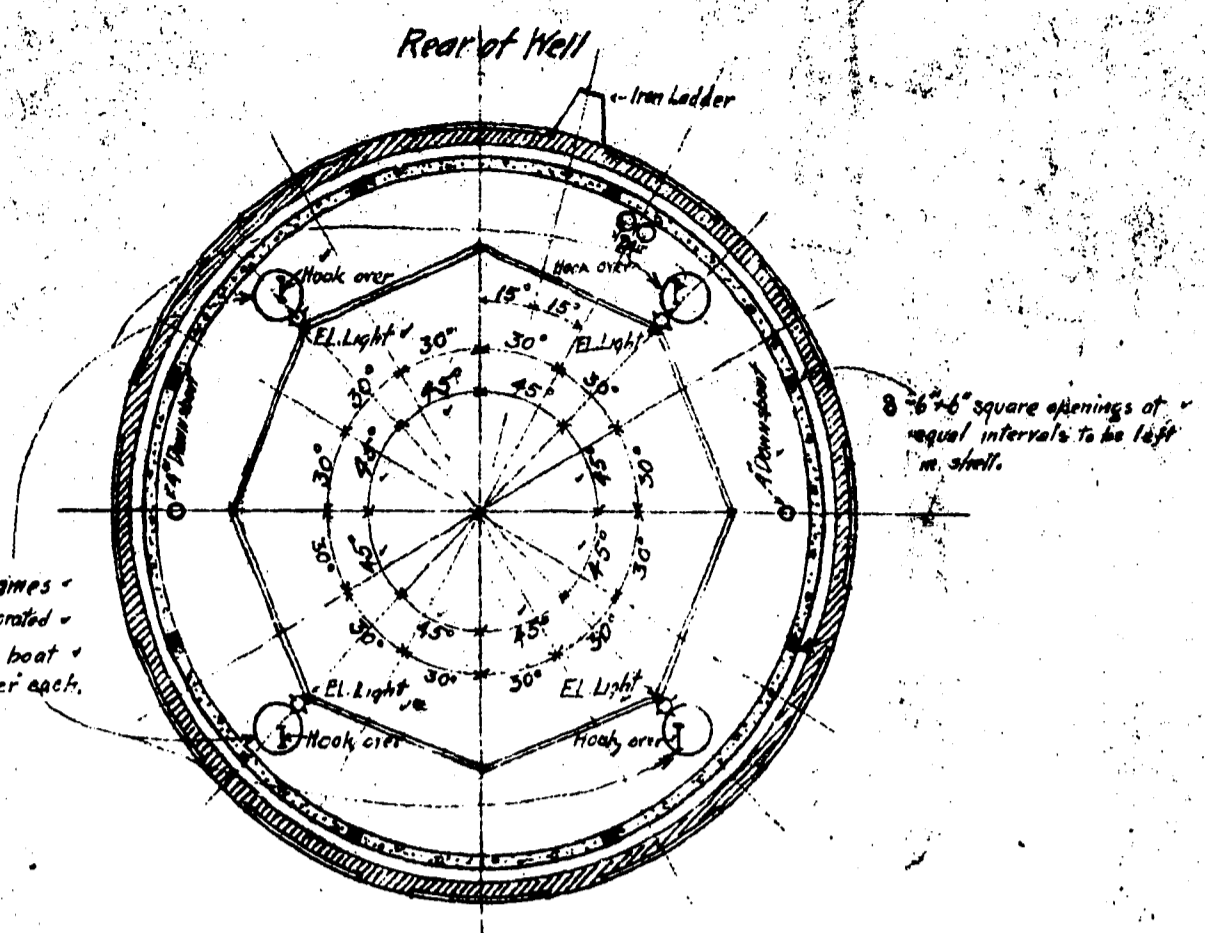
DRAWN BY: C.F.K.  
CHECKED BY: C.F.K.  
APPROVED BY: M. Sauer

James H. Fuertes  
CONSULTING ENGINEER.  
W. Schaefer  
CHIEF ENGINEER.

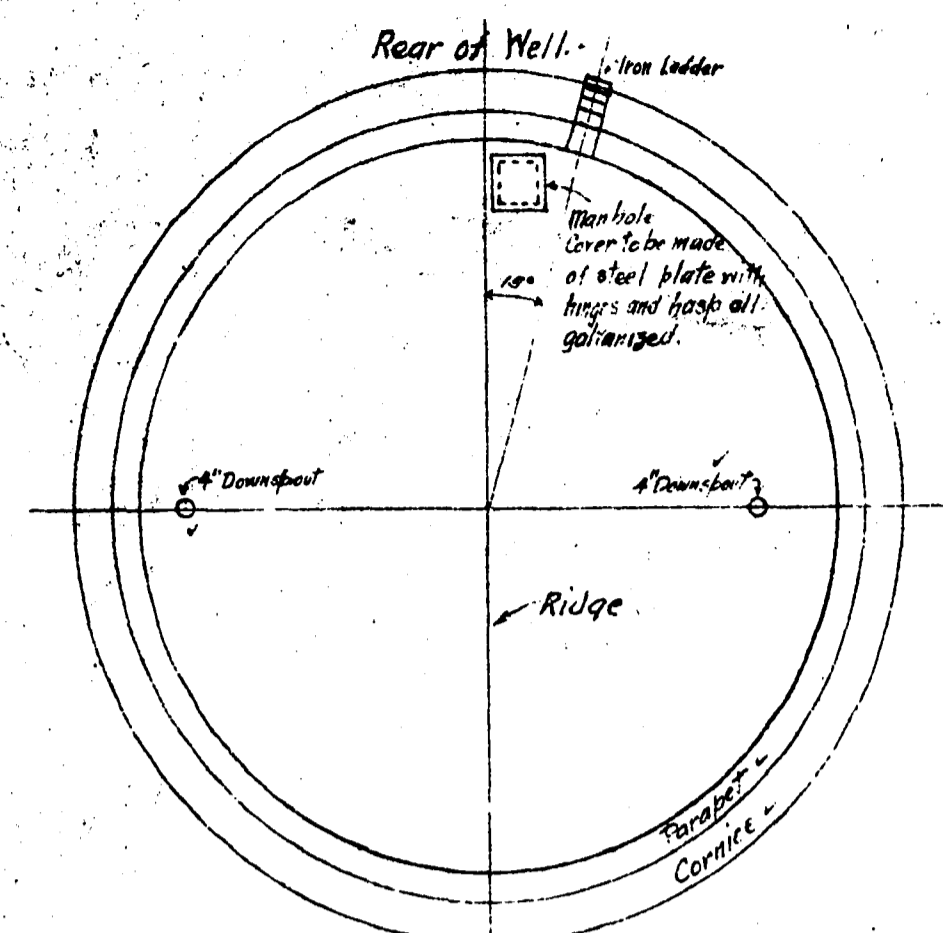
CONTRACT 56.  
D462.  
GREATER WINNIPEG WATER DISTRICT.  
RED RIVER TUNNEL.  
ROOF PLAN FOR PUMP WELL.  
MAR 7 1918. SCALE 1/2" = 1'



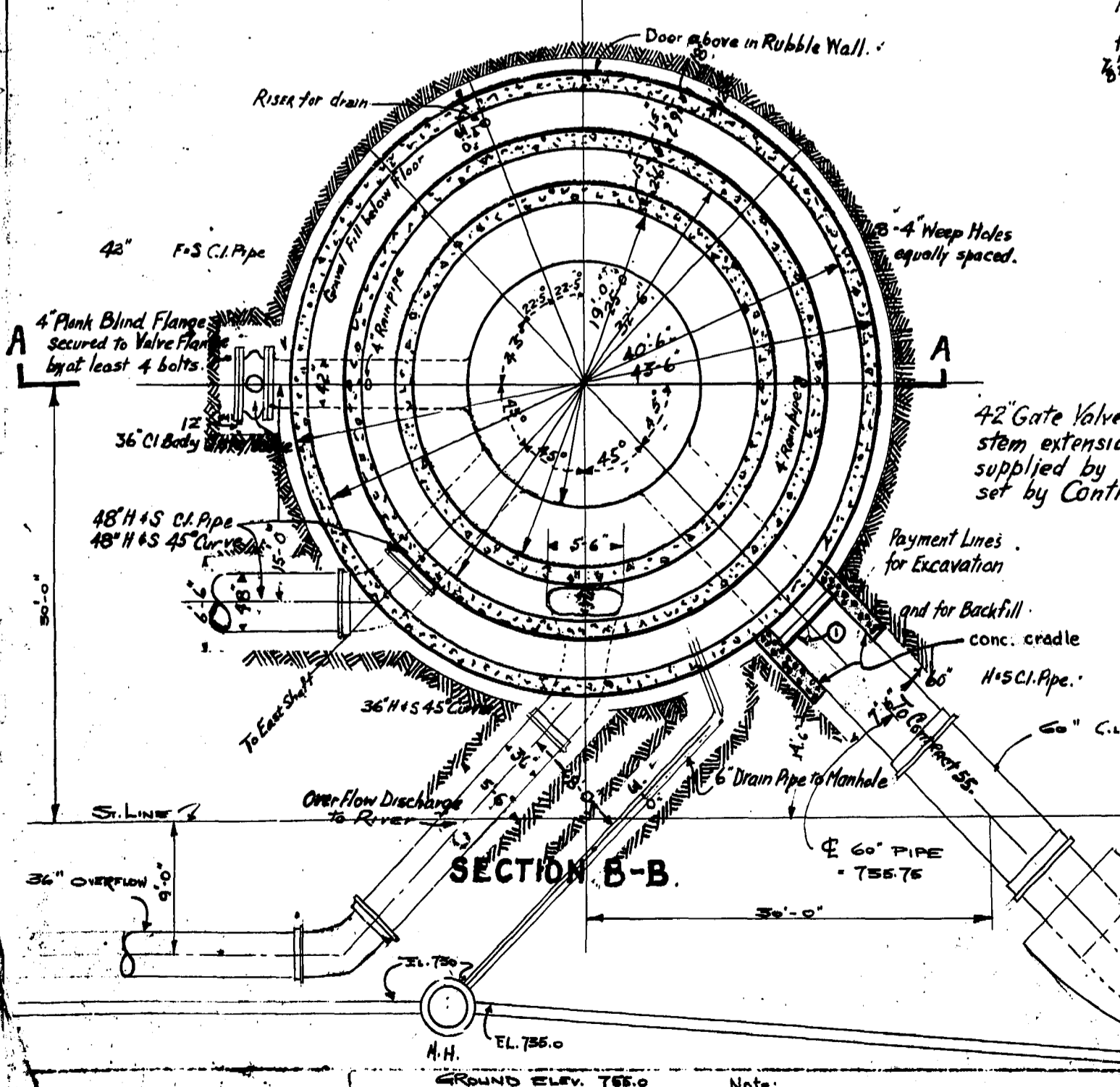
SECTION C-C



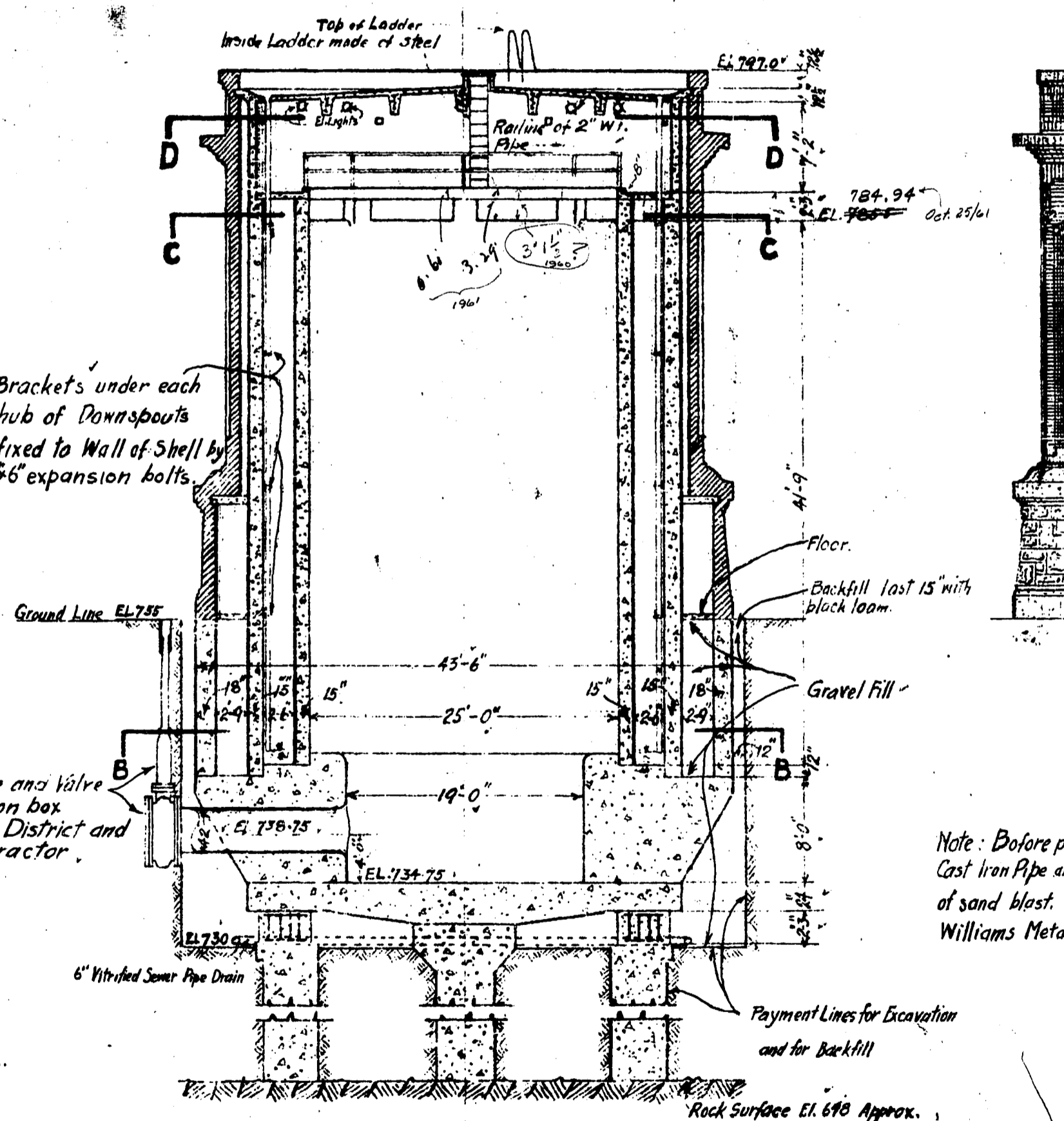
SECTION D-D.



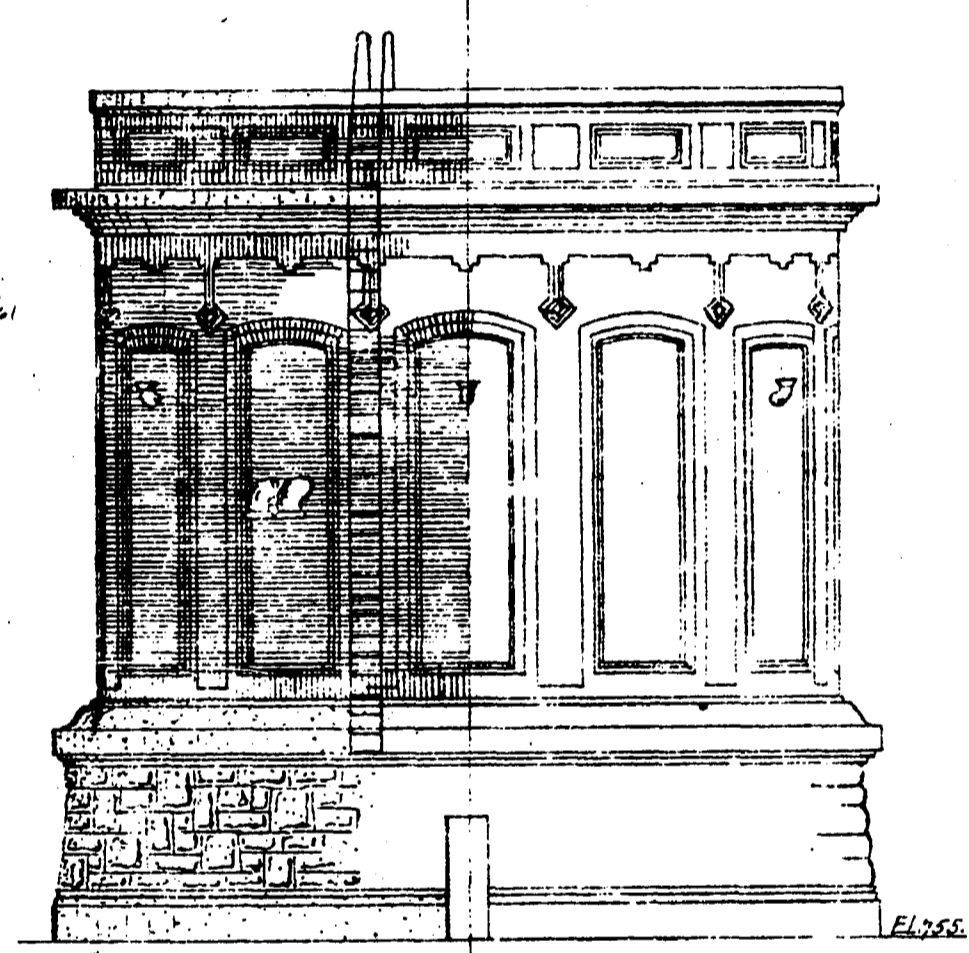
ROOF PLAN.



