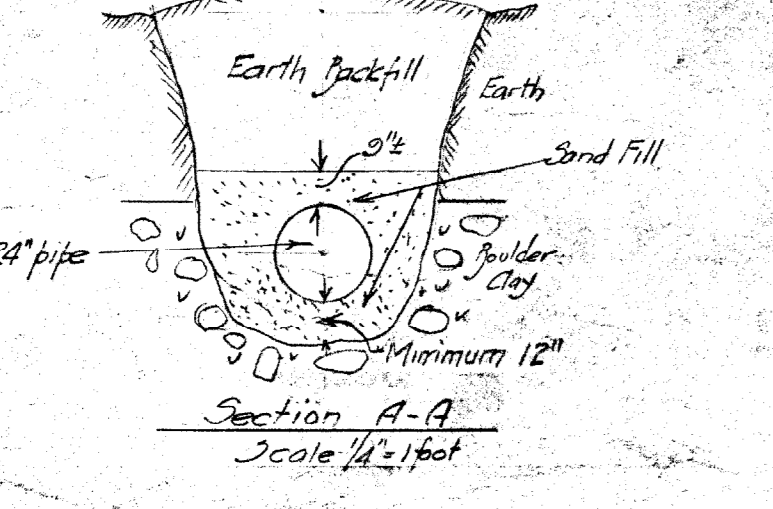
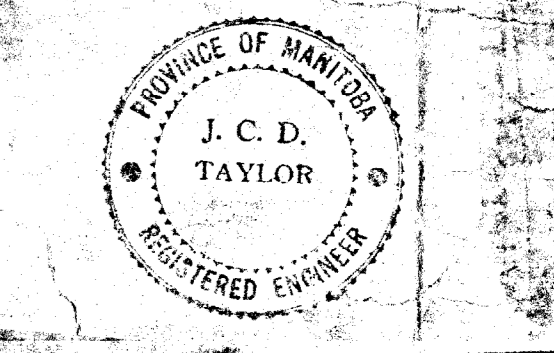


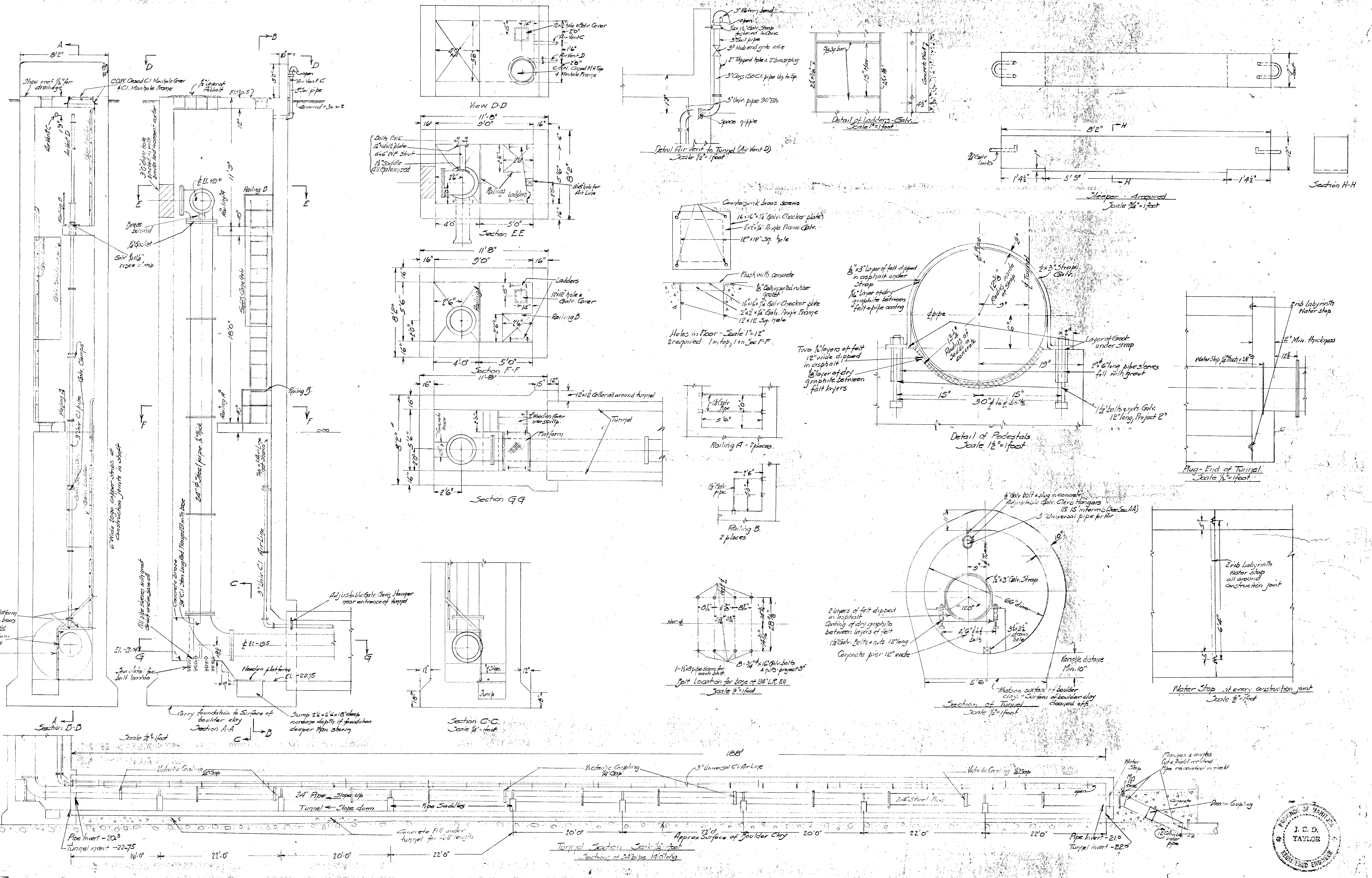
Rock & Boulder elevations taken in 1906
 River bottom elevations taken March 1924 P.S. 706 p. 23-25



B.M. 3136 N.E. Cor. Granite Slope
 at 191126 Main St. (P.S. 706-25)



Water Main Crossing of Red River Redwood Avenue Plan and Profile	CITY OF WINNIPEG ENGINEERING DEPARTMENT ST. D. HUST, CITY ENGINEER A.J.S. TAUNTON, DEPUTY CITY ENGINEER	DRAWN BY: [Signature] CHECKED BY: [Signature] APPROVED: [Signature]
	DATE: [Date] SCALE: [Scale]	PROJECT NO. 191126 SHEET NO. [Number]



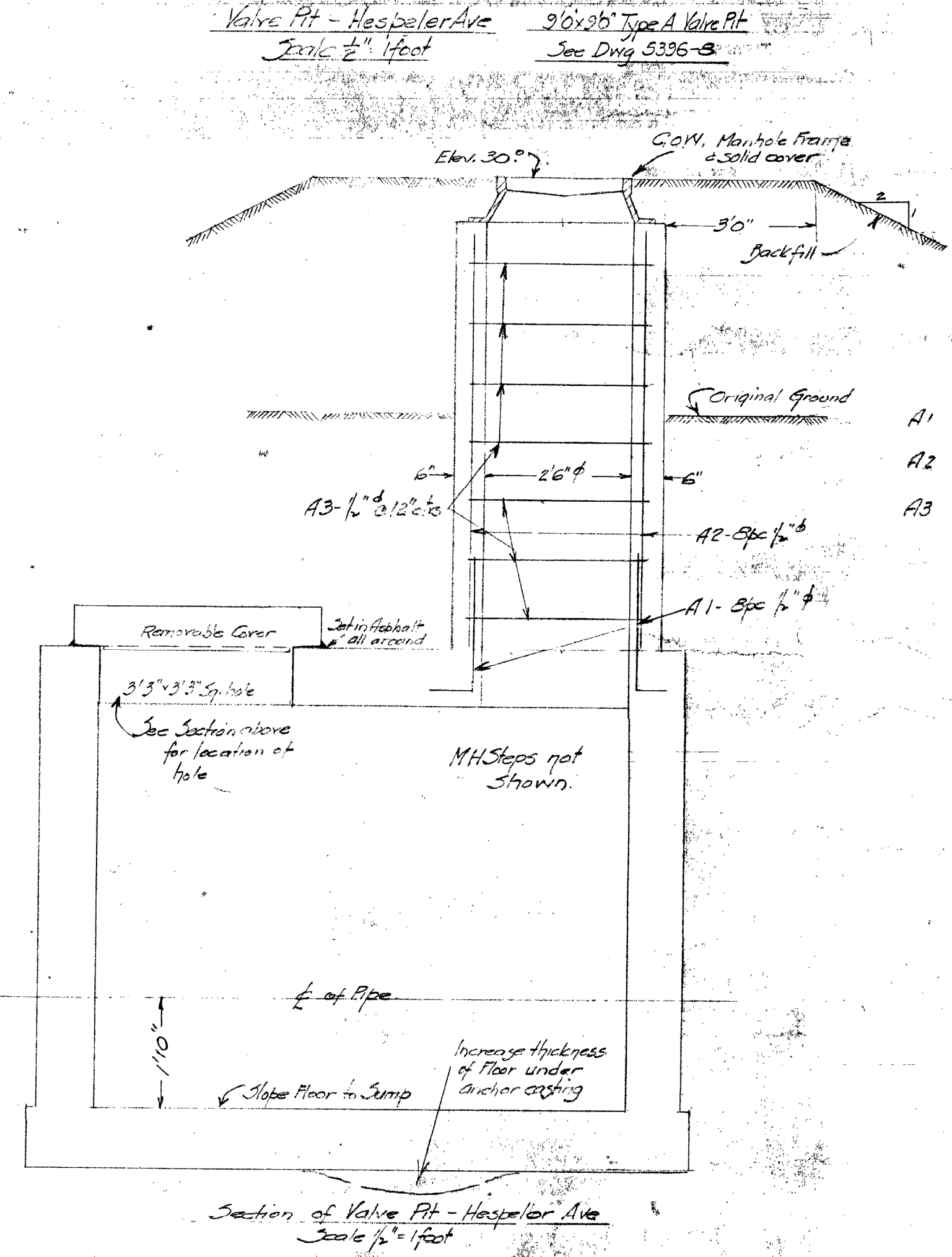
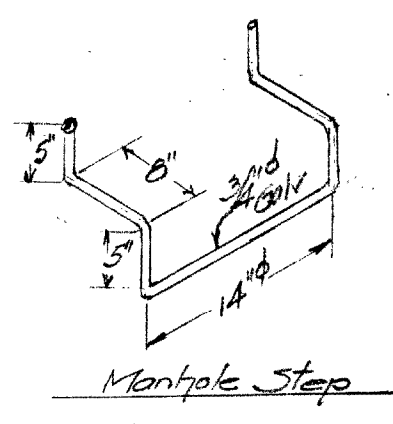
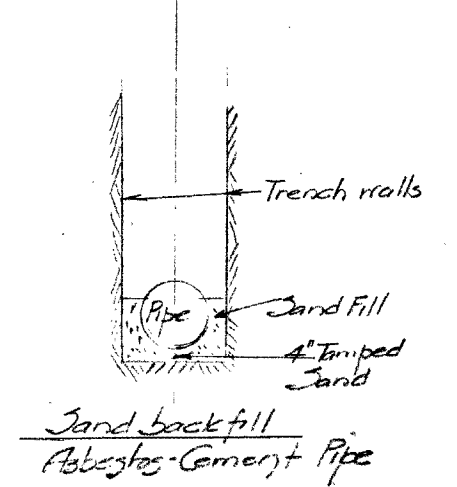
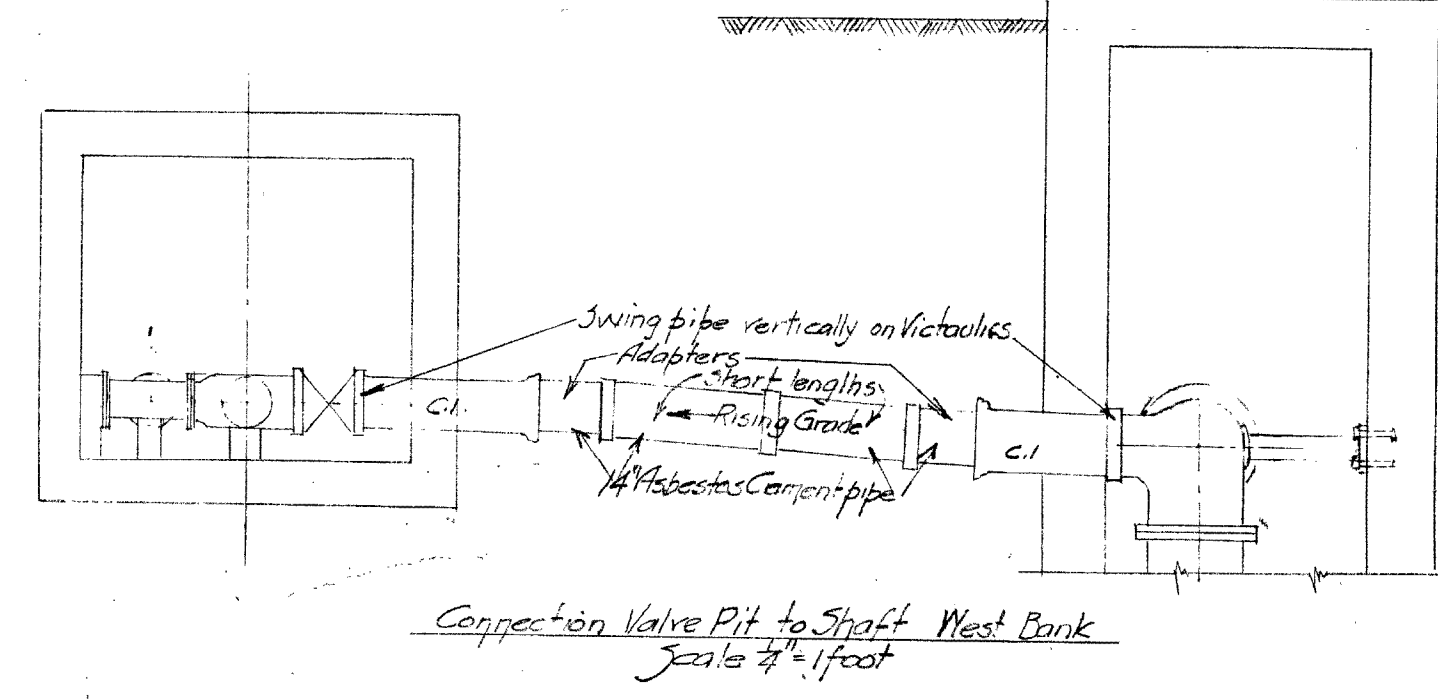
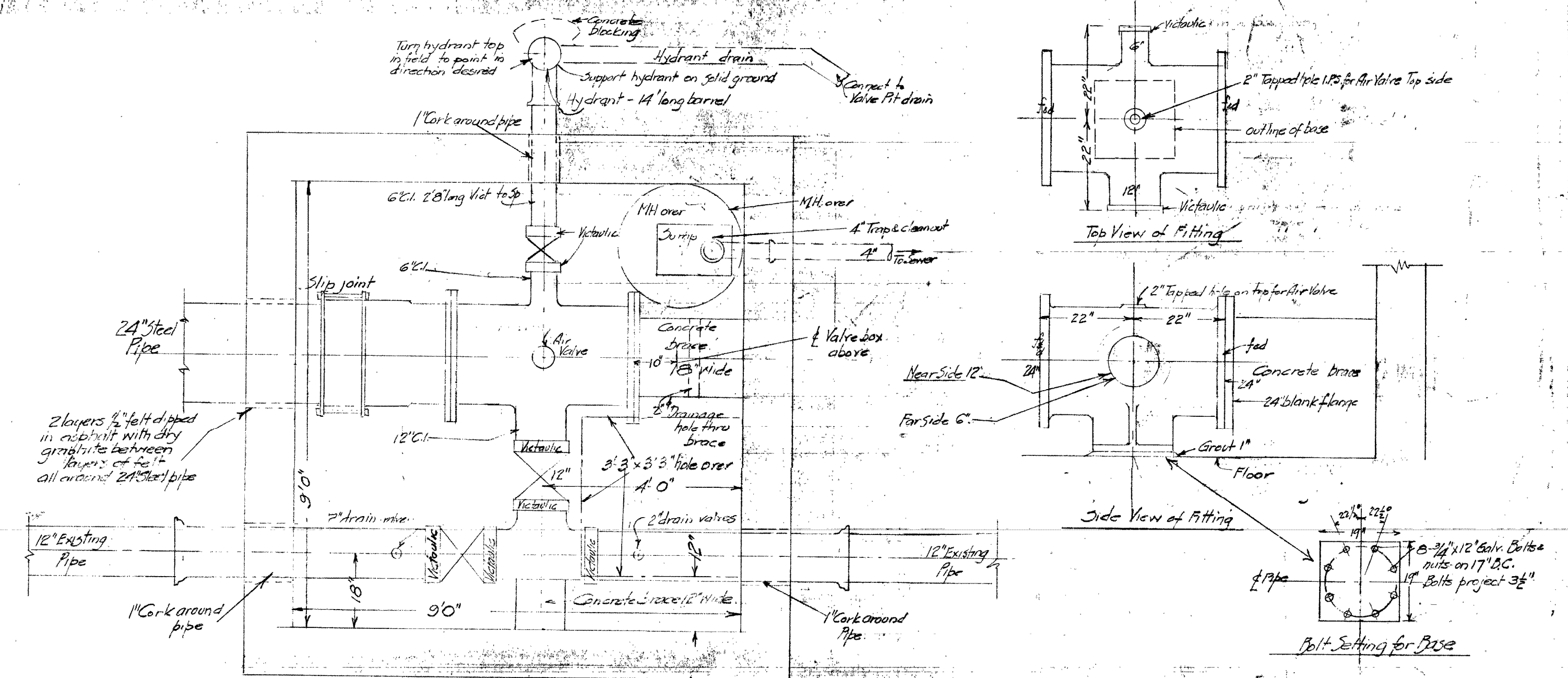
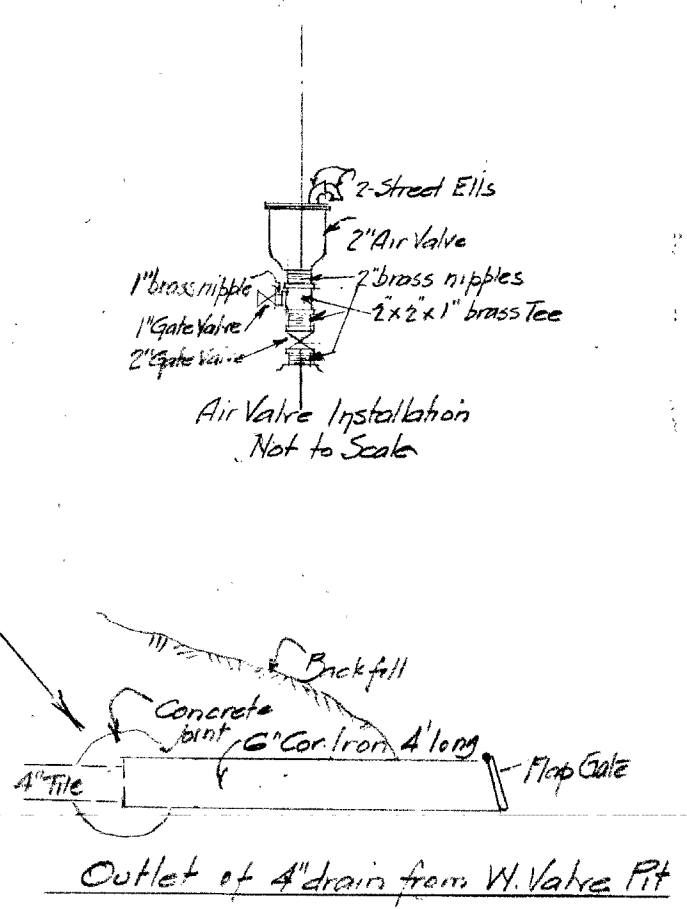
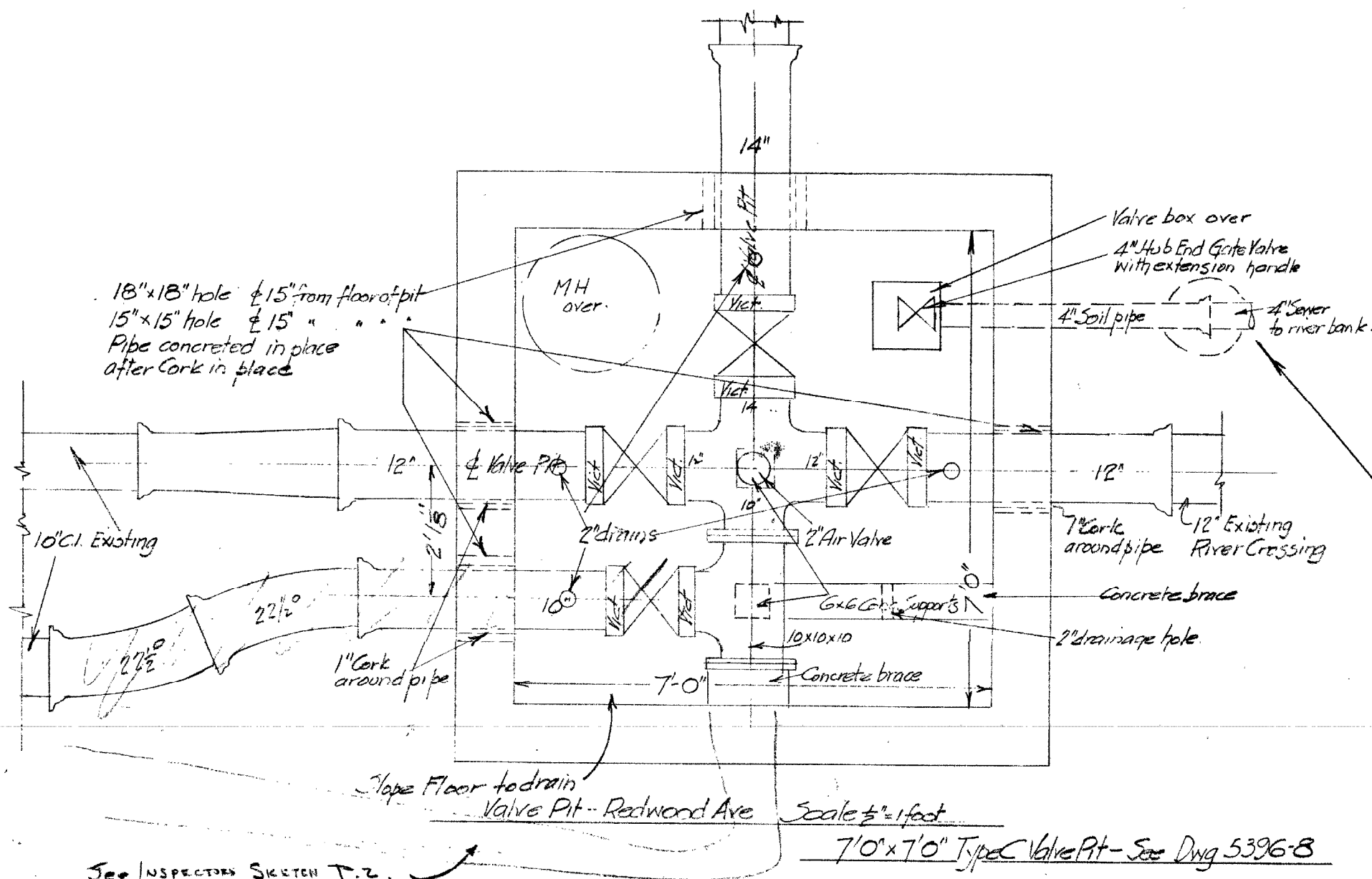
Water Main Crossing of Red River
 Redwood Avenue
 West Shaft & Tunnel