SECTION B-B.



SECTION A-A.



BACK ELEVATION OF TANK

For Detail see Drawing D444.

- For Piers and Foundation Girder see D 458.
- " Foundation Ring D 459.
- " Shells D 460.
- " Shell Floor D 461.
- " Roof D 462.
- " Outside masonry Shell D 444.
- " Iron and Steel Details D 467.
- " Gallery Floor C 245.

Note: Before placing in the concrete the outside surface of all structural steel, Cast iron Pipe and Specials shall be thoroughly cleaned of all coating by means of sand blast. All exposed iron work shall be painted with 2 coats of Sherwin-Williams Metallastic Black or Equivalent.

Drawn by J.H. ...  
 Checked by J.H. ...  
 Approved by J.H. ...

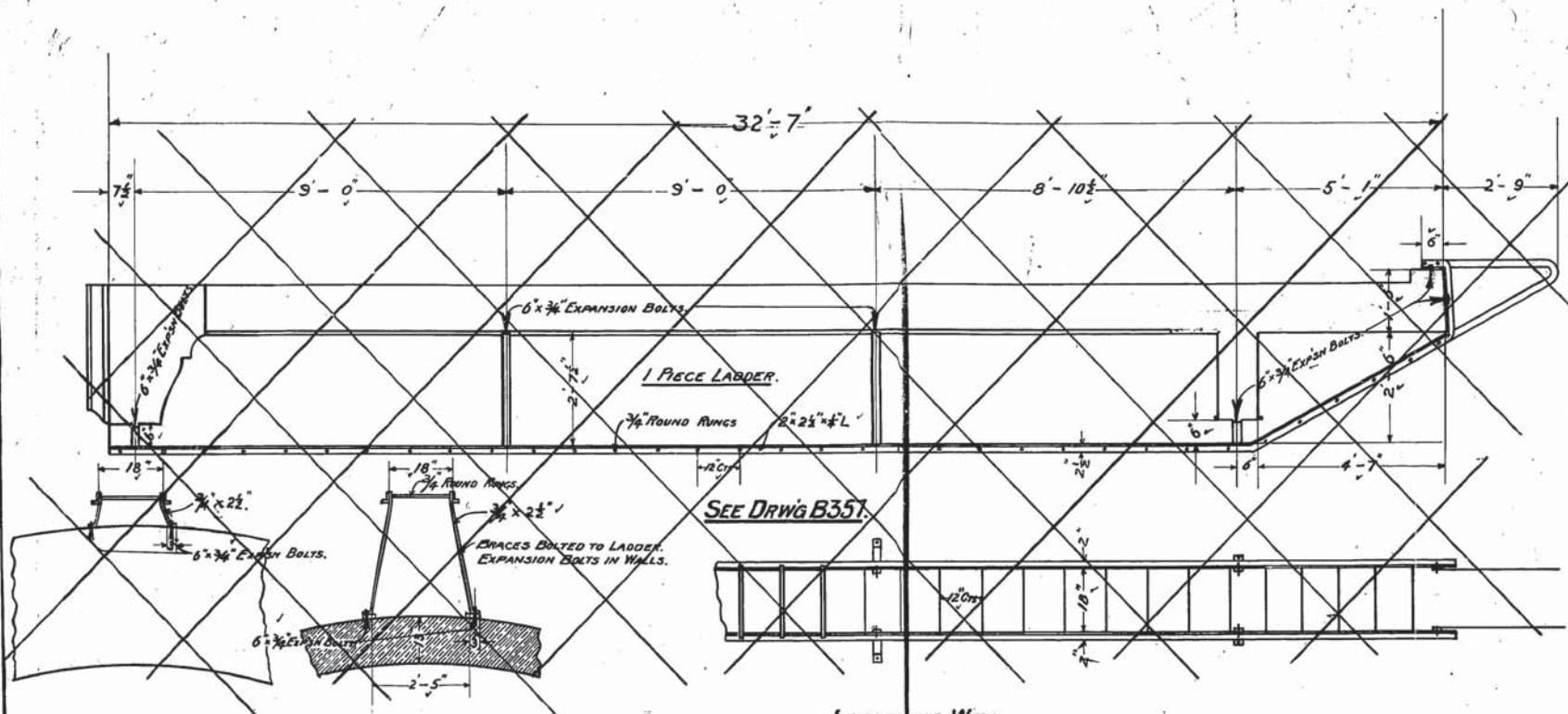
Note:  
 Leak repaired 22 June 1956  
 30"x30"x12'-0" high conc. block  
 over pipe removed. Cribbing  
 8'-0" square left in place.  
 location indicated.

CONTRACT 56

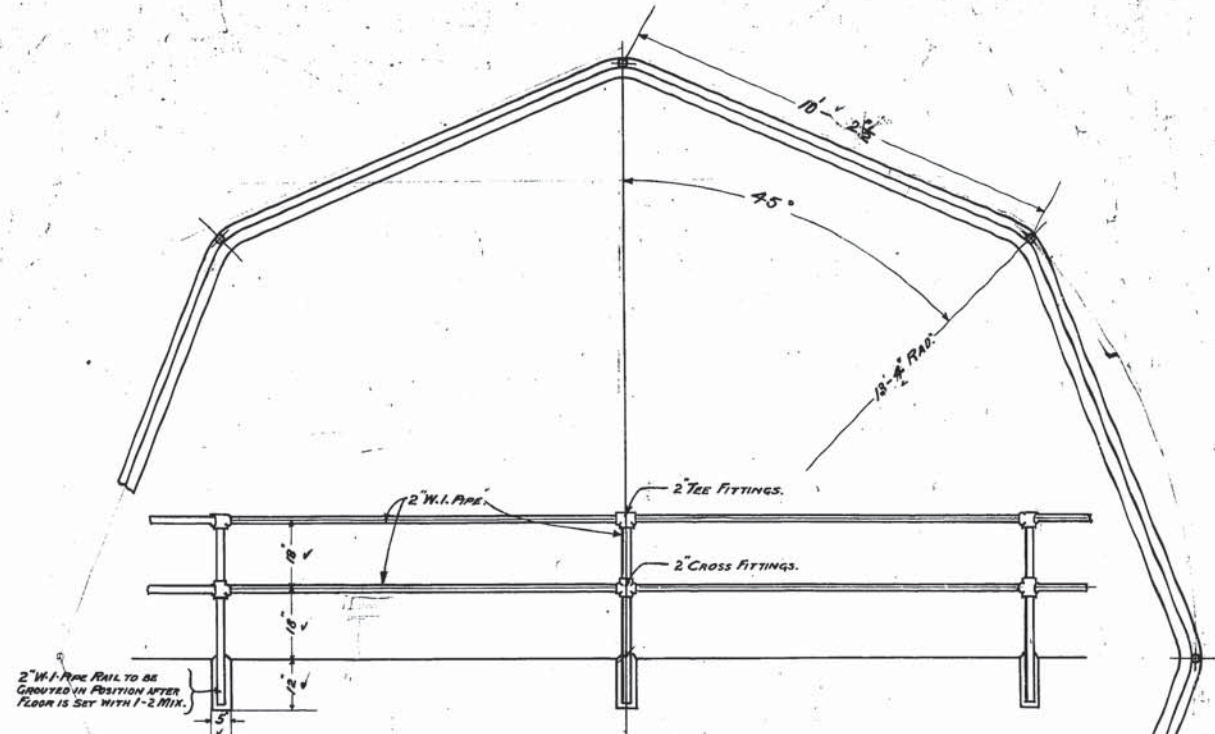
D466.

GREATER WINNIPEG WATER DISTRICT,  
 RED RIVER TUNNEL  
 GENERAL DETAILS OF PUMP WELL  
 March 11<sup>th</sup> 1918  
 scale 3/4" = 1'-0"

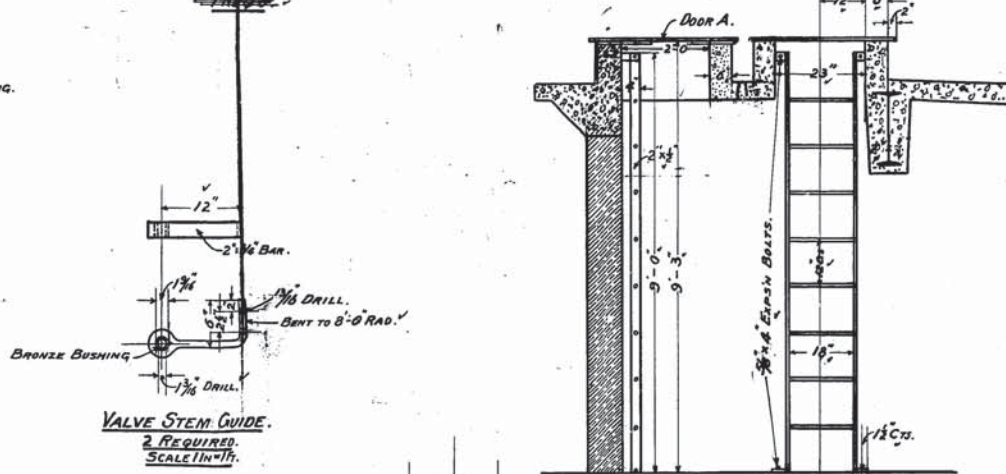
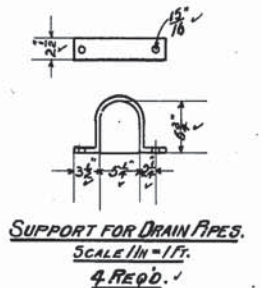
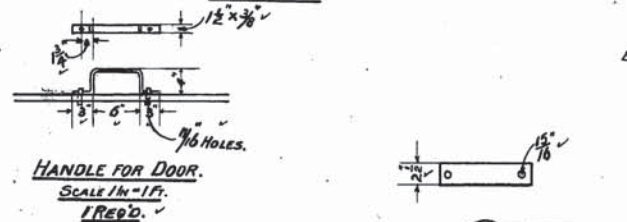
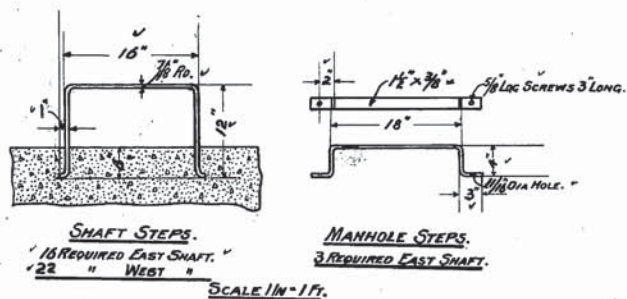
James H. Fuerjes  
 CONSULTING Engineer  
 W.G. Glace  
 Chief Engineer



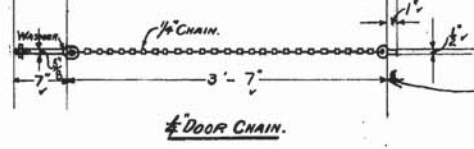
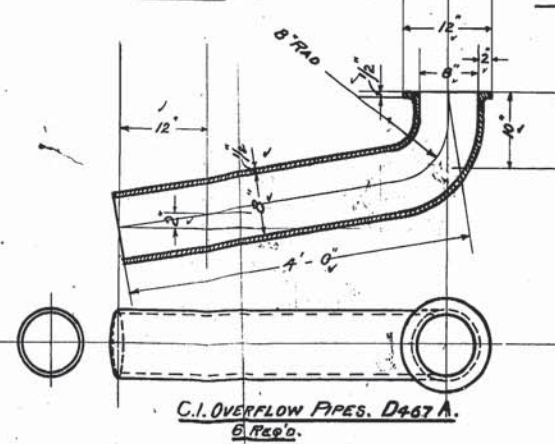
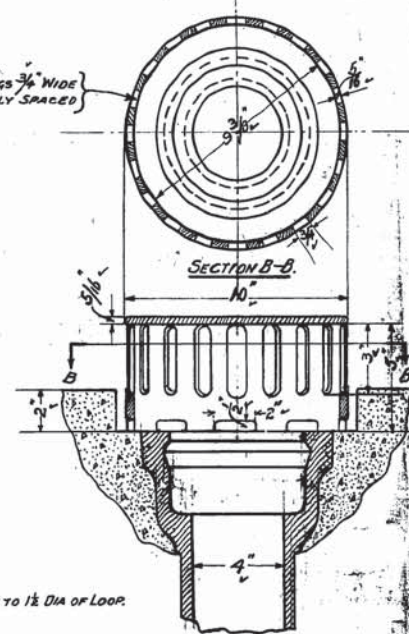
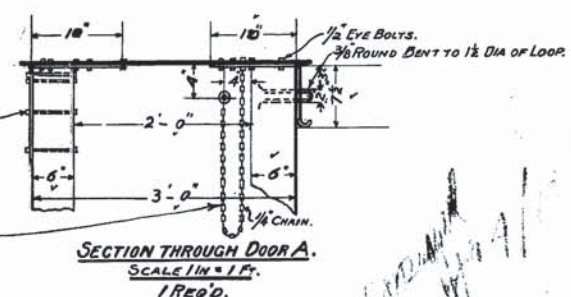
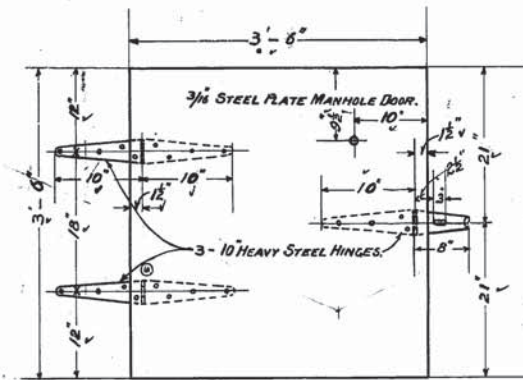
LADDER FOR WELL.  
SCALE 1/4" = 1'-0"  
1 REQ'D.



RAILING.  
SCALE 1/4" = 1'-0"  
1 COMPLETE CIRCLE REQ'D.



MANHOLE LADDER FOR PUMP WELL.  
SCALE 1/4" = 1'-0"  
1 REQ'D.

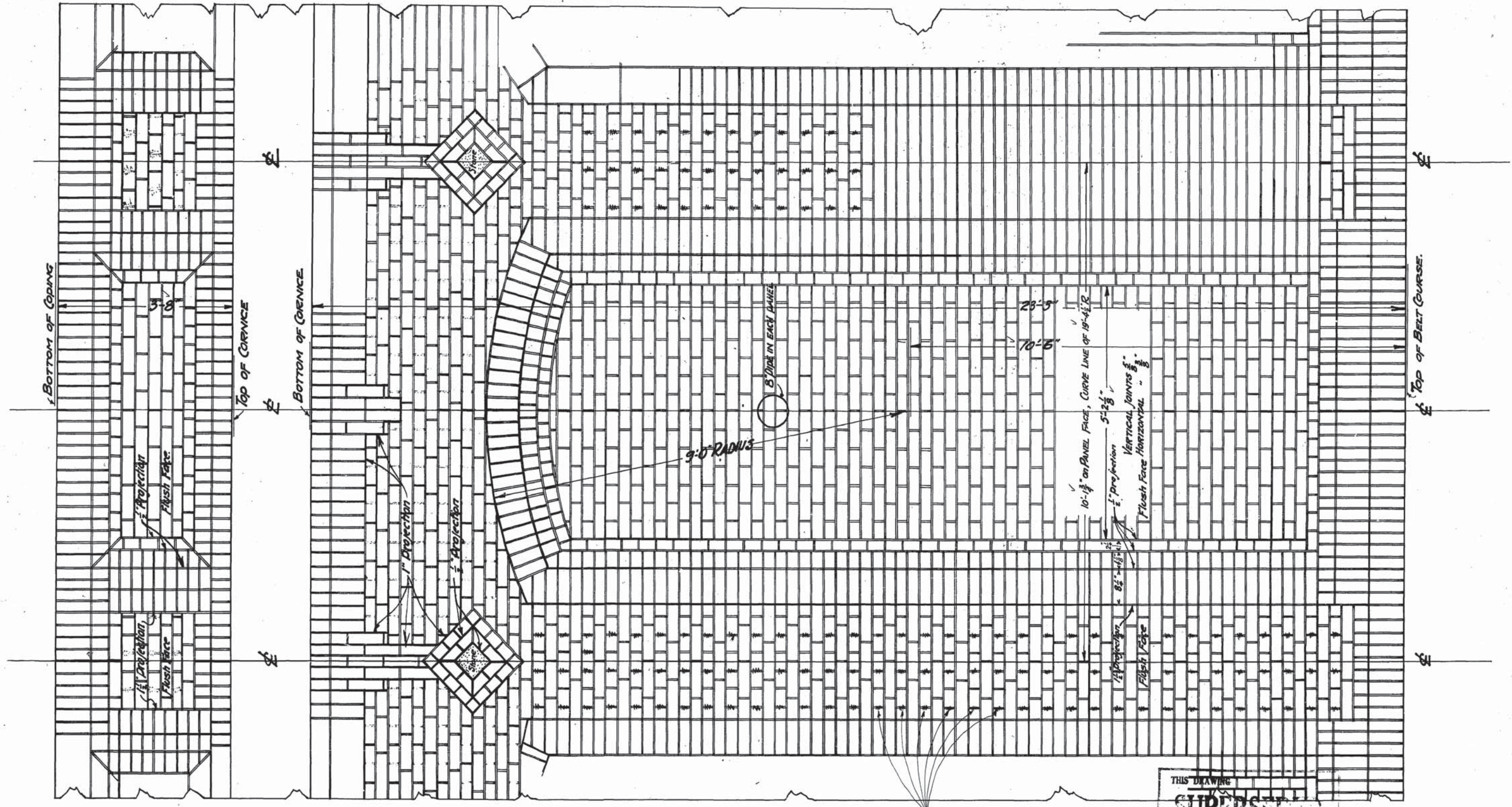


W. Dr.  
R.S.  
J. H. Fugates

James H. Fugates  
CONSULTING ENGINEER.  
W. Schaefer  
CHIEF ENGINEER.

GREATER WINNIPEG WATER DISTRICT  
RED RIVER TUNNEL.  
IRON & STEEL DETAILS FOR EAST & WEST SHAFTS & PUMP WELL  
MAY 27 1916.





**NOTE: STONE PANELS TO BE MADE OF BEDFORD STONE.**  
 USE WALL TIES OF APPROVED MAKE, TO CONNECT FACE  
 BRICK TO COMMON BRICK, EVERY 5TH COURSE.

RAKED, WHITE MORTAR JOINT.

**NOTE: CONTRARY TO BOND INDICATED  
 ON THIS DRAWING, FACE BRICK  
 TO BE LAID UP IN STRETCHER COURSES  
 SIMILAR TO BOND SHOWN IN PANELS.**

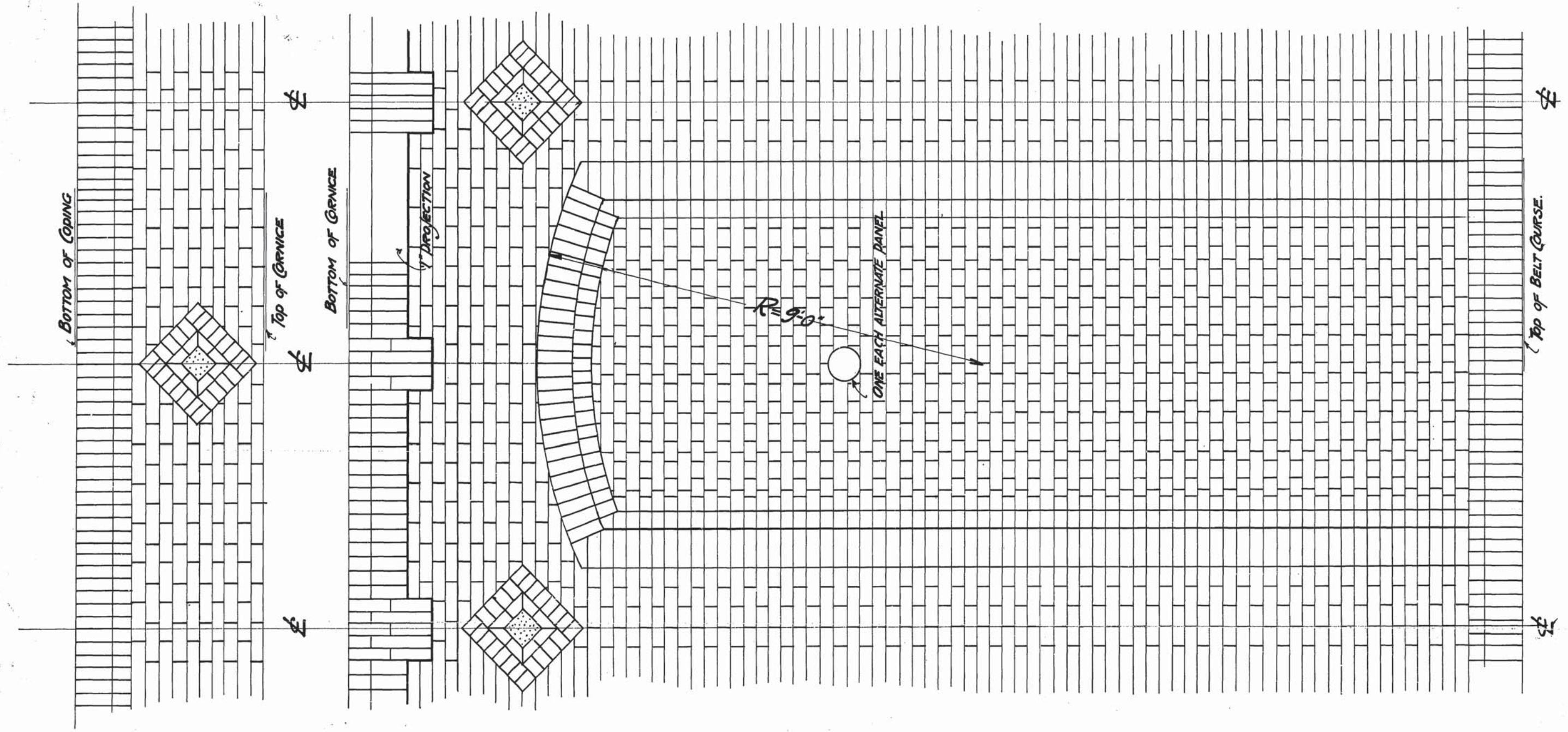
THIS DRAWING  
**SUPERSEDES**  
 ALL PREVIOUS DRAWINGS  
 BY DRAWING NO. \_\_\_\_\_

CONTRACT 56 D. 492.

Drawn BY *J.P.*  
 Traced " "  
 Checked " "  
 Approved " *J. Taylor*

*W. G. Chace*  
 Chief Engineer

**GREATER WINNIEG WATER DISTRICT.**  
**OUTSIDE MASONRY SHELL FOR PUMP WELL.**  
 DATE: APR. 28 1918 **DETAILS OF BRICK DANELLING** SCALE: 1/4" = 1'-0"



NOTE: Vertical Joints  $\frac{5}{8}$ "  
 Horizontal Joints  $\frac{3}{8}$ "  
 Raked White Mortar Joints.

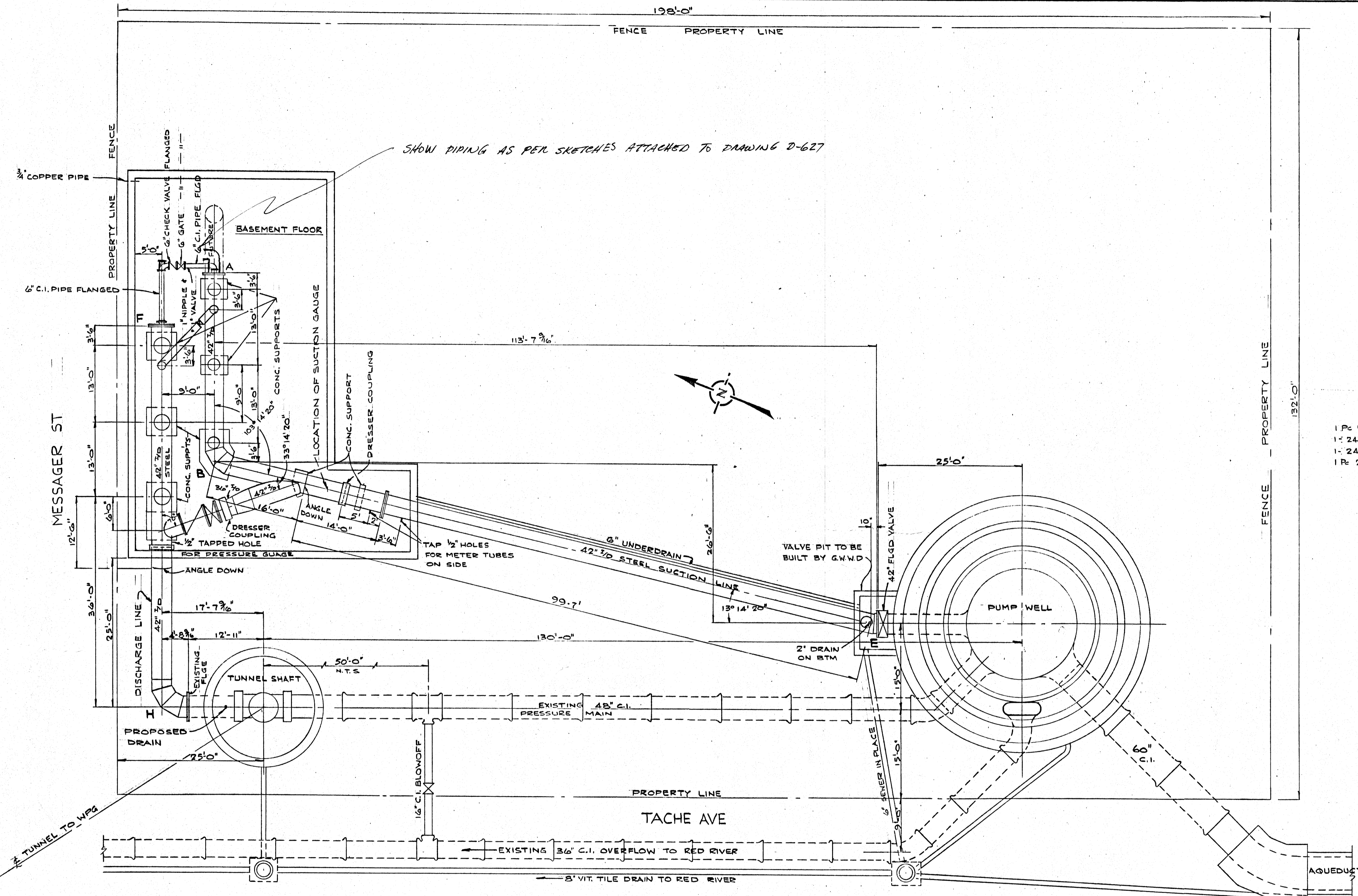
CONTRACT 56 D. 513.

Drawn BY *[Signature]*  
 Traced - *[Signature]*  
 Checked - *[Signature]*  
 Approved - *[Signature]*

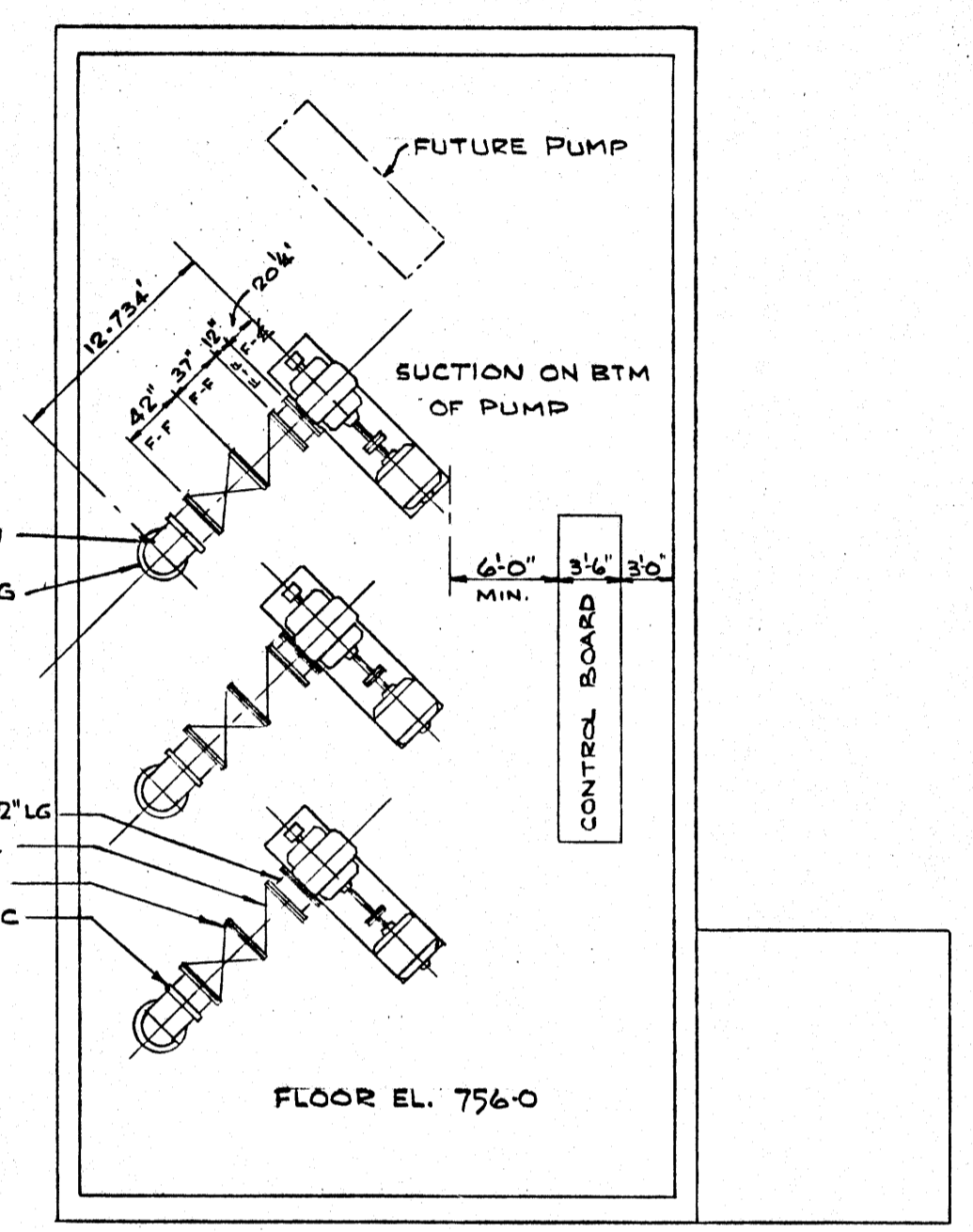
This drawing supersedes D. 492. Apr 28<sup>th</sup> 1918.