CITY OF WINNIPEG
 ENGINEERING DEPARTMENT
 W. D. HURST, CITY ENGINEER
 A. J. S. TAUNTON, DEPUTY CITY ENGINEER

DRAWN BY: [Signature] DATE: Aug 3, 1954
 TRACED BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED: [Signature]

SCALE: As Shown
 DRAWING NO.: 12531





- Extra Steel for MH shaft
- A1 8pc 1/2" x 3'-0" long bent
 - A2 4pc 1/2" x 7'-0" long straight
 - A3 7pc 1/2" x 3'-0" bent

Material West Side of River	Material Valve Pit East Side of River
1 only 12" x 12" x 10' C.I. Tee. Stem V.V.V. Fl.	6" Hydrant 1 required Length of Barrel 14'-0"
Special Pipe - Class C-C.I. 1pc 14" diam. 2pc 12" diam. 1pc 10" diam.	1pc 6" C.I. Class C pipe 2' 8" long Vict Shoulder type to spigot
Victaulic Couplings 4-12" diam. 2-12" diam. 2-10" diam.	Victaulic Couplings 2-6" Shoulder type 5-12" Complete
Gate Valves 1-14" Victaulic Ends 2-12" 1-10" 1-4" Bell stock	1pc 6" C.I. Class C pipe 0' 8" long Vict Shoulder type to Flange Fed
10" x 10" x 10' C.I. Tee. Flange, Flange, Victaulic Shoulder Type Flanges 2 x 2	1 only 24" Gate Valve with 2" Sp. operating nut Victaulic
Blank Flange 10" - required Fed	3- Extension Valve stems length to suit
Reducer C.I. 12" x 10" B.S. - required - 10" Bell end, 12" Spigot end	1 only 24" x 24" x 12" x 6" Special Flanged Casting - See detail
2 2" bands C.I. - 10" diam Class C - B.S. - 2 required	1 only 24" blank C.I. Flange Fed
Solid Sleeves C.I. 2-12" diam required 1-10"	1 only 20" C.I. Class C pipe 1' 6" long Flange Fed to plain See detail
2" Air Valve 1 required	1 only 12" x 12" x 12" Class D Tee C.I. 3 Ends Victaulic - Shoulder type
2" brass Gate Valves B required, threaded ends, rising stem	2 pcs 12" Class C-C.I. pipe 50" long Bell to Victaulic Shoulder type
2" short brass nipples 2 1/2" long 6 required	3 only Extension valve boxes - extend to B'
4" Soil pipe 5 1/2" ft.	5 only 2" brass nipples 2 1/2" long
Valve stems for Valves 5 required	3 - 2" brass gate valves, threaded ends, rising stem
14" C.I. x 24" C.I. pipe 2'-6" long required Bell to Victaulic Shoulder type	1 only 2" Air Valve
24" blank Flange 1 required Fed	1 - 4" P trap C.I. for Hydrant
24" Steel C.I. Flanged 30° Ell with 14" 1/2" outlet Vict. 1 required	1 - 4" trap, Yelement, brass female & brass plug - for drain
14" Reduc. Cement Adapters Class 150 - 2 required	1 pc 4" Soil pipe 5' long
14" Pipe Class 150 2-Short lengths required	2- 2" Castel. 1/2" both used rubber Bell & Sleeve (ster)
14" Couplings & Flanges for Abt. Cent. Class 150 - 3 required	4 Street Ells brass Size to fit top of Air Valves
24" C.I. Long Radius Stan. Flanged 90° Ell with C.I. base (flw) required	6- 2" brass plugs
60' of 4" sewer pipe	2- 2 x 2 x 1" brass tees
Gaskets 2-10" & 1-24" 1/2" both used rubber	2- 1" Gate Valves brass, threaded ends, rising stems
	2- 1" brass nipples 2 1/2" long

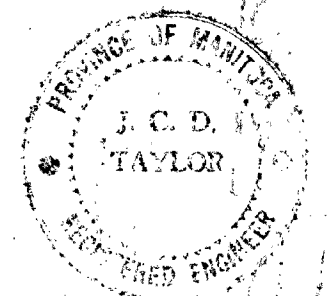
Date	Rev	Revision	Appr	By	CHK
Dec 13 54	1	24" x 24" x 12" x 6" - East Pit - revised			

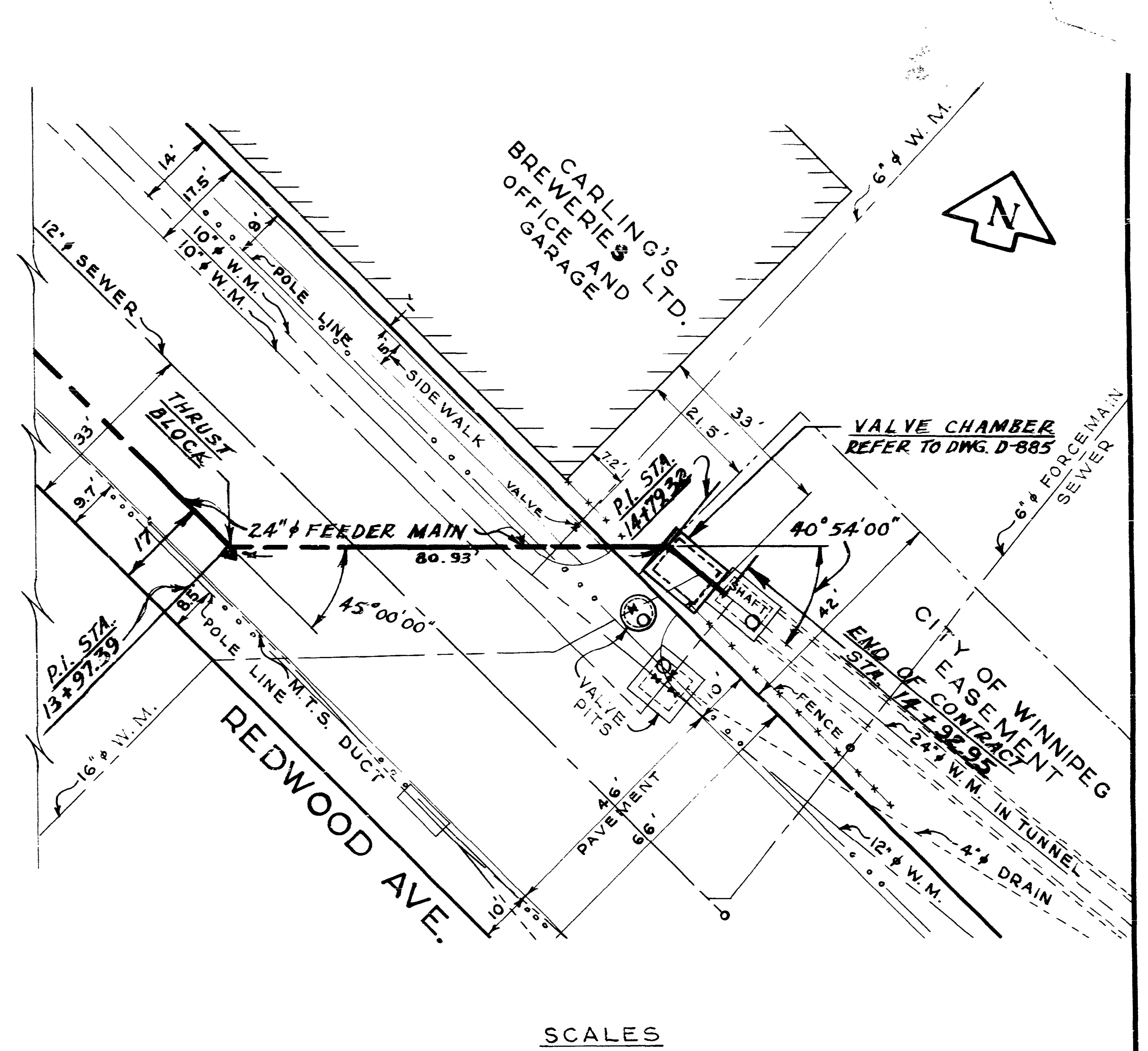
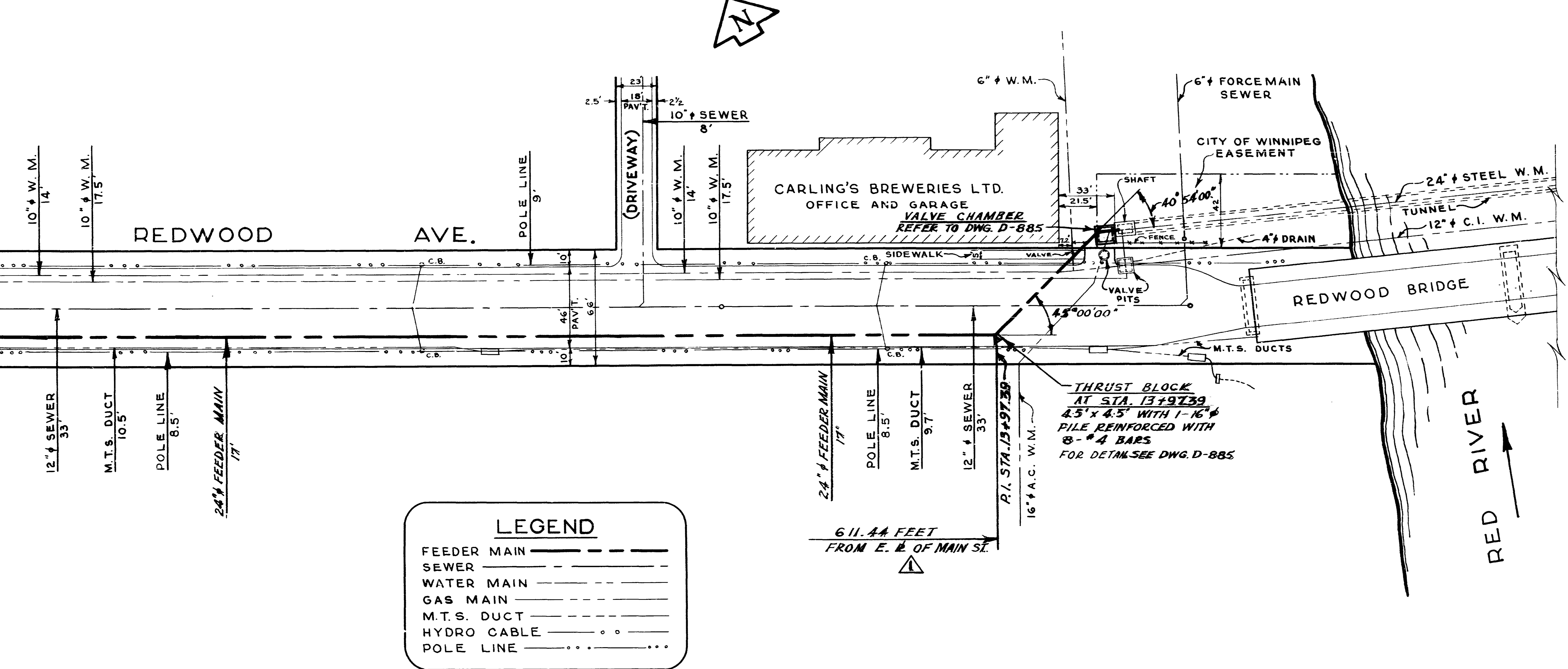
REDWOOD BRIDGE RIVER CROSSING
Water Main Crossing of Red River
Redwood Avenue
Valve Pits