*W. E. Chace*  
 Chief Engineer

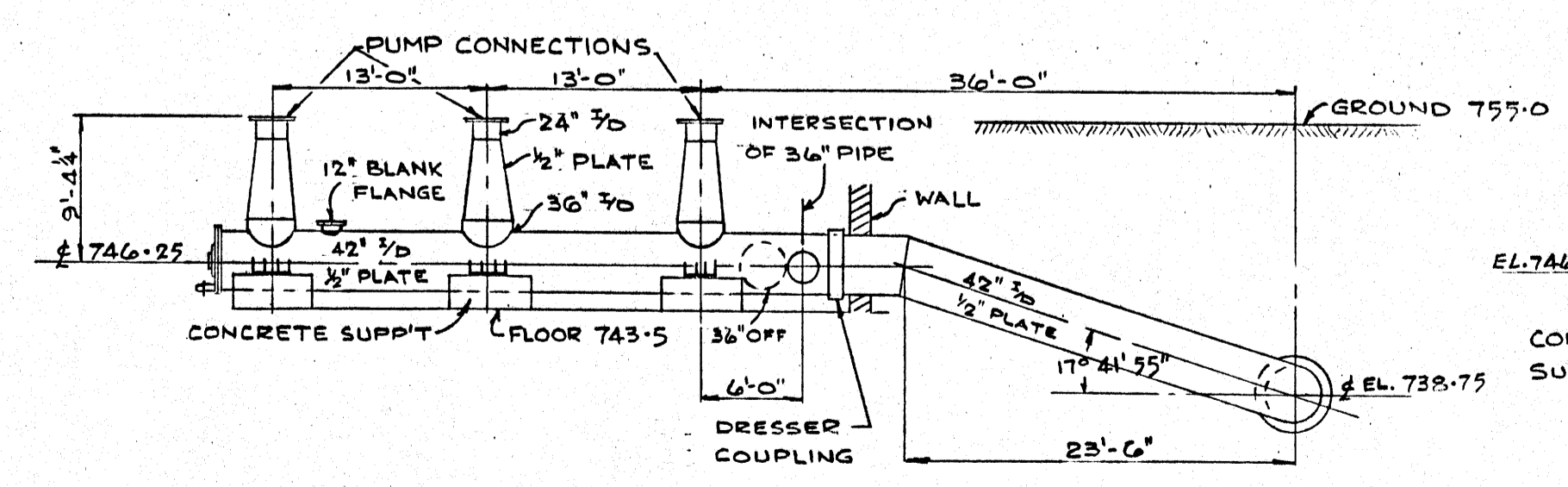
GREATER WINNIDEG WATER DISTRICT.  
 OUTSIDE MASONRY SHELL FOR PUMP WELL  
 DETAILS OF BRICK PANELLING. Scale: 1/4" = 1 Foot.  
 Date: Oct 12<sup>th</sup> 1918.



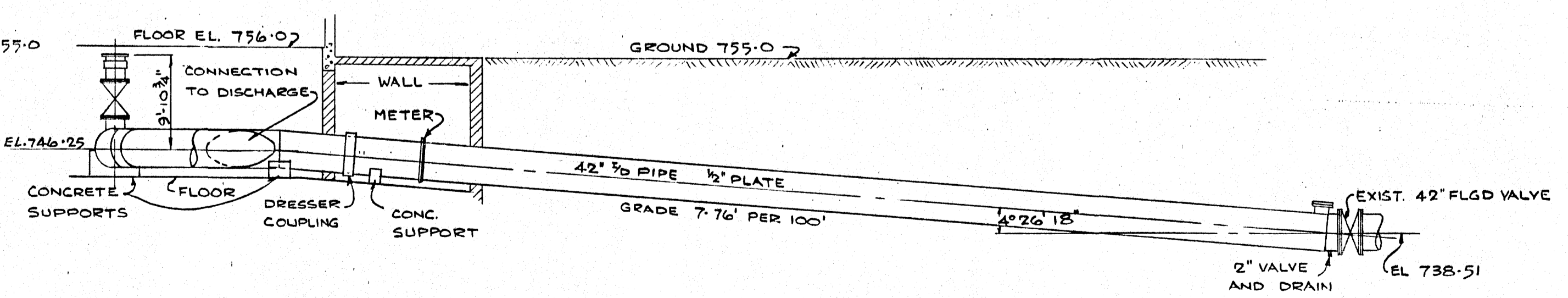
SHOW PIPING AS PER SKETCHES ATTACHED TO DRAWING D-627



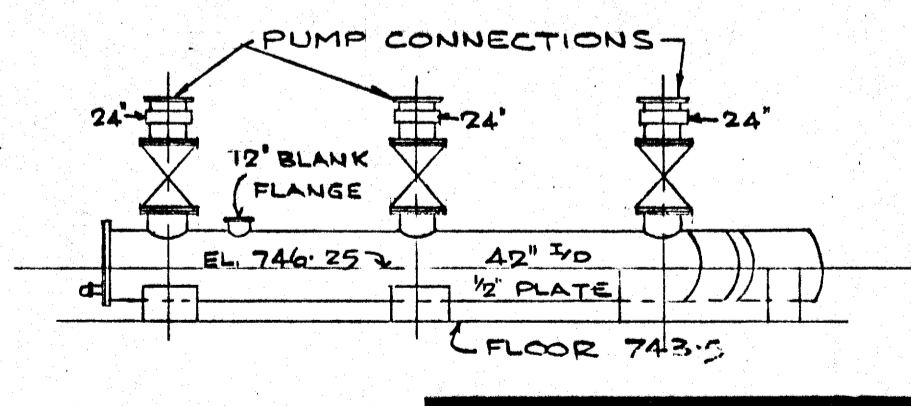
- 1 Pz 24" FLANGED C.I. PIPE 12" LG
- 1 24" FLANGED CHECK VALVE
- 1 24" FLANGED GATE VALVE
- 1 Pz 24" C.I. PIPE FL & VICTAULIC



DISCHARGE PIPING F-H



SUCTION PIPING B-E



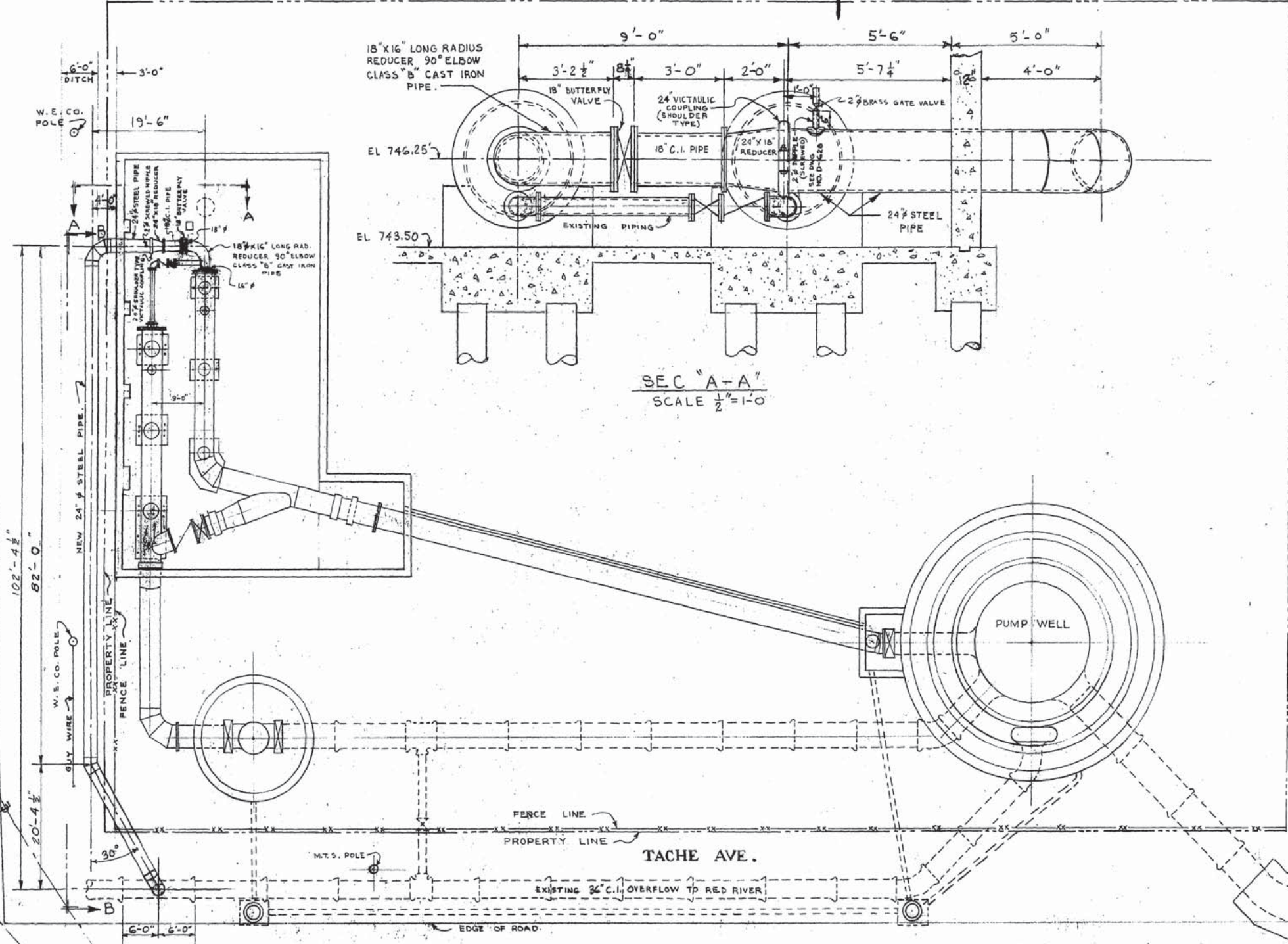
SUCTION LINE A-B

**The City of Winnipeg**  
Waterworks, Waste and Disposal Division

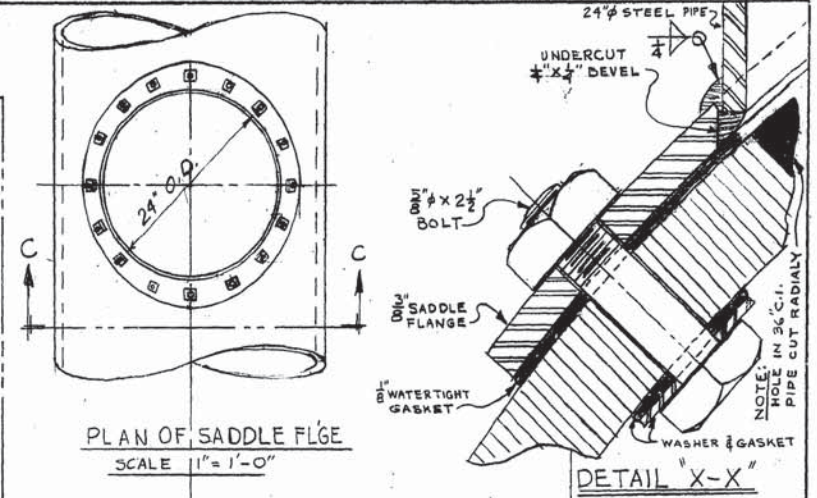
DWG NO CHANGED FROM 870  
**TACHE BOOSTER PUMPING STATION**  
GENERAL PIPING LAYOUT  
FOR ORIGINAL SEE DWG. OF SAME NUMBER

DESIGNED BY P.H.	DRAWN BY P.H.	SCALE N.T.S.
CHECKED BY [Signature]	DATE FEB. 1976	DRAWING NO. D-610
APPROVED BY [Signature]		

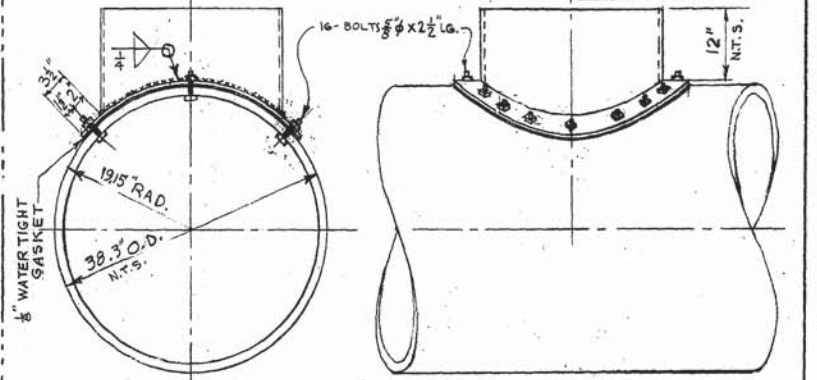
MESSAGE



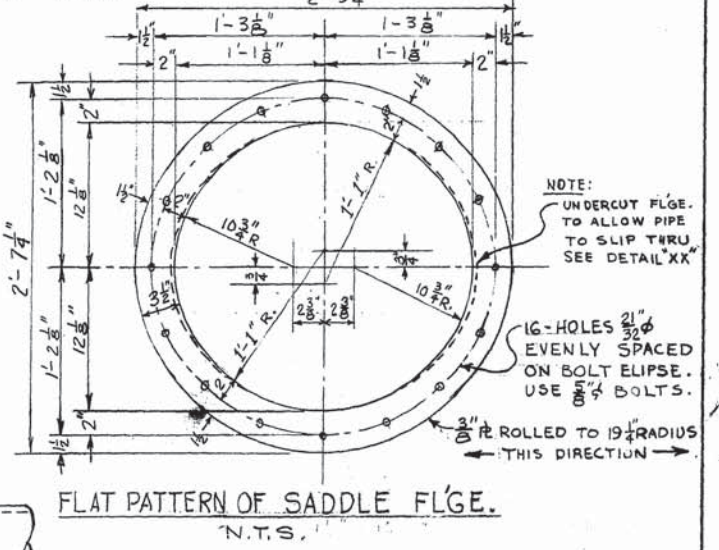
SEC "A-A"  
SCALE 1/2"=1'-0"



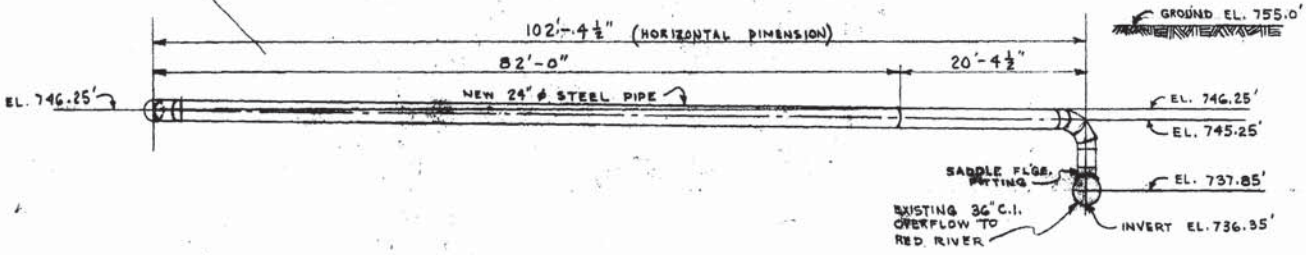
PLAN OF SADDLE FLG.  
SCALE 1"=1'-0"



SEC C-C  
N.T.S.  
SIDE VIEW  
SCALE 1"=1'-0"

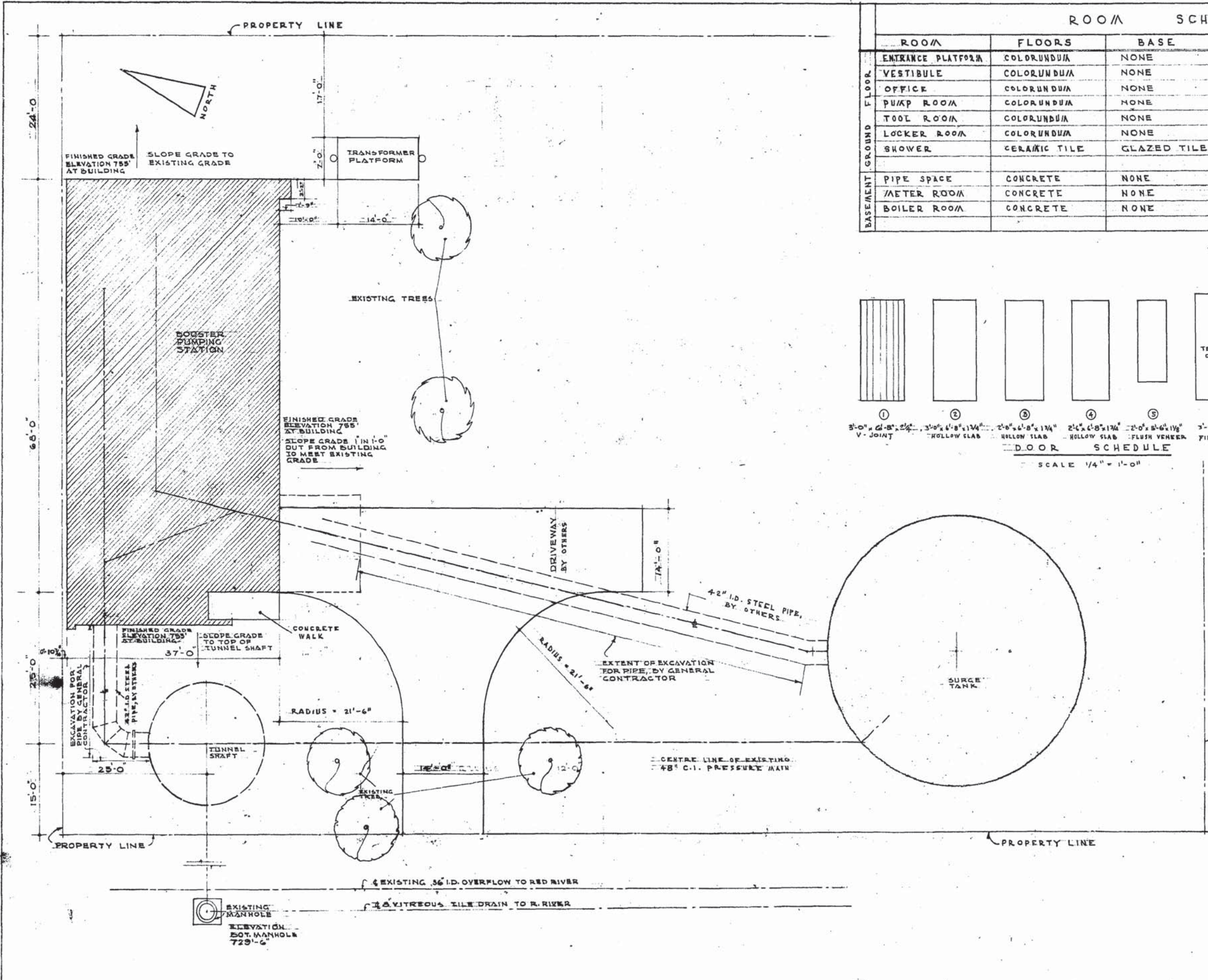


FLAT PATTERN OF SADDLE FLG.  
N.T.S.