CITY OF WINNIPEG
ENGINEERING DEPARTMENT
W. D. HURST, CITY ENGINEER
A. J. S. TAUNTON, DEPUTY CITY ENGINEER

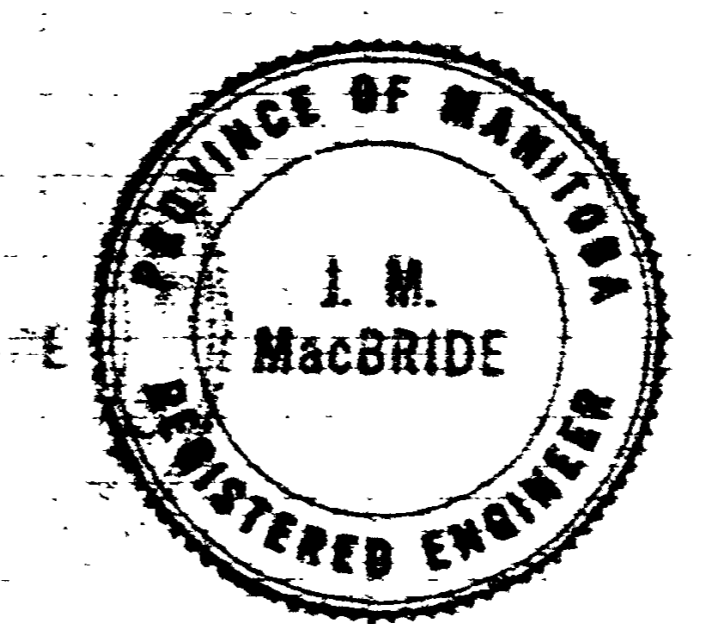
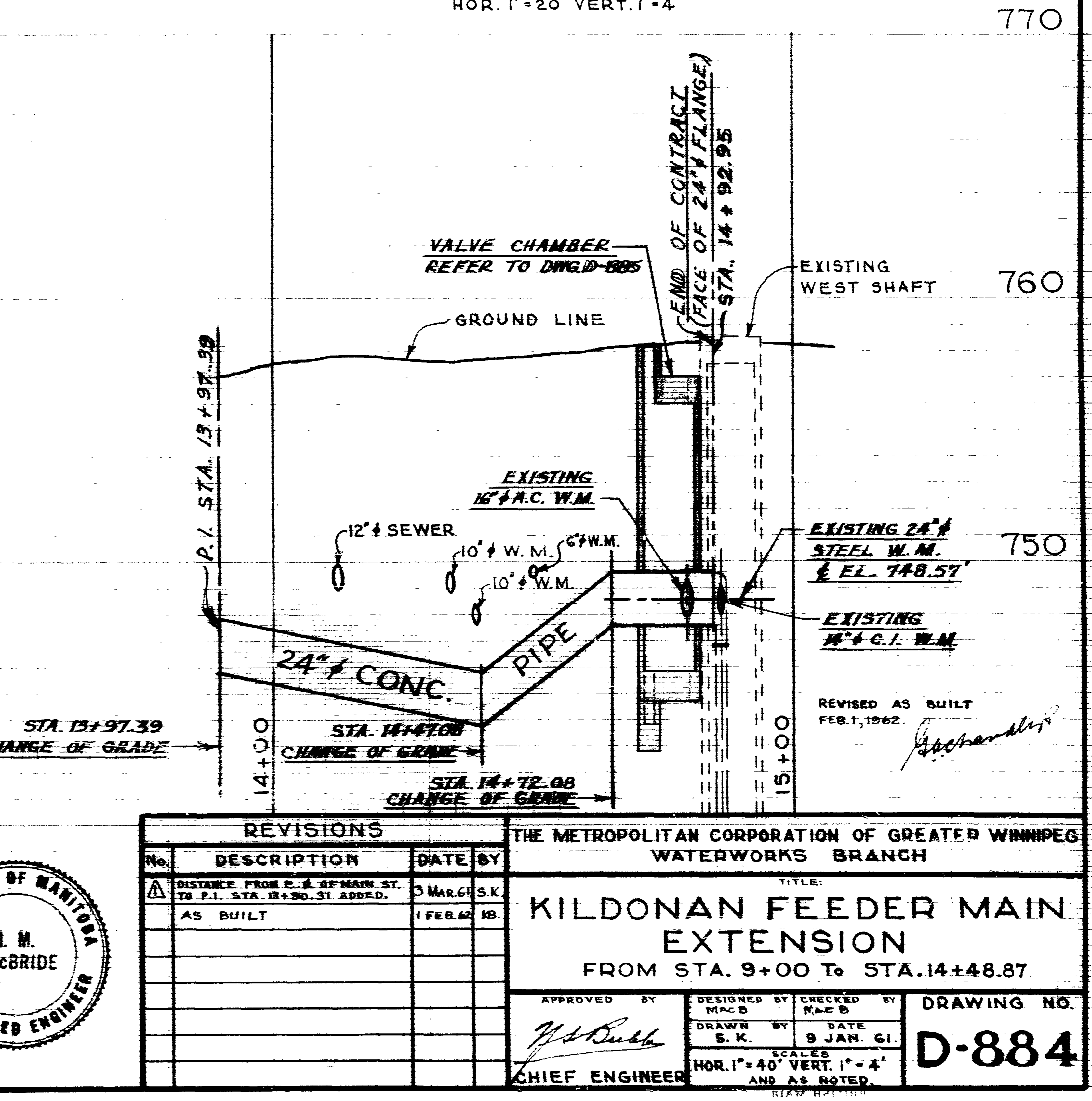
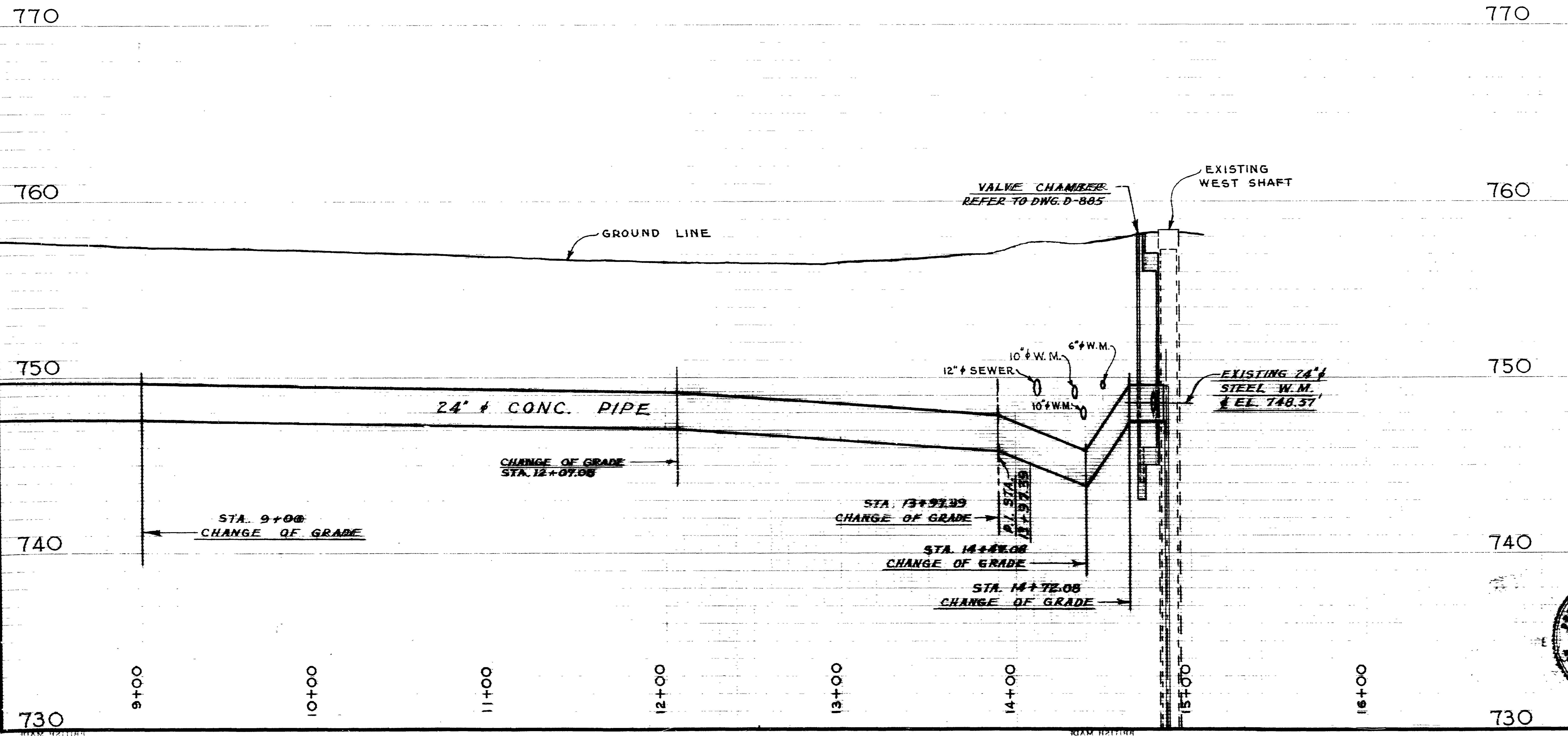
DRAWN BY: [Signature]
DATE: July 30, 1954
TRACED BY: [Signature]
CHECKED BY: [Signature]
APPROVED: [Signature]

SCALE: As Shown
DRAWING NO.: WA 12532





SCALES
HOR. 1"=20' VERT. 1"=4'



REVISIONS		DATE BY	
1	AS BUILT	1 FEB. 62	AS
2	INSTALLED FROM E. E. OF MAIN ST. TO P.I. STA. 13+30.31 ADDED.	10 MARCH 62	S.K.

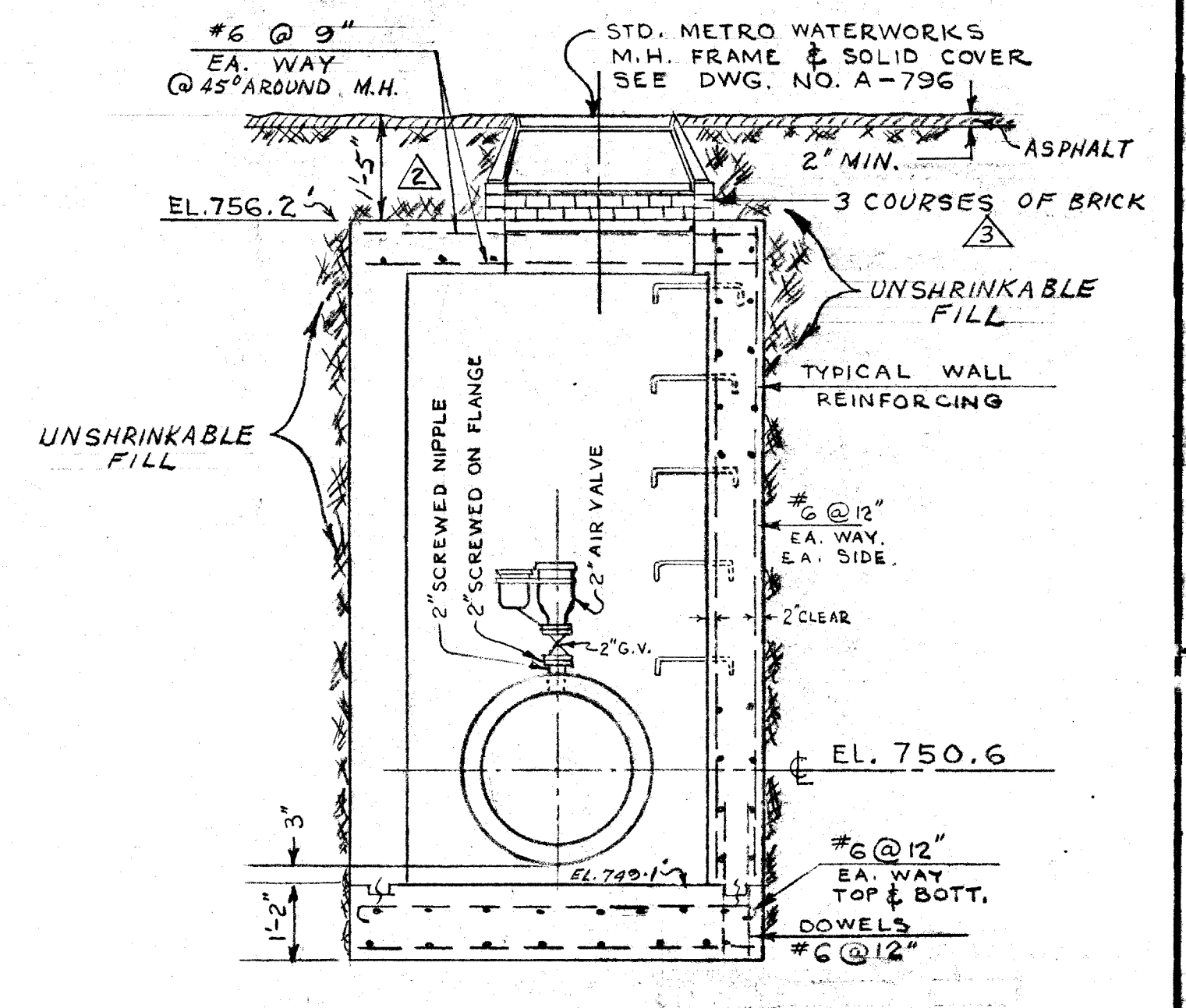
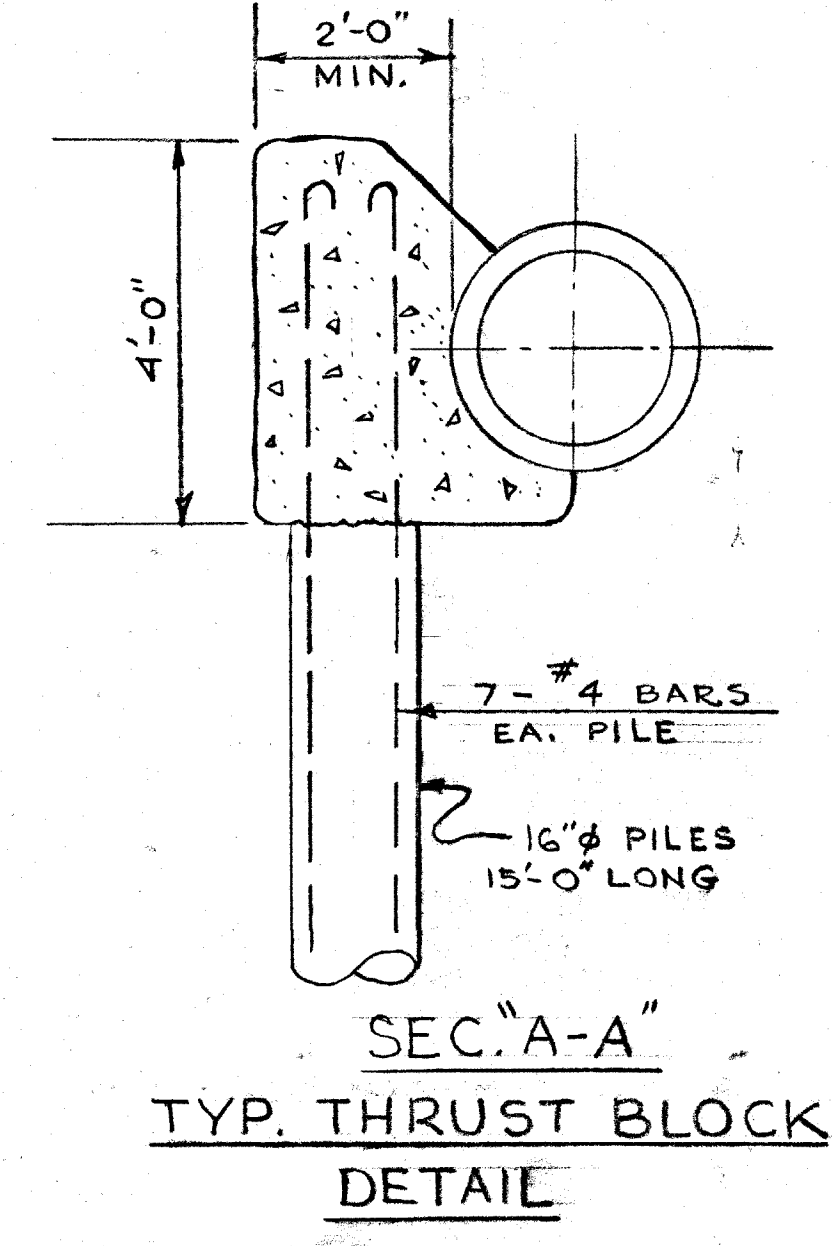
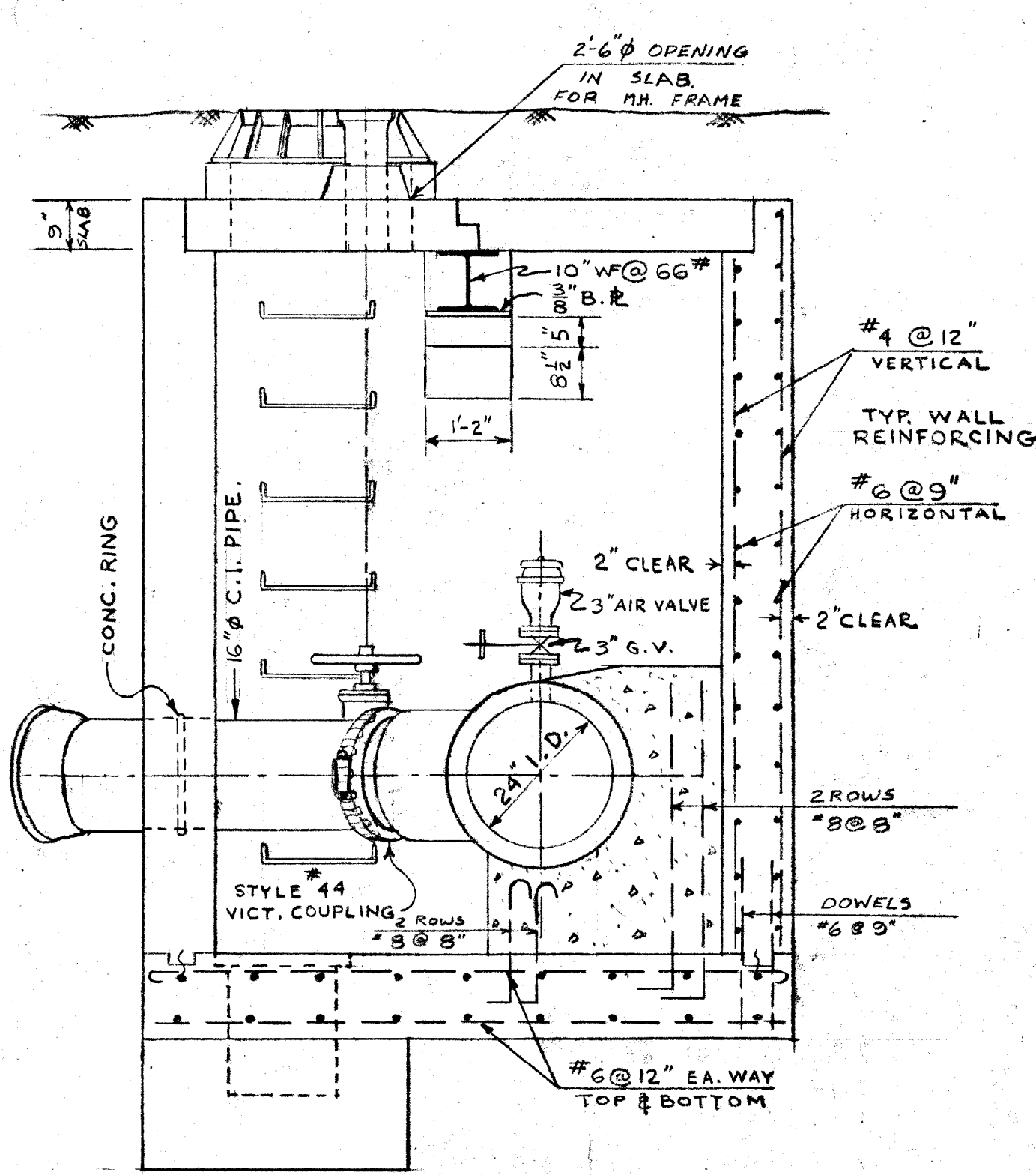