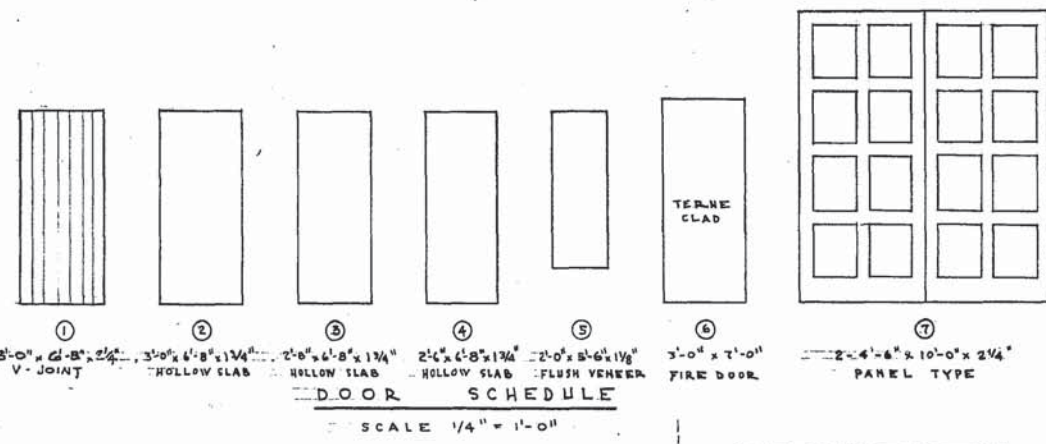


SEC "B-B"

GREATER WINNIPEG WATER DISTRICT		
DRAWN BY IB	DATE DEC 1955	TITLE OVERFLOW PIPING AT BOOSTER PUMPING STATION - ST. BONFACE
CHECKED BY CCS	APPROVED BY <i>[Signature]</i>	SCALE 1"=1'-0" AND AS NOTED
GENERAL MANAGER		DWG NO. D-627



ROOM SCHEDULE						
	ROOM	FLOORS	BASE	WALLS	CEILING	REMARKS
FLOOR	ENTRANCE PLATFORM	COLORUNDUM	NONE	ARCHITEX TILE	CONCRETE	
	VESTIBULE	COLORUNDUM	NONE	ARCHITEX TILE	CONCRETE	
	OFFICE	COLORUNDUM	NONE	ARCHITEX TILE	CONCRETE	
	PUMP ROOM	COLORUNDUM	NONE	ARCHITEX TILE & CEMENT PLASTER	HAYDITE TILE	
	TOOL ROOM	COLORUNDUM	NONE	ARCHITEX TILE	HAYDITE TILE	
	LOCKER ROOM	COLORUNDUM	NONE	ARCHITEX TILE	CONCRETE	
BASEMENT	SHOWER	COLORUNDUM	NONE	GLAZED TILE	CONCRETE	CURB ALSO OF CERAMIC TILE
	PIPE SPACE	CONCRETE	NONE	CONCRETE	CONCRETE	
	METER ROOM	CONCRETE	NONE	CONCRETE	CONCRETE	
	BOILER ROOM	CONCRETE	NONE	CONCRETE	CONCRETE	

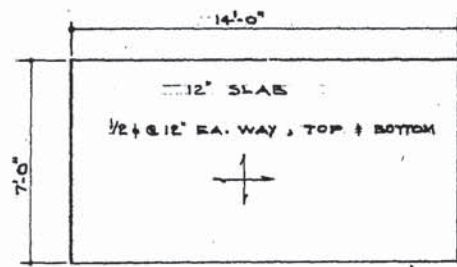


ELECTRICAL SCHEDULE	
---	CONDUIT
□	CEILING OUTLET
□	FLUORESCENT OUTLET
□	WALL OUTLET
□	SWITCH
□	DUPLEX RECEPTACLE
□	5" SQUARE RECEPTACLE
□	TELEPHONE OUTLET
□	MOTOR OUTLET
□	PLUG & OUTLET
□	DUPLEX PLUG & SWITCH
□	PULL CHAIN
□	PRIVATE TELEPHONE LINE OUTLET
□	ALARM SYSTEM OUTLET
□	CLOCK OUTLET
□	THERMOSTAT

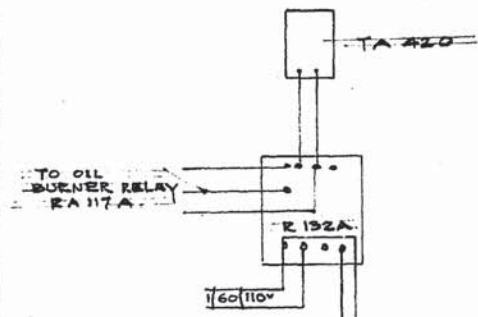
MATERIAL SCHEDULE	
□	CONCRETE
□	BRICK
□	CLAY TILE
□	ARCHITEX TILE

NOTE:  
C.W.W.D PIPING PLAN NO D610  
HEREIN ATTACHED FOR  
GENERAL INFORMATION ONLY

<b>BOOSTER PUMPING STATION</b>		DRAWN BY E.A.L. G.W.R.
COR. TACHE AVE & MANAGER ST., ST. BONIFACE MAN.		CHECKED G.B.
FOR GREATER WINNIPEG WATER DISTRICT		SCALE 1" = 10'-0"
PLOT PLAN		DATE 26 AUG. 1949
GREEN BLANKSTEIN RUSSELL AND ASSOCIATES ARCHITECTS AND ENGINEERS WINNIPEG, MANITOBA.		FILE 4846
		SHEET NO. 1



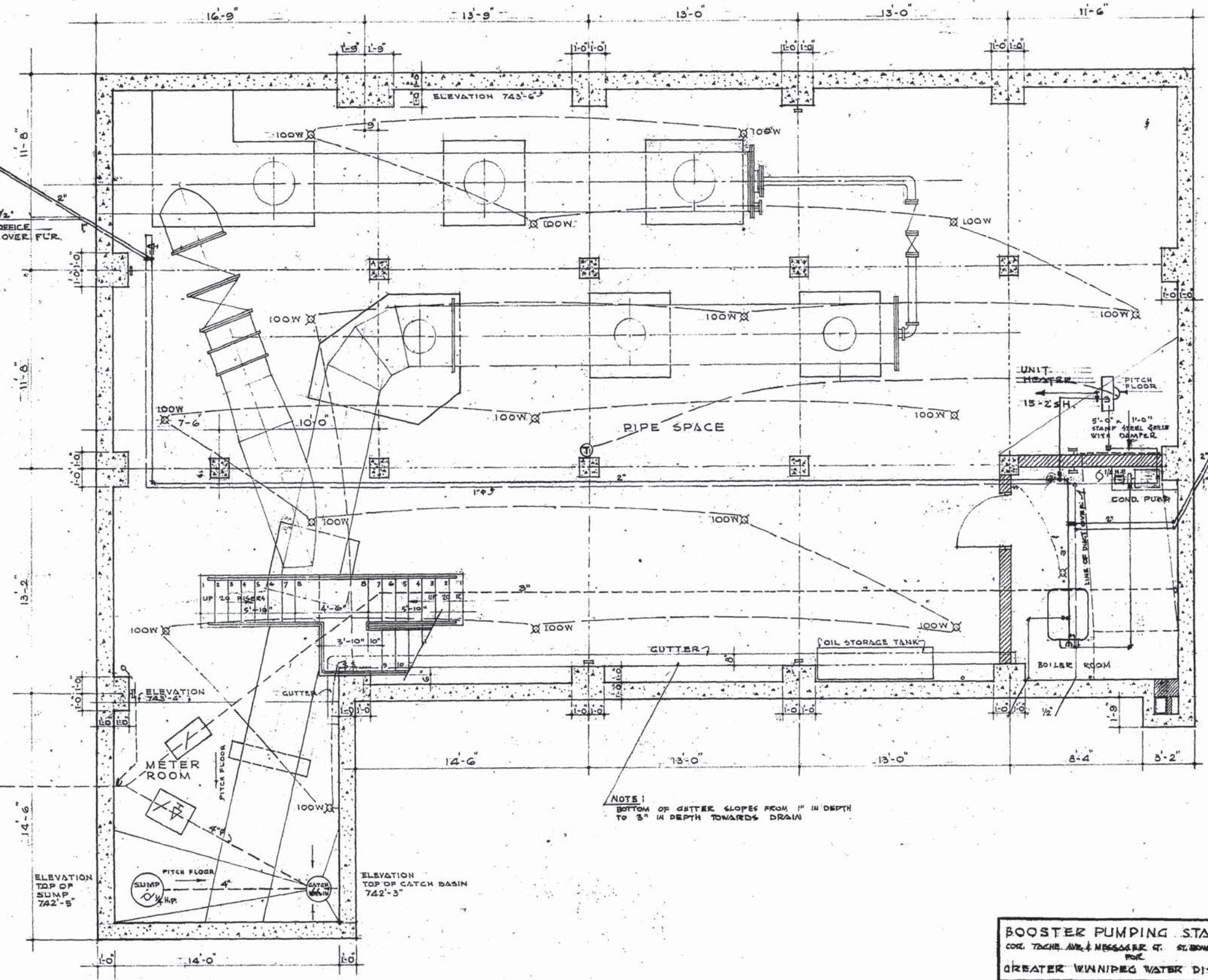
TRANSFORMER PLATFORM  
SCALE - 1/4" = 1'-0"



TYPICAL UNIT HEATER CONTROL.  
(3 REQUIRED)  
HEATING CONTROL

TO RADIATOR IN OFFICE  
SUPPLY & RETURN OVER F.P.R.

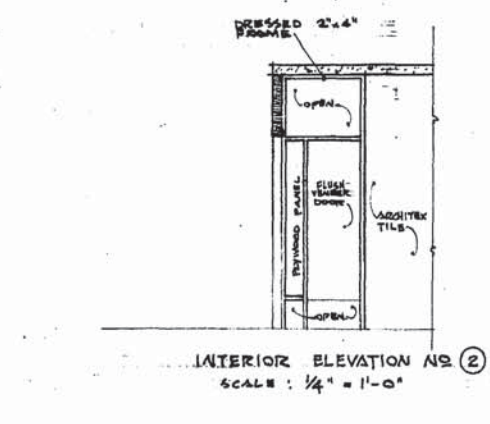
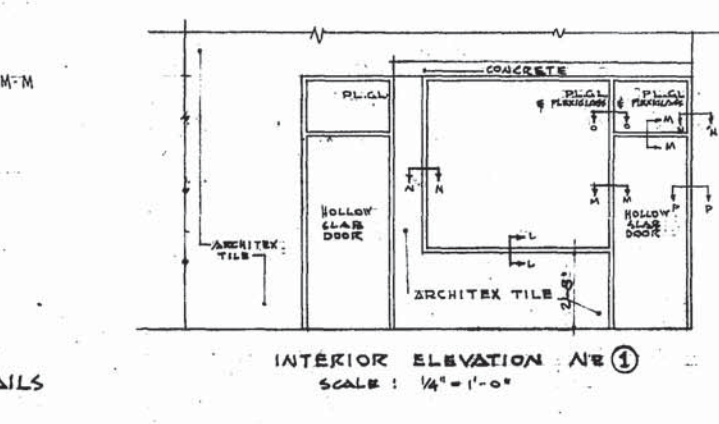
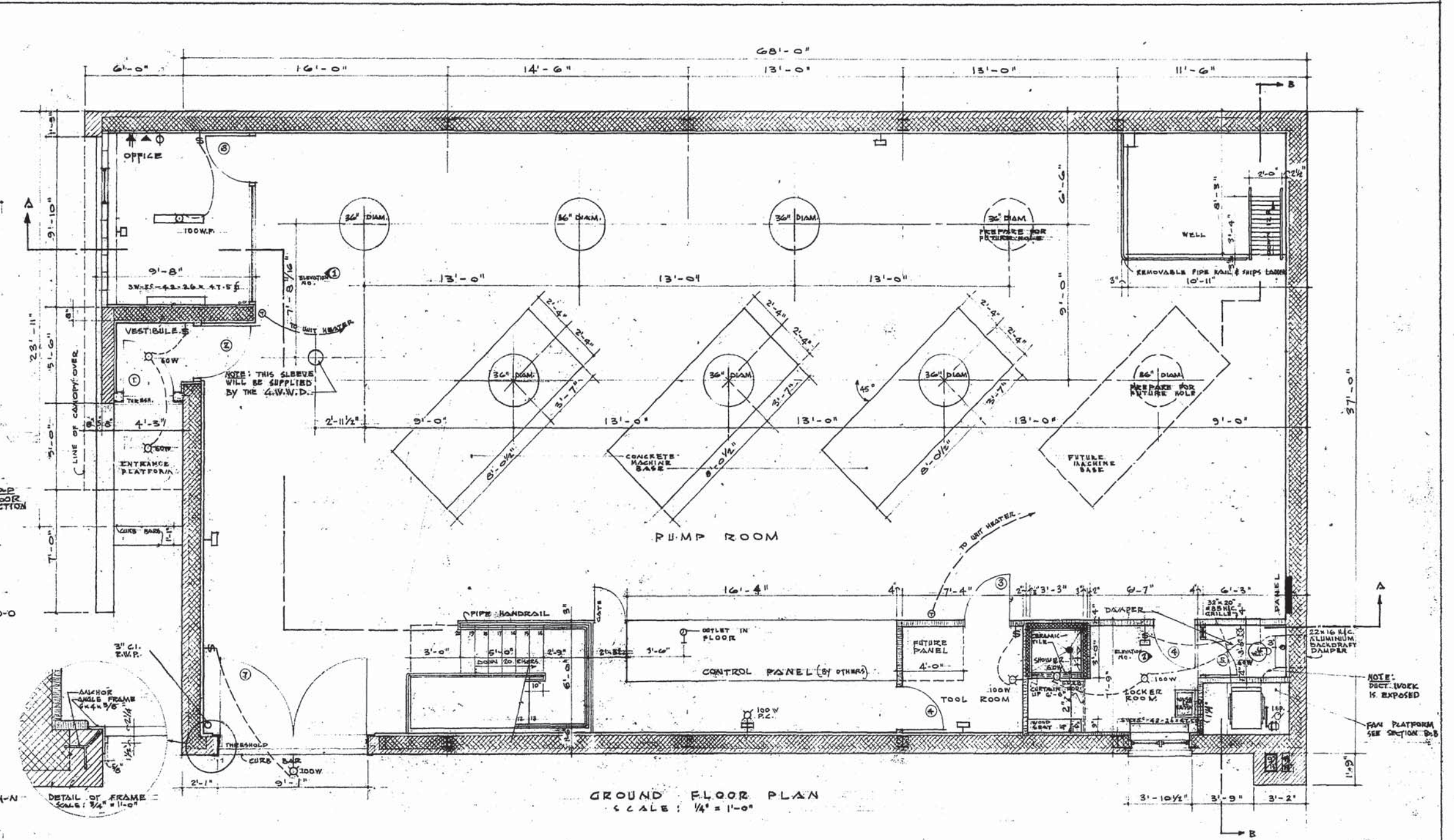
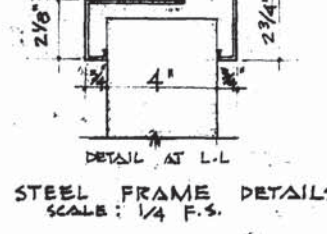
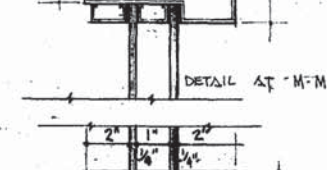
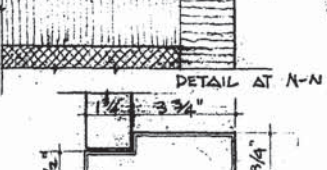
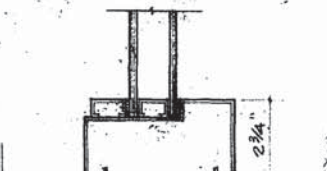
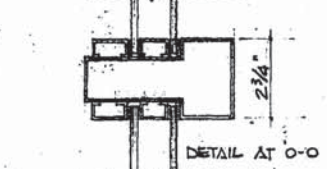
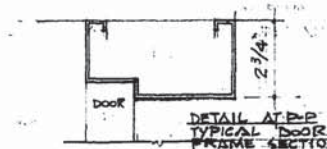
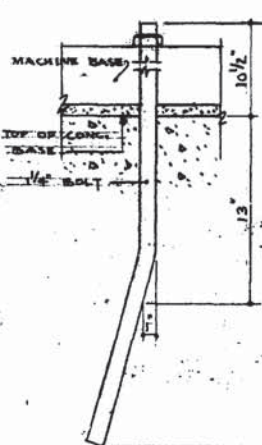
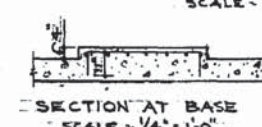
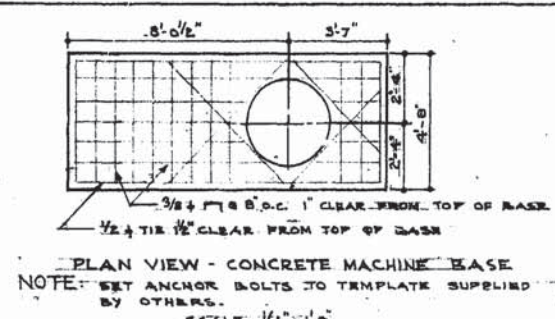
SEE PLOT PLAN, 1/8" C.I.



NOTE:  
BOTTOM OF GUTTER SLOPES FROM 1" IN DEPTH  
TO 3" IN DEPTH TOWARDS DRAIN

<b>BOOSTER PUMPING STATION</b>		DRAWN BY
COR. TACHE AVE. & MESSENGER ST. ST. BONIFACE MAN. DIST.		E.A.L. M.B.
GREATER WINNIPEG WATER DISTRICT		CHECKED
BASEMENT FLOOR PLAN		G.B.
GREEN BLANKSTEIN RUSSELL AND ASSOCIATES ARCHITECTS AND ENGINEERS WINNIPEG, MANITOBA.		SCALE
		1/4" = 1'-0"
		DATE
		APR. 26. 49
		FILE
		4946
		SHEET NO.
		3

D-629-3



<b>BOOSTER PUMPING STATION</b>		DRAWN BY	M.S.
COR. TACHE AVE. & MESSENGER ST. ST. BONIFACE MAN. FOR		CHECKED	C.B.
GREATER WINNIPEG WATER DISTRICT		SCALE	1/4" = 1'-0"
GROUND FLOOR PLAN		DATE	AUG. 26, 49
GREEN BLANKSTEIN RUSSELL AND ASSOCIATES		FILE	4946
ARCHITECTS AND ENGINEERS		SHEET NO.	4
WINNIPEG, MANITOBA.			

ELEVATION TOP OF PARAPET  
777'-1 1/2"

ELEVATION TOP OF BEAM  
774'-7 1/2"

CEMENT PLASTER

ELEVATION TOP OF CRANE BEAM 770'-10"

CRANE RAIL

ELEVATION 765'-2 7/8"

ELEVATION 764'-3"

ELEVATION 756'-0 1/2"

FINISHED GRADE AT BUILDING  
ELEVATION 755'

EXISTING GRADE

EXISTING GRADE

CONTINUOUS DRAIN ON UNDERSIDE OF CANOPY

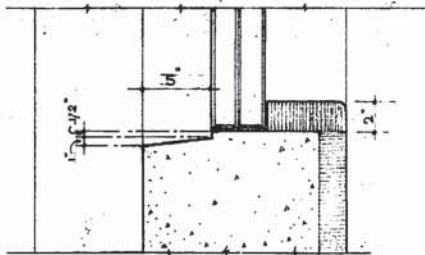
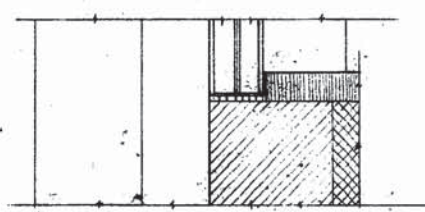
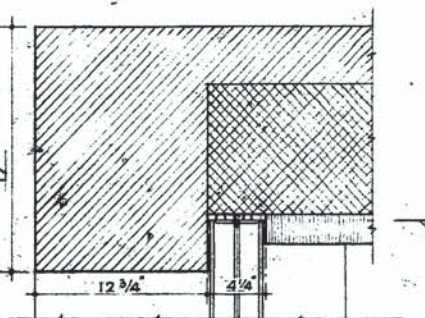
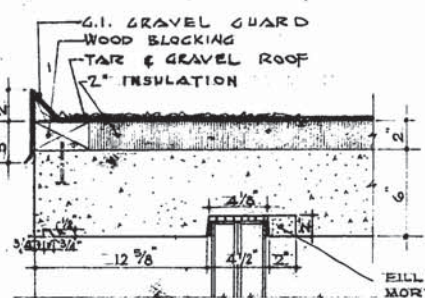
FILL WITH CEMENT-MORTAR AFTER GLASS BLOCK IS PLACED

HEAD

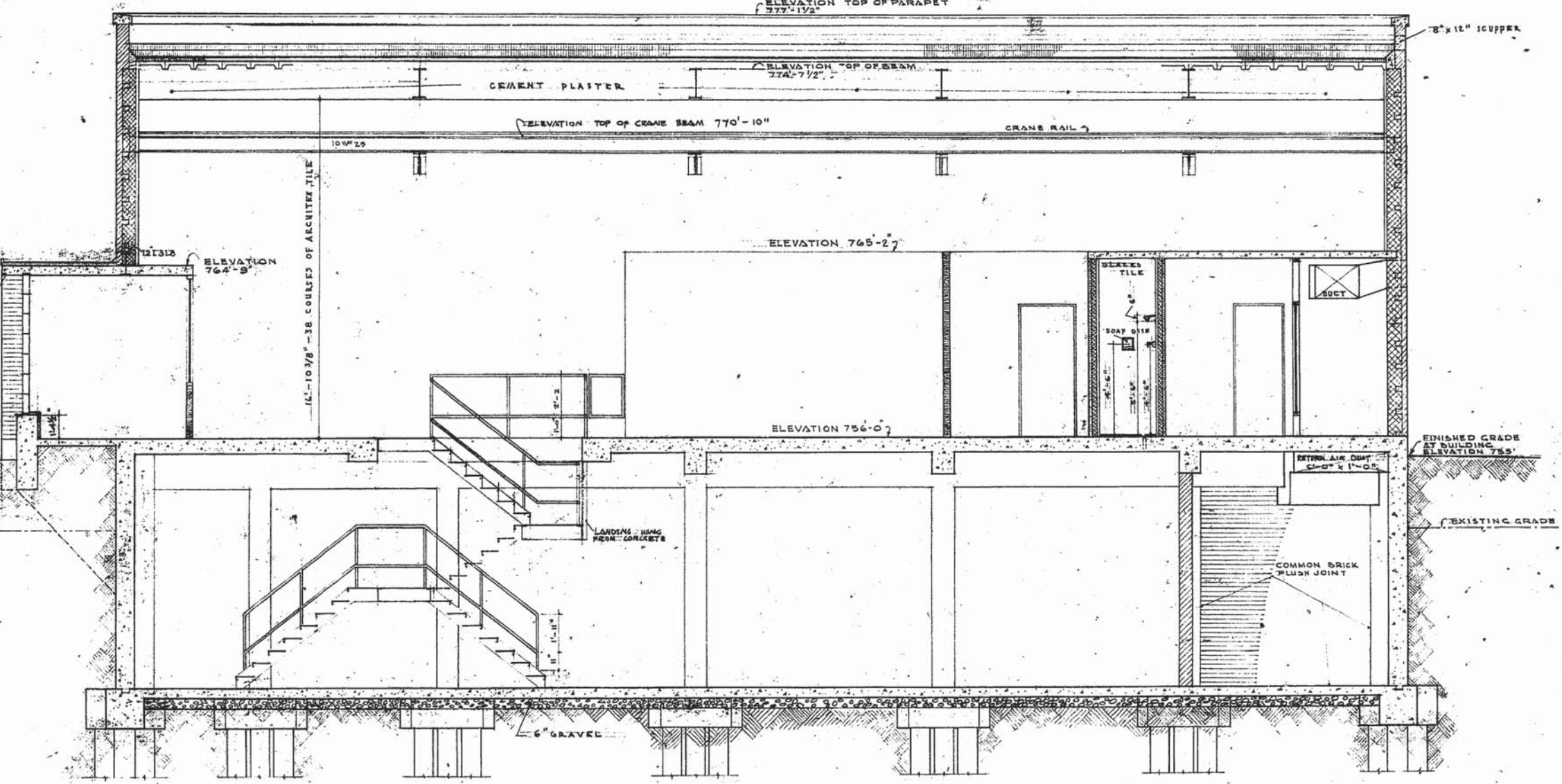
JAMB

JAMB

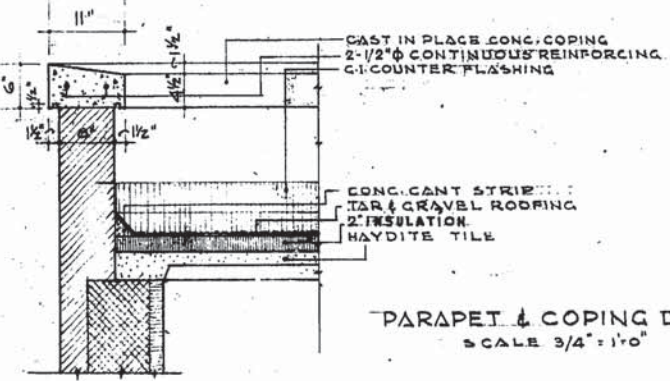
SILL



DETAIL OF GLASS BLOCK PANEL IN OFFICE  
SCALE 1/2" = 1'-0"



SECTION A-A  
SCALE 1/4" = 1'-0"



PARAPET & COPING DETAIL  
SCALE 3/4" = 1'-0"

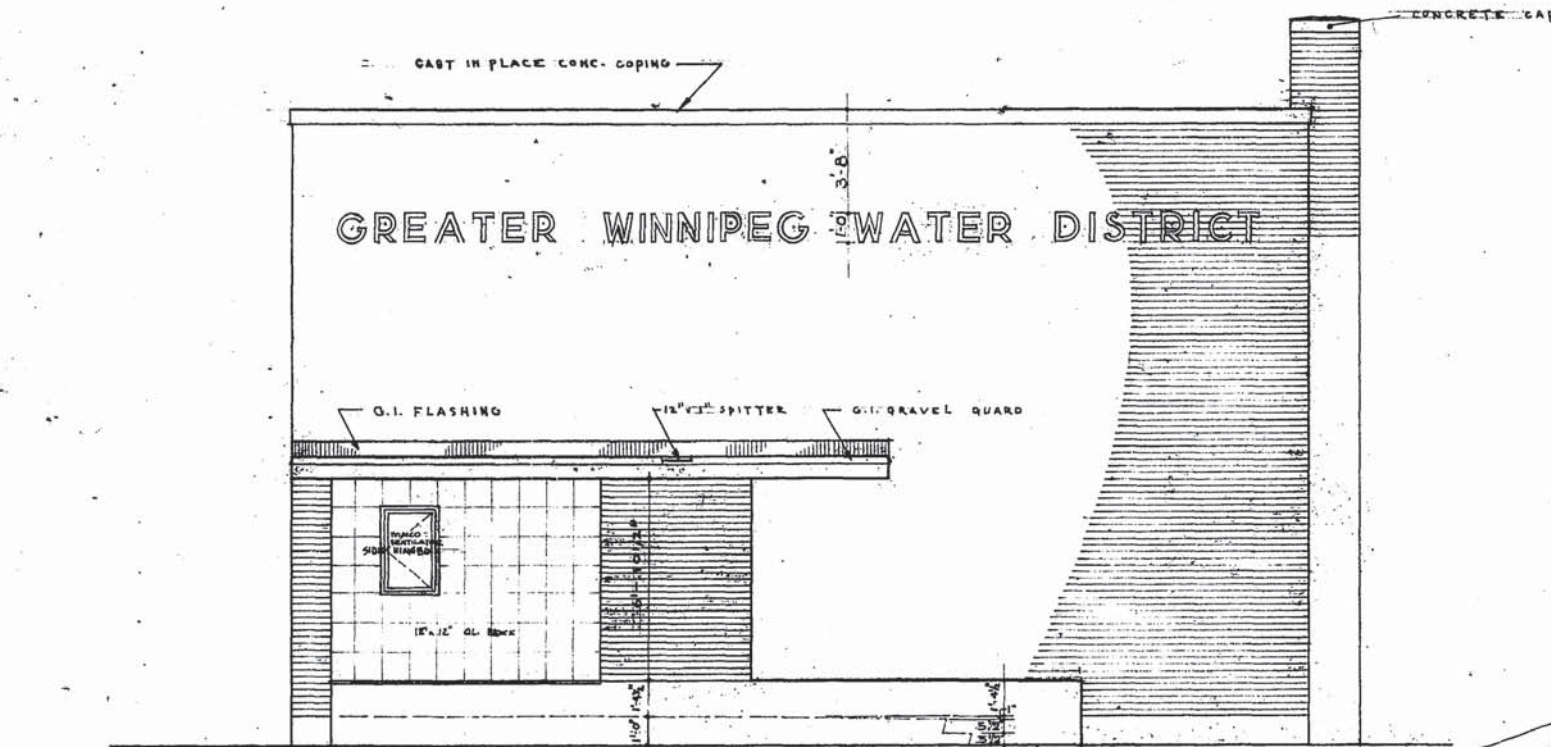
BOOSTER PUMPING STATION  
COR. TACHE AVE. & MESSAGERS ST. ST. BONIFACE MAN.  
FOR  
GREATER WINNIPEG WATER DISTRICT  
LONGITUDINAL SECTION  
GREEN BLANKSTEIN RUSSELL AND ASSOCIATES  
ARCHITECTS AND ENGINEERS  
WINNIPEG, MANITOBA