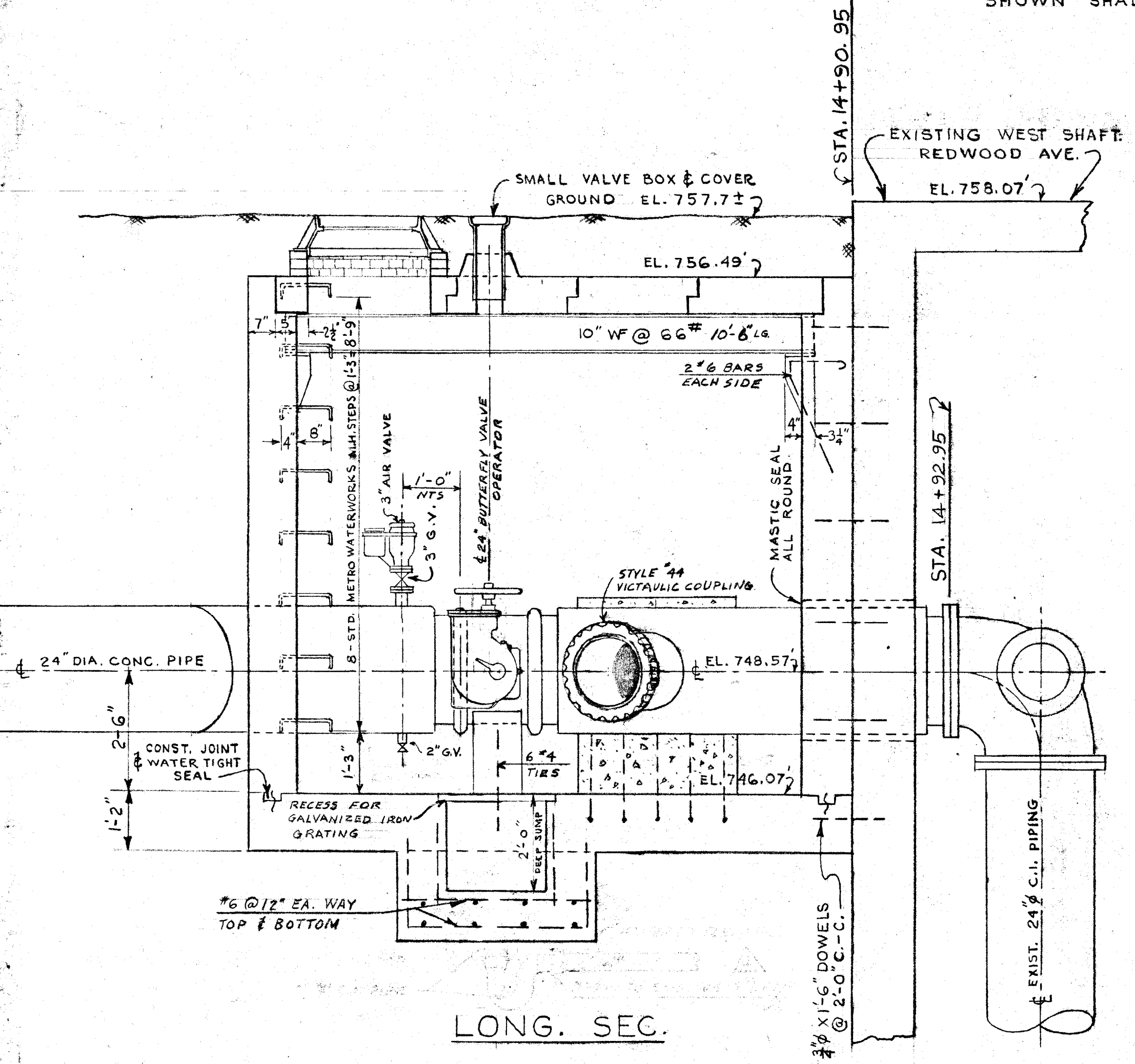
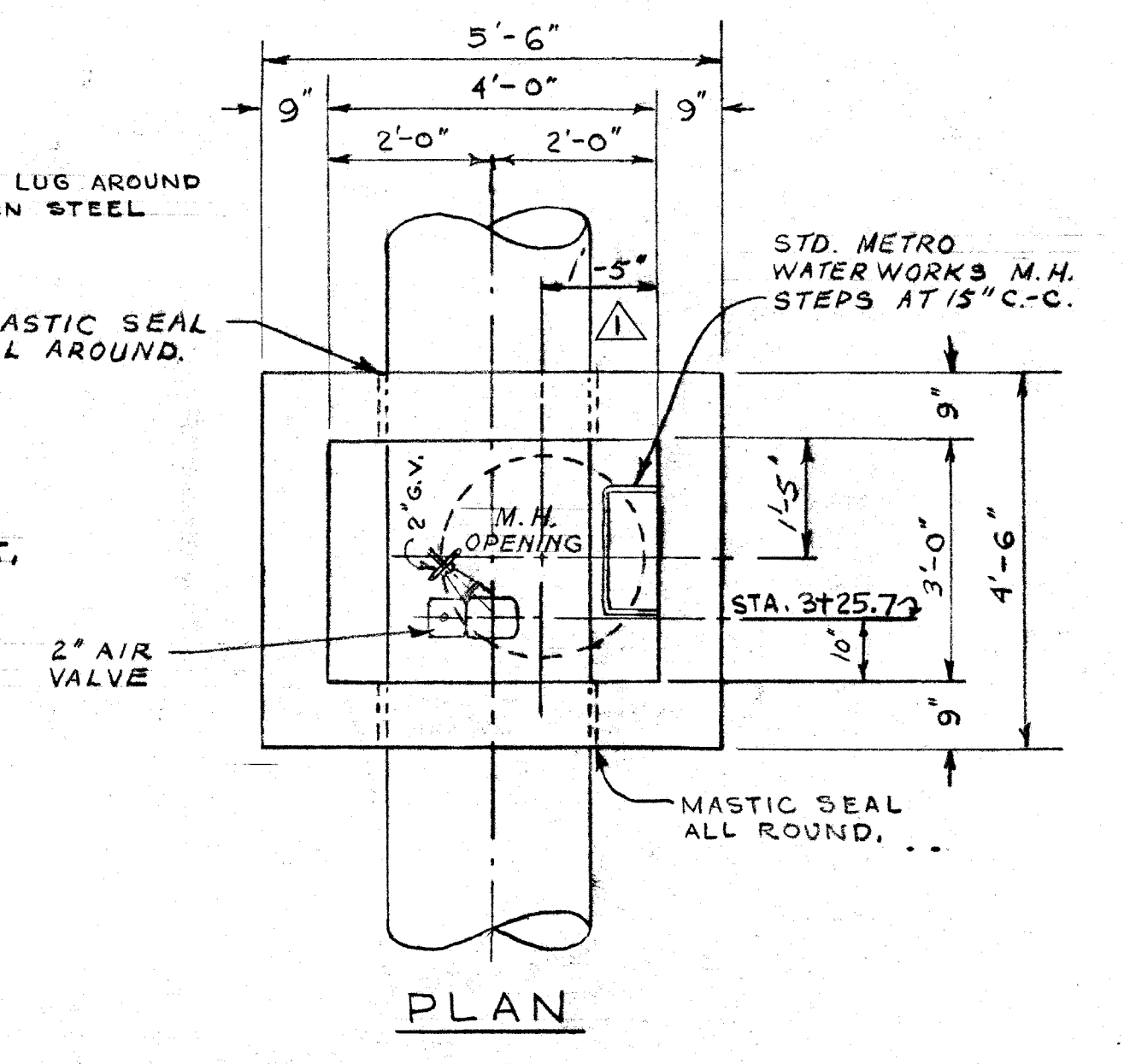
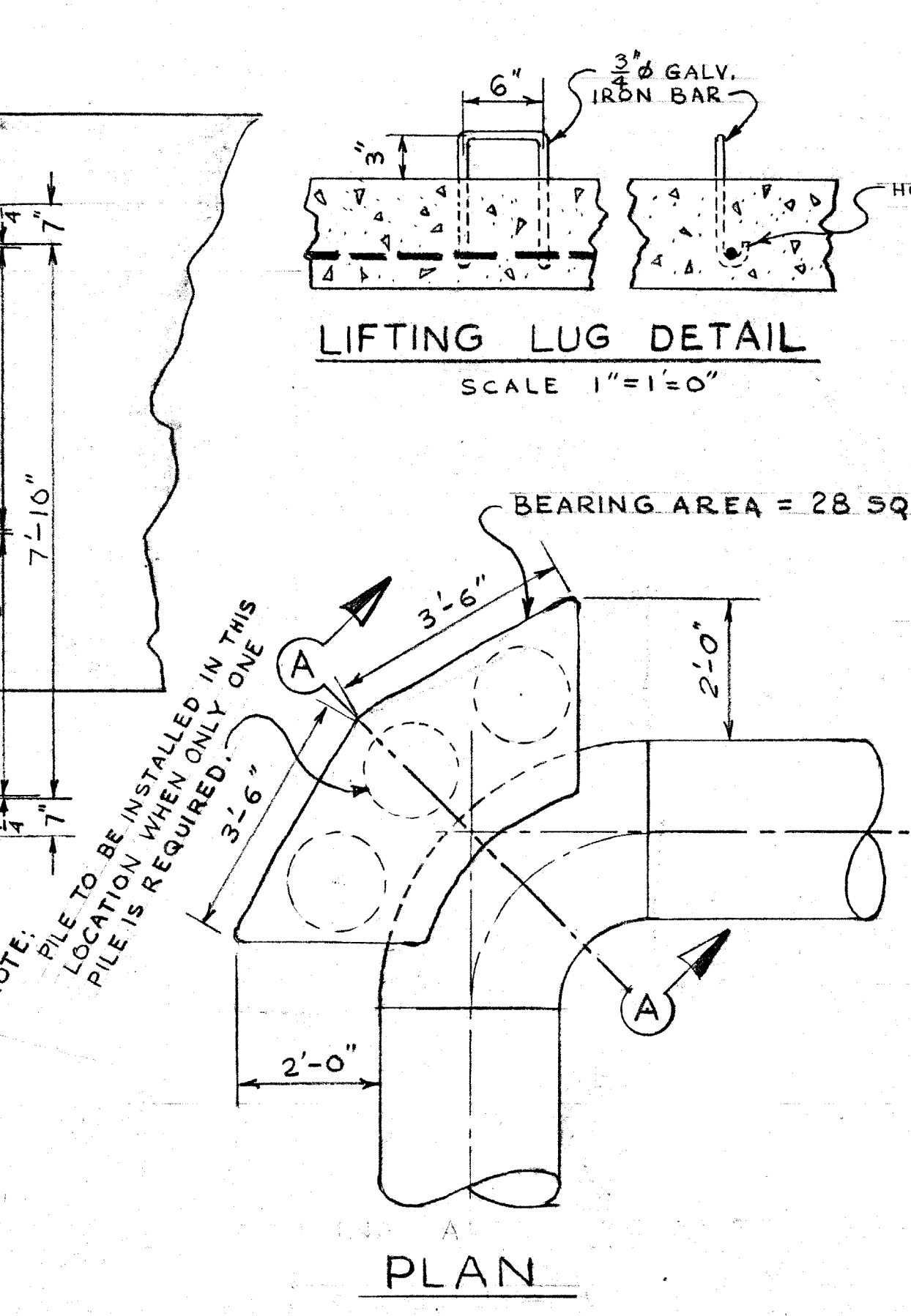
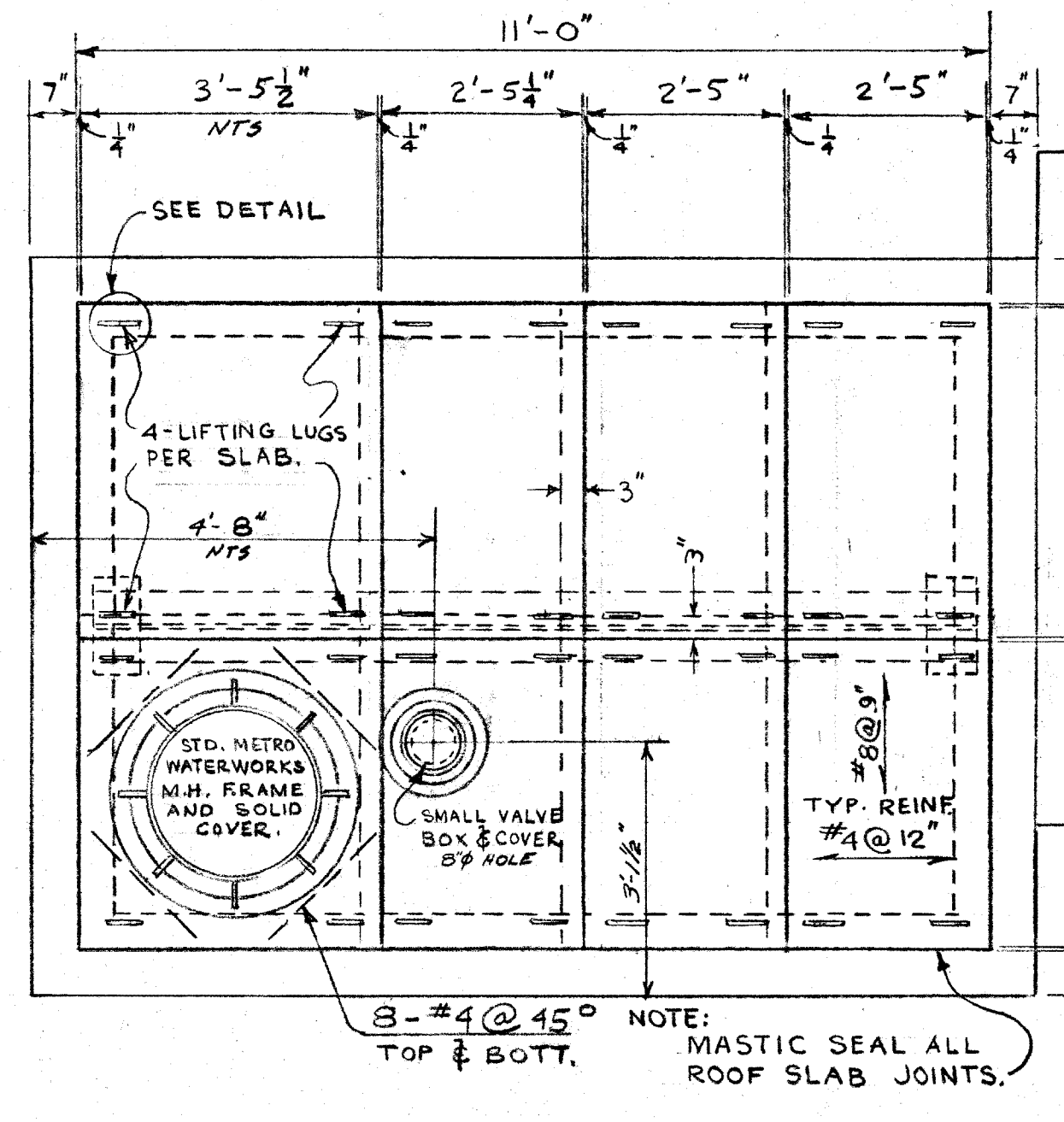
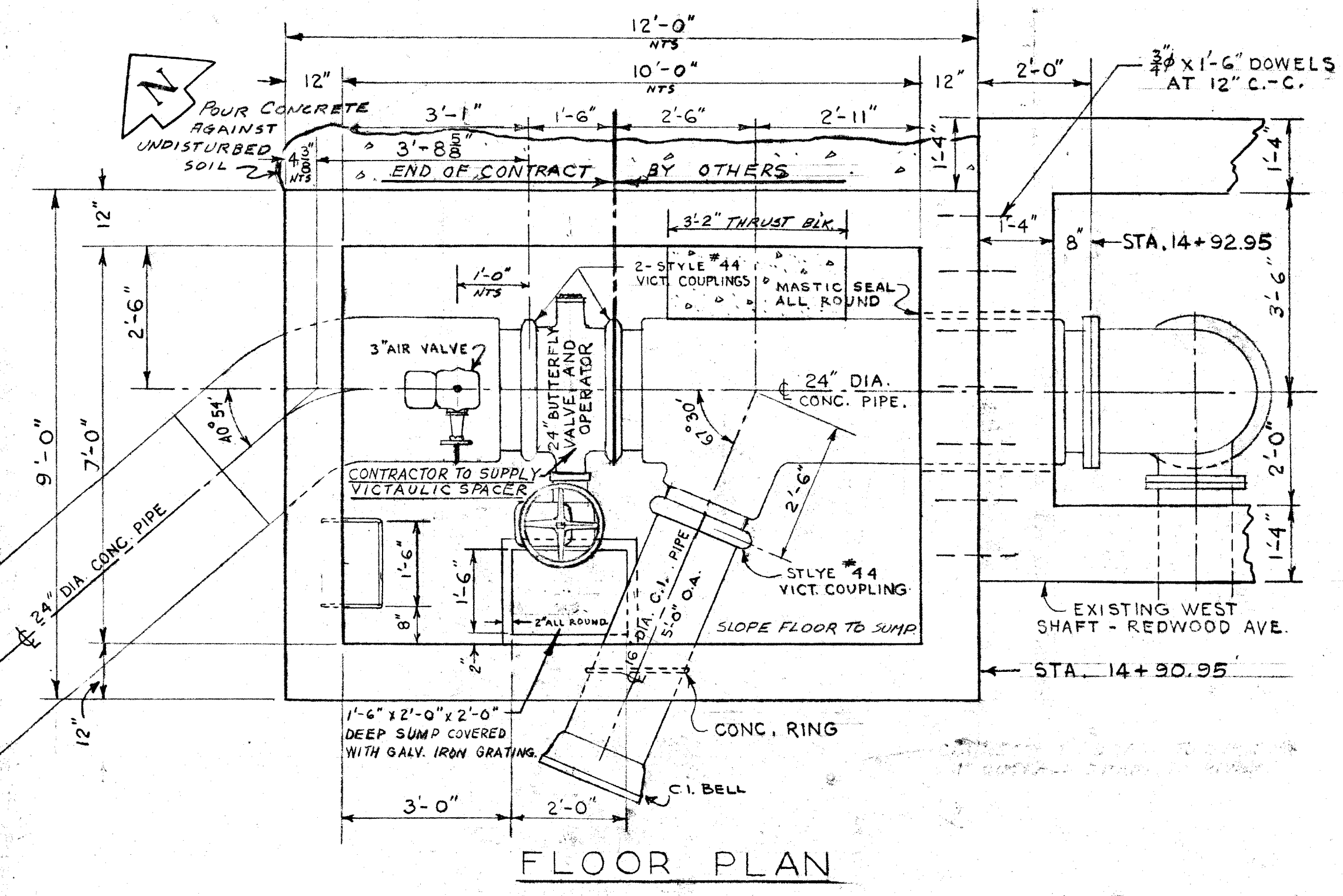
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS BRANCH