DRAWN BY  
M.B.  
CHECKED  
C.B.  
SCALE  
AS NOTED  
DATE  
AUG. 26, 49  
FILE  
4046  
SHEET NO.  
6

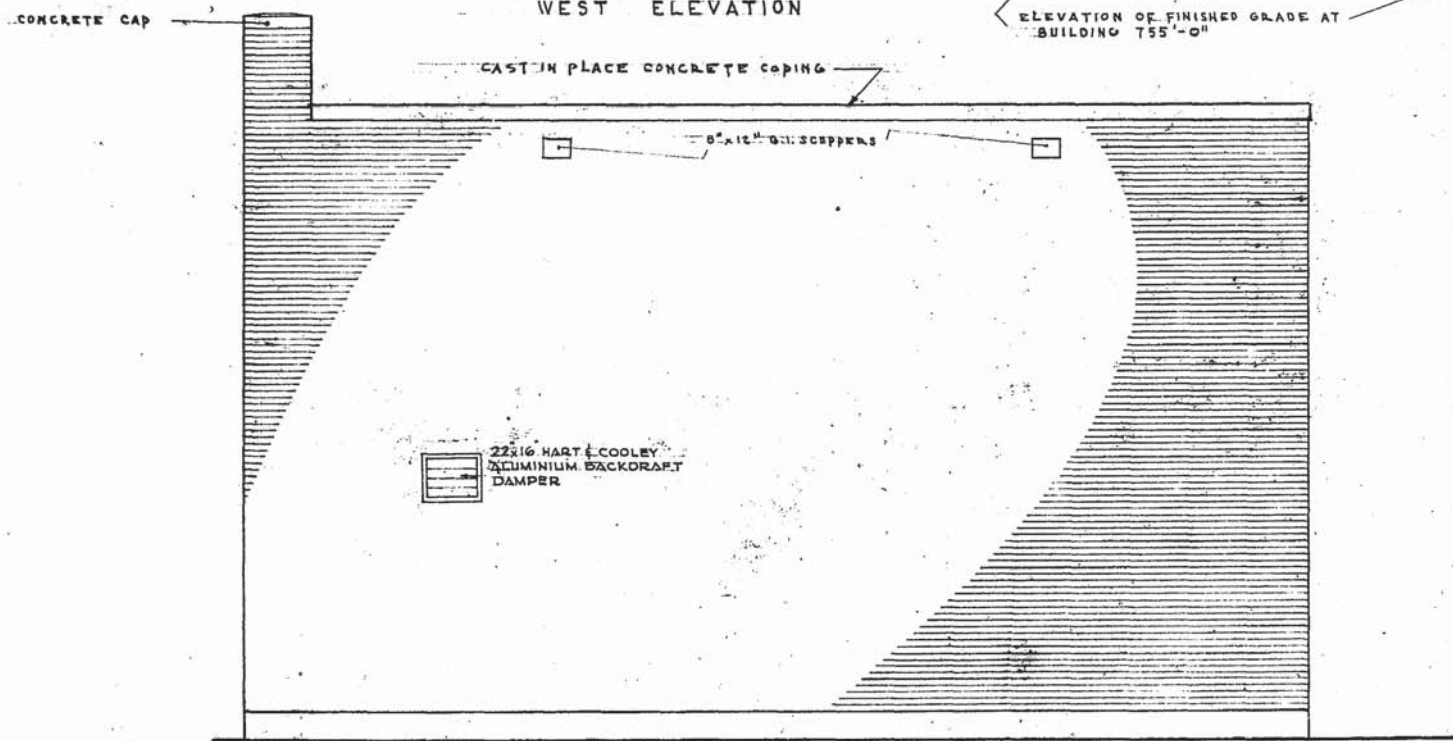
D-629-6



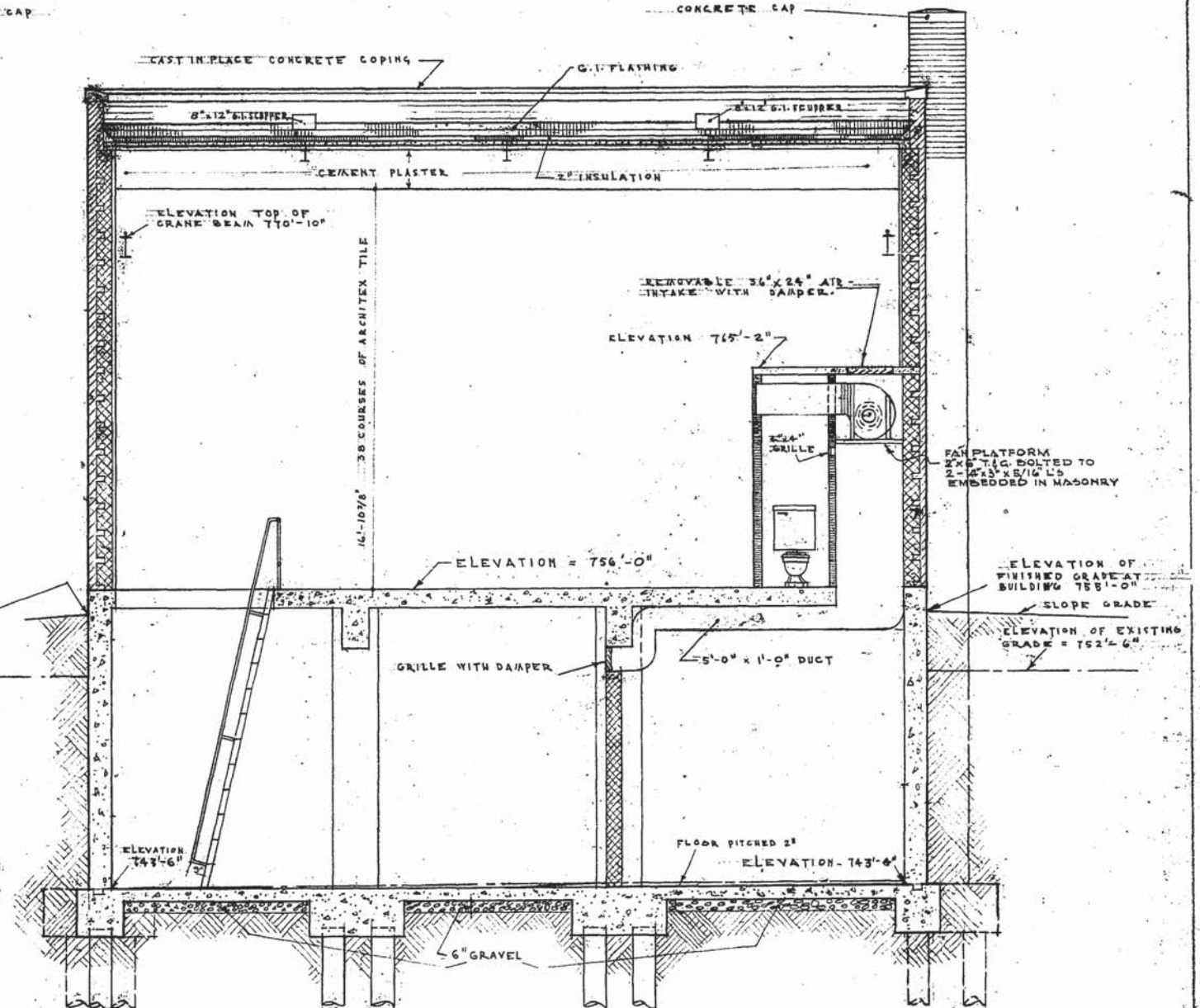
# GREATER WINNIPEG WATER DISTRICT



WEST ELEVATION

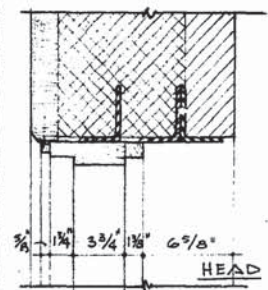


EAST ELEVATION

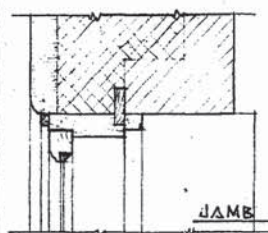


SECTION B-B

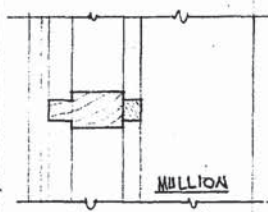
<b>BOOSTER-PUMPING STATION</b>		DRAWN BY E.A.L., G.W.P.
COR. TACKE AVE & MESSENGER ST., ST-BONIFACE MAN. FOR GREATER WINNIPEG WATER DISTRICT		CHECKED AS
GREEN BLANKSTEIN RUSSELL AND ASSOCIATES ARCHITECTS AND ENGINEERS WINNIPEG, MANITOBA.		SCALE 1/4" = 1'-0"
CROSS-SECTION & END ELEVATIONS		DATE 26 AUG. 1949
FILE 4946		SHEET NO. 7



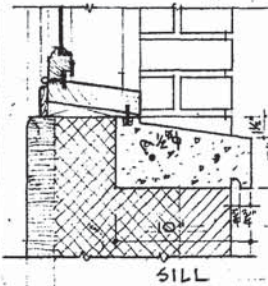
HEAD



JAMB

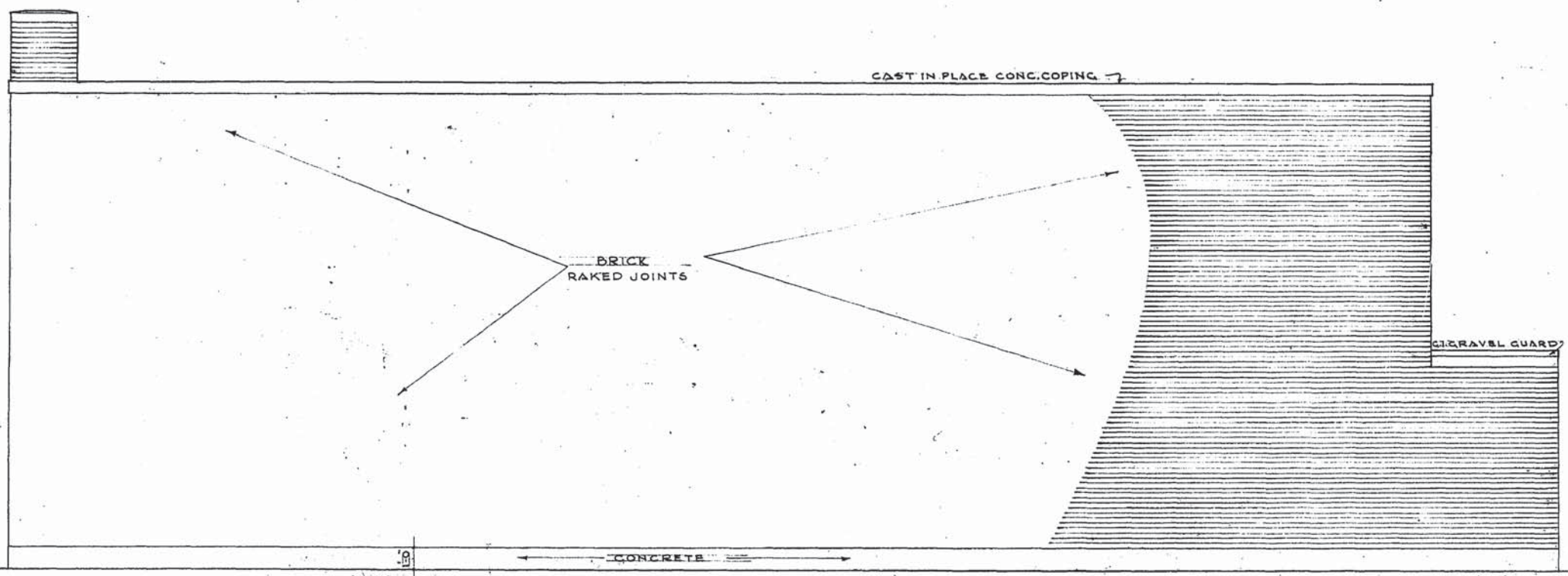


MULLION

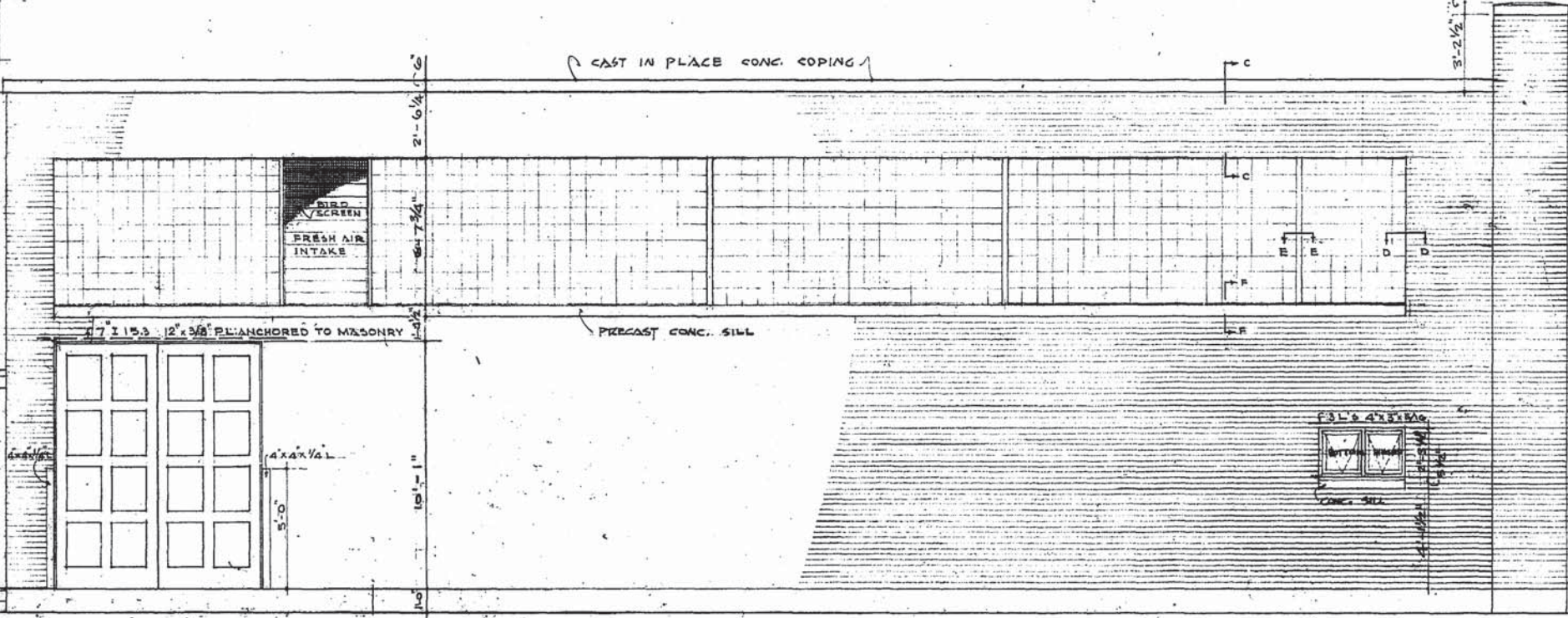


SILL

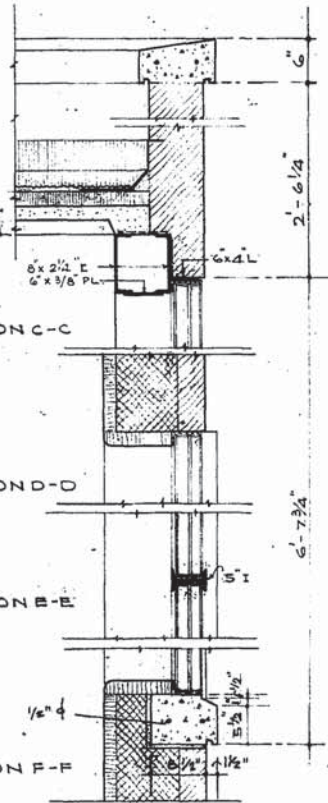
LOCKER ROOM WINDOW DETAILS  
SCALE: 1/8" = 1'-0"



NORTH ELEVATION



SOUTH ELEVATION



SECTION C-C  
SECTION D-D  
SECTION E-E  
SECTION F-F

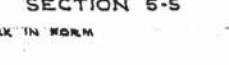
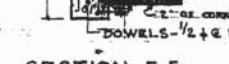
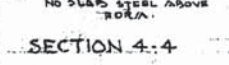
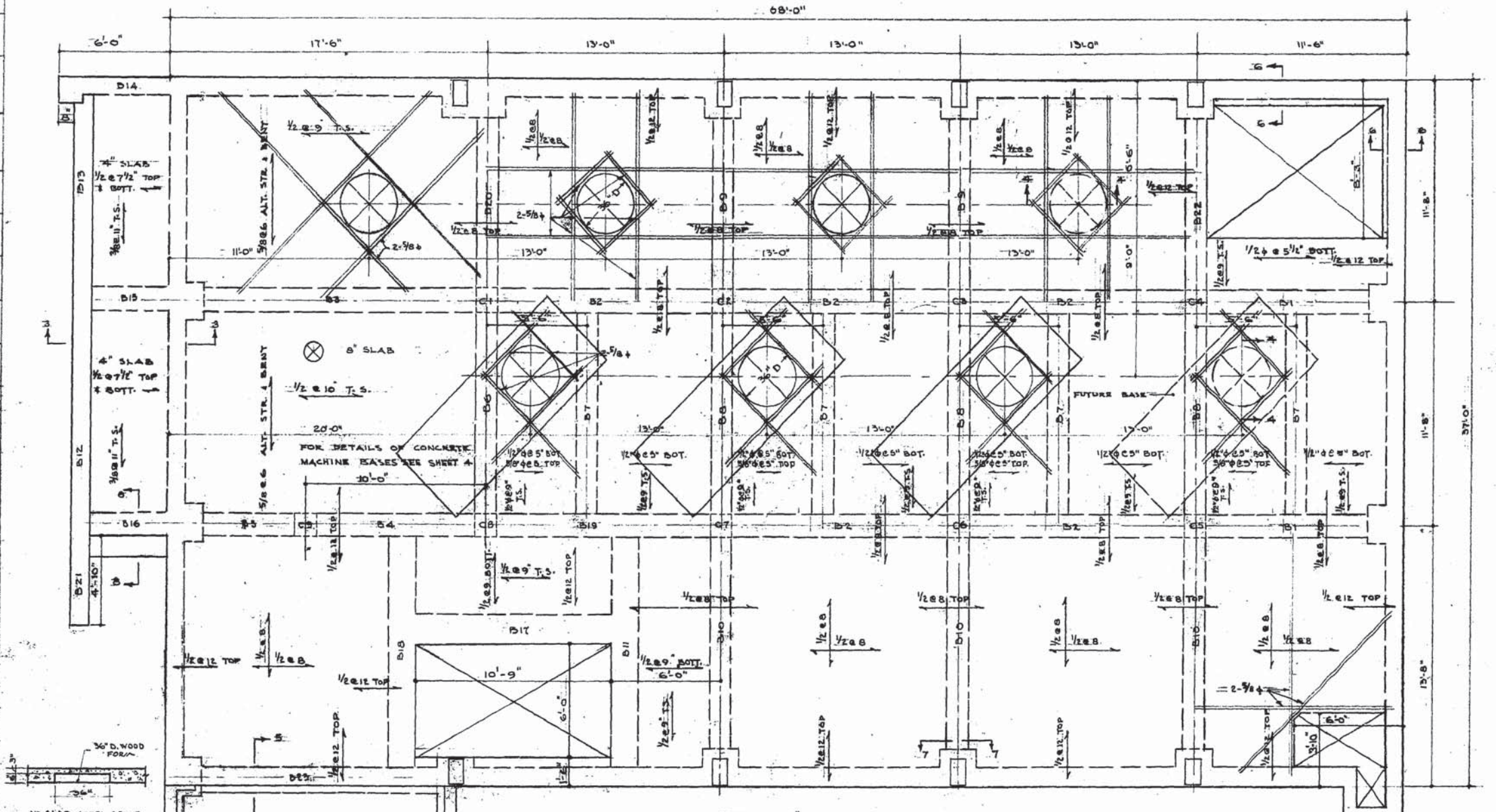
DETAILS  
SCALE: 3/4" = 1'-0"

<b>REVISIONS</b> OCT. 24, 1948 SECTION F-F	<b>BOOSTER PUMPING STATION</b> COR. TACHE AVE. & MESSENGER ST. ST-BONIFACE MAN. FOR <b>GREATER WINNIPEG WATER DISTRICT</b>	<b>DRAWN BY</b> M.B. E.A.L. <b>CHECKED</b> C.B. <b>SCALE</b> 1/2" = 1'-0" <b>DATE</b> AUG. 26, 49 <b>FILE</b> 4940 <b>SHEET NO.</b> 8
<b>SIDE ELEVATIONS</b>		
<b>GREEN BLANKSTEIN RUSSELL AND ASSOCIATES</b> ARCHITECTS AND ENGINEERS WINNIPEG, MANITOBA.		

BEAM SCHEDULE				REMARKS
MARK	SIZE	REINFORCING		
B1	14	4 7/8	STR.	TOP FROM PILASTER TO 1/4 PT. B2 3E8, 2E12 EA. END
		10 3/8		
B2	14	4 3/4	STR.	BOTTOM TOP C6, C9, C2, TO 1/4 PT. ADJ. SPANS 6E6, 3E8 EA. END
		18 3/8		
B3	14	2 7/8	STR.	BOTTOM TO END B15 BOTTOM TO END B15
		12 1/2		
B4	14	4 3/4	STR.	TOP C8, TO 1/4 PT. ADJ. SPANS 1E8, 2E12, WEST END 2E4, 3E6, EAST END
		5 3/8		
B5	14	4 3/8	STR.	BOTTOM TO END B16 TOP END B16, TO 1/4 PT. B4, 12" OC.
		5 3/8		
B6	14	3 3/8	STR.	BOTTOM TOP AT C8 1E8, 2E12, EA. END
		6 3/8		
B7	14	3 7/8	STR.	BOTTOM TOP 3 EA. END 2E8, 2E12, EA. END
		6 7/8		
B8	14	3 3/4	STR.	BOTTOM TOP, C2, C3, C4, C5, C6, C7, 1E6, 2E8, 2E12 EA. END
		10 1/2		
B9	14	3 3/8	STR.	BOTTOM TOP AT PILASTER 3E12 EA. END
		6 3/8		
B10	14	4 3/8	STR.	BOTTOM TOP AT EXTERIOR WALL 3E12 EA. END
		6 3/8		
B11	14	4 1	STR.	BOTTOM TOP 2 EA. END 3E8, 2E12, EA. END
		10 3/8		
B12	14	4 3/4	STR.	BOTTOM TO END B21 TOP AT BIG FROM END B21 TO 1/4 PT. B13, 3E12 EA. END
		6 3/8		
B13	14	4 3/4	STR.	BOTTOM AT B14 3E12 EA. END
		6 3/8		
B14	14	5 3/8	STR.	TOP TO ADJPT. B3, BOTT. STEEL FROM B3 BOTTOM STEEL FROM B5
		10 3/8		
B15	14	4 3/8	STR.	BOTTOM TOP 2 EA. END 4E8 EA. END
		6 3/8		
B16	14	4 1	STR.	BOTTOM TOP 2 EA. END 1E6, 1E8, 3E12 EA. END
		10 3/8		
B17	14	4 3/4	STR.	BOTTOM TOP C7 TO 1/4 PT. ADJ. SPANS 2E4, 3E6, EA. END
		10 3/8		
B18	14	3 3/8	STR.	BOTTOM TOP C1 TO END B20 3E12 EA. END
		6 3/8		
B19	14	4 3/4	STR.	BOTTOM FROM B12 TOP FROM B12 12" OC.
		10 3/8		
B20	14	4 3/8	STR.	BOTTOM TOP AT PILASTER 3E12 EA. END
		6 3/8		
B21	14	4 7/8	STR.	BOTTOM TOP 2 EA. END 2E8, 2E12 EA. END
		10 3/8		

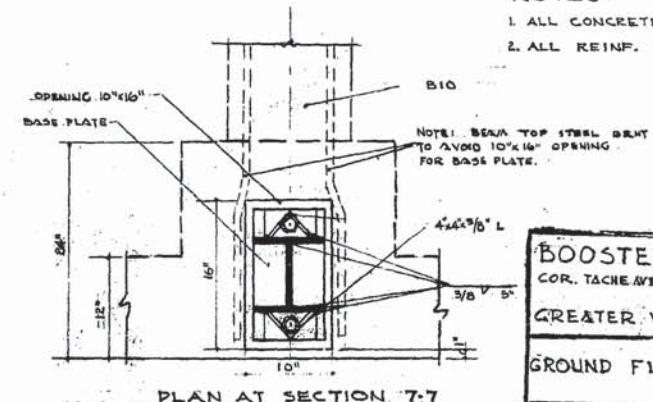
**NOTES RE. FUTURE MACHINE BASE.**

1. PROVIDE 1/2" SOCKET INSERTS AT 6" OC. EA. WAY OVER THE ENTIRE AREA OF FUTURE BASE. THE OPEN END OF THE SOCKET TO BE PLUGGED AND SET 3/4" BELOW SURFACE OF SLAB.
2. PROVIDE ANCHOR BOLTS IN THE SAME POSITION AS IN PRESENT MACHINES, TOP OF BOLT TO BE CUT OFF 3/4" BELOW SURFACE OF SLAB.



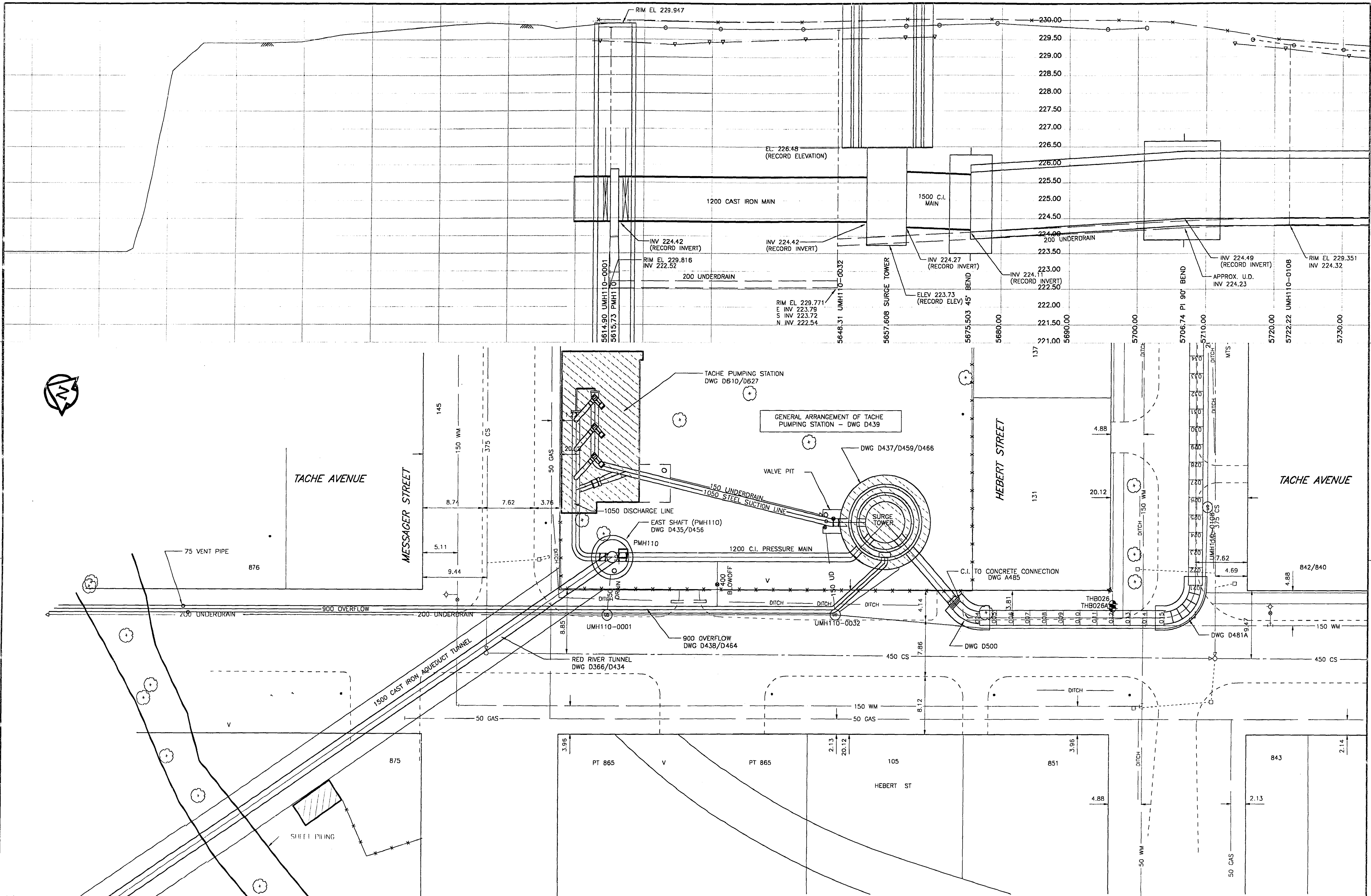
ALL SLABS 9" EXCEPT AS SHOWN

- NOTES:**
1. ALL CONCRETE SHALL BE OF 2500\* STRENGTH.
  2. ALL REINF. BARS ROUND EXCEPT AS SHOWN.



<b>BOOSTER PUMPING STATION</b>		DRAWN BY A.G. E.L.L.
COR. TACHEVE / MESSAGER ST. ST. BONIFACE MAN.		CHECKED J.W.
FOR GREATER WINNIPEG WATER DISTRICT		SCALE 1/4" = 1'-0"
<b>GROUND FLOOR FRAMING PLAN</b>		DATE 22.10.1949
GREEN BLANKSTERN RUSSELL AND ASSOCIATES ARCHITECTS AND ENGINEERS WINNIPEG, MANITOBA		FILE 4-946 SHEET NO 9

D-629-9



150 mm WM	WATERMAIN	300 mm LDS	LAND DRAINAGE SEWER	HYDRO	100	AQUEDUCT JOINT	AQUEDUCT PIPE
HYDRANT	WASTE WATER SEWER	250 mm WWS	WASTE WATER SEWER	COMMUNICATION	UNDERDRAIN MANHOLE	UNDERDRAIN	UNDERDRAIN
VALVE	MANHOLE		MANHOLE	TRAFFIC SIGNALS	UNDERDRAIN RISER	GROUNDLINE	GROUNDLINE
REDUCER	CATCH BASIN		CATCH BASIN	PEDESTAL	UNDERDRAIN WELL	CENTERLINE	CENTERLINE
COUPLING	CURB INLET		CURB INLET	SIGNAL CONTROLLER	TESTHOLE	N/W GUTTER	N/W GUTTER
WM FITTINGS	CULVERT		CULVERT	GAS	PEIZOMETER	S/E GUTTER	S/E GUTTER
CURB STOP	DITCH		DITCH	STEAM HEAT		N/W DITCH	N/W DITCH
EDGE OF PAVEMENT	LAMP STANDARD		LAMP STANDARD	FENCE		S/E DITCH	S/E DITCH
RAILWAY TRACK	TRAFFIC SIGNAL		TRAFFIC SIGNAL	TREE		N/W PROPERTY LINE	N/W PROPERTY LINE
GEODETIC BENCHMARK	WOOD POLE		WOOD POLE	BUILDING		S/E PROPERTY LINE	S/E PROPERTY LINE
SURVEY BAR	POLE ANCHOR		POLE ANCHOR	SUBSURFACE STRUCTURE			
EXISTING	LEGEND - PLAN	EXISTING	LEGEND - PLAN	EXISTING	LEGEND - PLAN	EXISTING	LEGEND - PROFILE

NO.	REVISIONS	DATE	BY
<b>DATA SOURCES</b> Aqueduct Joints: Interpreted From Manholes Located in 1994 UMA Total Station Survey and 1995 Internal Inspections Unless Otherwise Noted Surface Features: UMA Total Station Survey (1994) Legal Right of Way M12 to M17: Pollock & Wright (1994) Legal Right of Way M12 to M17: Pollock & Wright (1995) Utilities: Compiled from Information Obtained from City of Winnipeg Underground Structures (1994)			
<b>METRIC</b> WHOLE NUMBERS INDICATE MILLIMETRES DECIMALIZED NUMBERS INDICATE METRES			

**UMA**  
UMA Engineering Ltd.  
Engineers and Planners

**CASS**  
CH2M GORE & STORRIE LIMITED

DESIGNED BY	BC	CHECKED BY	CCM
DRAWN BY	BC/MAG	APPROVED BY	CCM
HOR. SCALE:	1:250	RELEASED FOR CONSTRUCTION	
VERTICAL:	1:50		
DATE		DATE	

ENGINEER'S SEAL

PROVINCE OF MANITOBA

07 Dec 99

C.C. MACEY

REGISTERED ENGINEER

CONSULTANT DRAWING NO. 25  
41-02-D265-136-01

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

**Plan and Profile of  
Branch I Aqueduct**

From Joint J110-001 To Joint J110-034  
From Mile 3.54 To Mile 3.58

SHEET 25 OF 214  
CITY DRAWING NUMBER  
**D-6303** REV