KILDONAN FEEDER MAIN EXTENSION
FROM STA. 9+00 TO STA. 14+48.87

APPROVED BY: *J. M. MacBRIDE*
DESIGNED BY: *W. H. B.*
DRAWN BY: *S. K.*
DATE: 9 JAN. 61

DRAWING NO. **D-884**

CHIEF ENGINEER

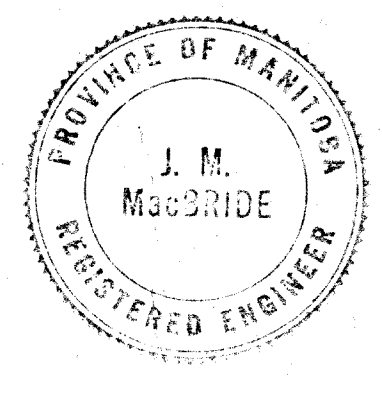


VALVE CHAMBER
AT REDWOOD AVE & RED RIVER
STA. 14+90.95

NOTE:
EXISTING WEST SHAFT
SHOWN SHADED.

NOTE:
PILE TO BE INSTALLED IN THIS
LOCATION WHEN ONLY ONE
PILE IS REQUIRED.

REVISED AS BUILT
FEB. 1, 1962



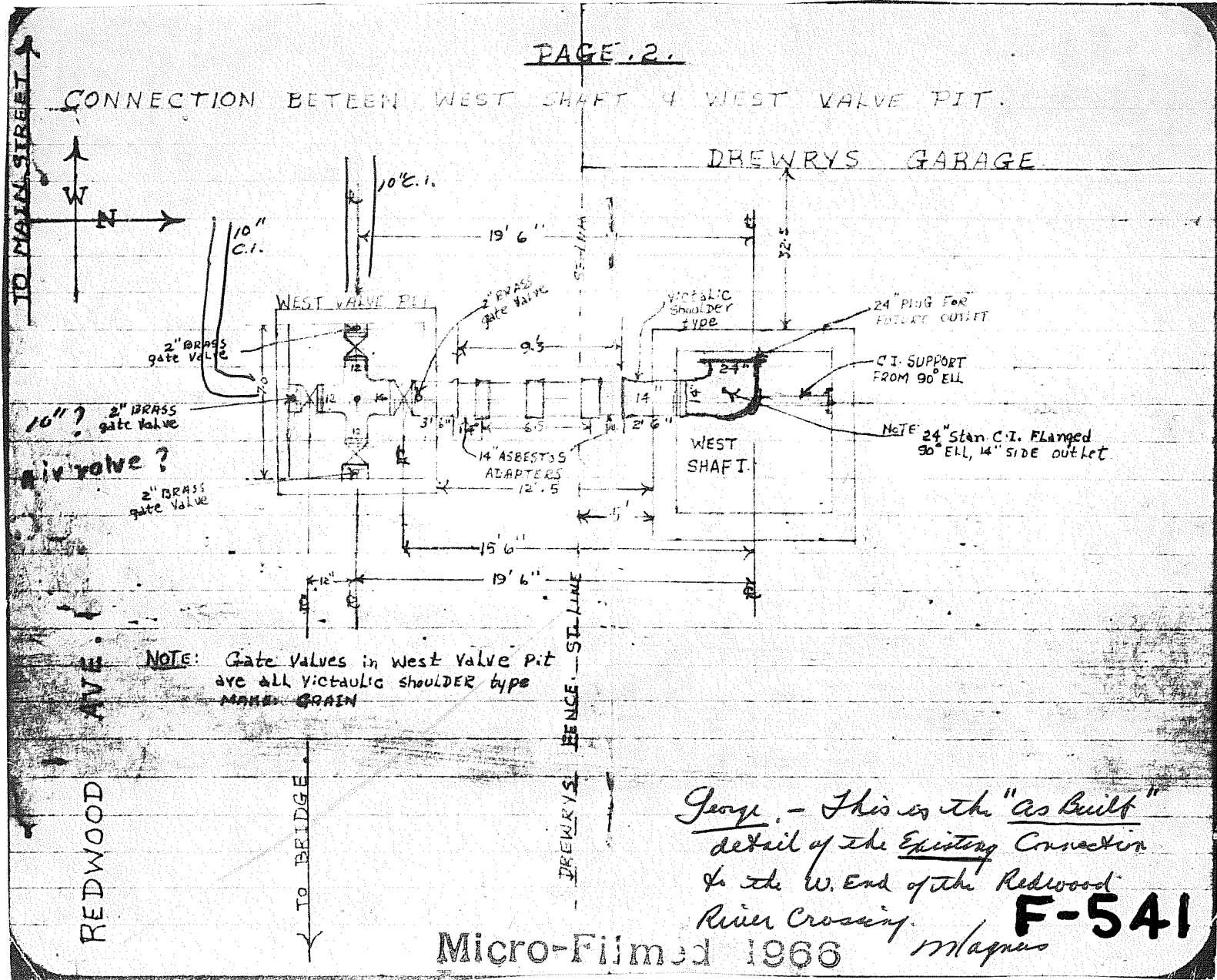
REVISIONS				THE METROPOLITAN CORPORATION OF GREATER WINNIPEG WATERWORKS BRANCH	
NO.	DESCRIPTION	DATE	BY		
1	DIMENSIONS TO LOCATE M.H. OF AIR VALVE CHAMBER ADDED	3 MAR. 61	S.K.	KILDONAN FEEDERMAIN EXTENSION VALVE CHAMBER AT WEST SHAFT, AIR VALVE CHAMBER AT STA. 3+48.70 REDWOOD AVE. AT RED RIVER	
2	5" CLEARANCE TO TOP OF STREET CHANGED TO 1'-5" CLEARANCE	9 MAR. 61	S.K.		
3	BLICKS ADDED TO M.H. ENTRANCE UNSHRINKABLE FILL NOTED ADDED	3 MAR. 61	S.K.		
4	TITLE CHANGED	23.05.19	K.T.	APPROVED BY CHIEF ENGINEER	DESIGNED BY H. BUXMAN DRAWN BY H. BUXMAN DATE 24 FEB 61 SCALES 1/2"=1'-0" AS NOTED

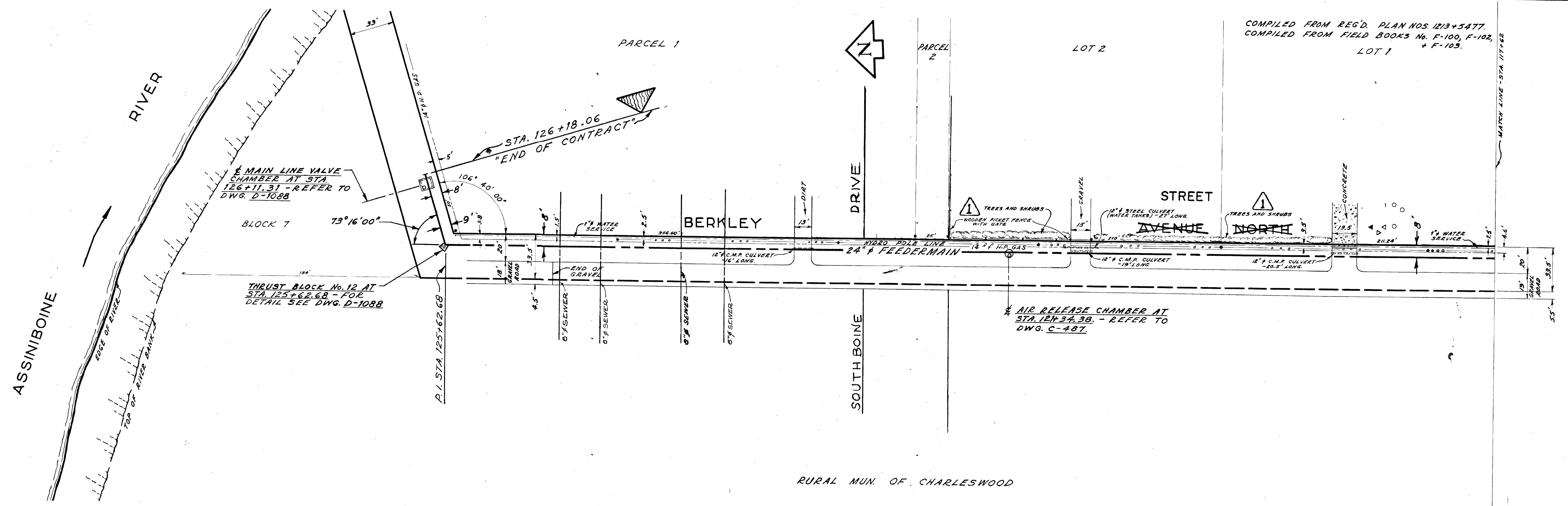
D-885

D-0885

PAGE 2.

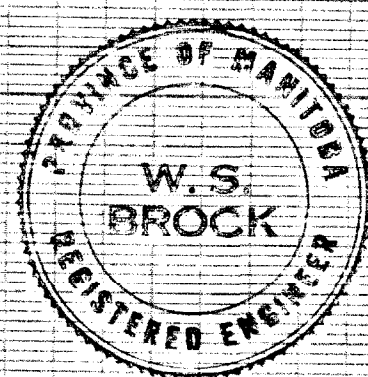
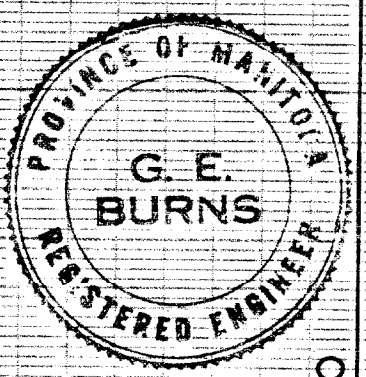
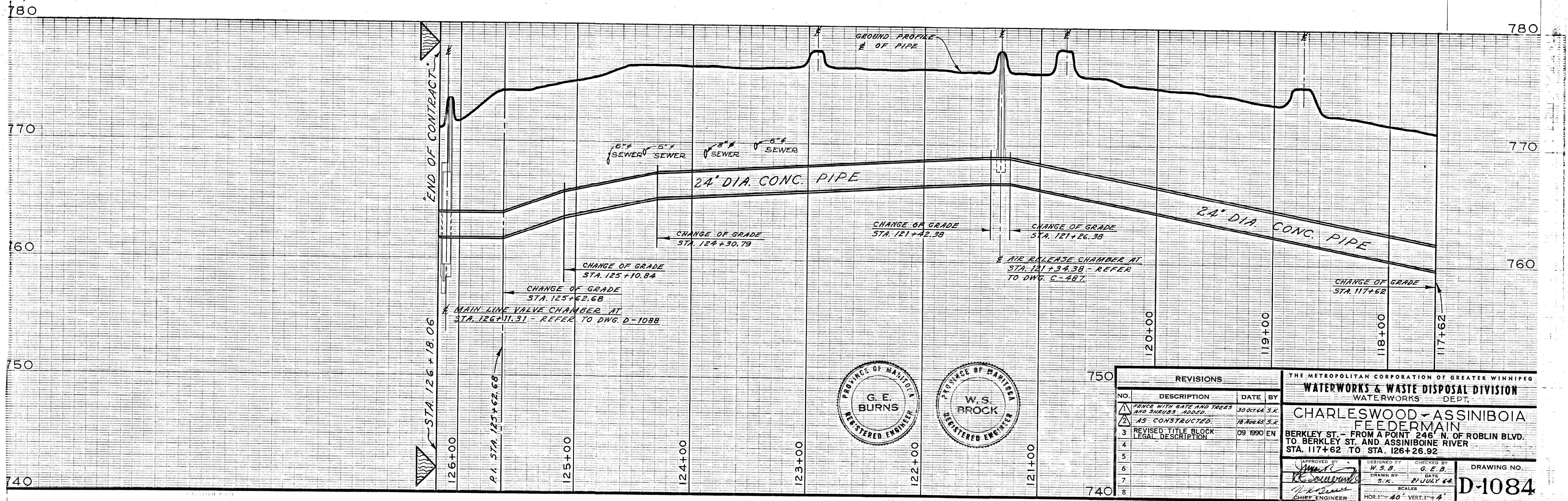
CONNECTION BETWEEN WEST SHAFT & WEST VALVE PIT.





COMPILED FROM REG'D. PLAN NOS. 1213+5477,
COMPILED FROM FIELD BOOKS No. F-100, F-102,
+ F-103.

RURAL MUN. OF CHARLESWOOD

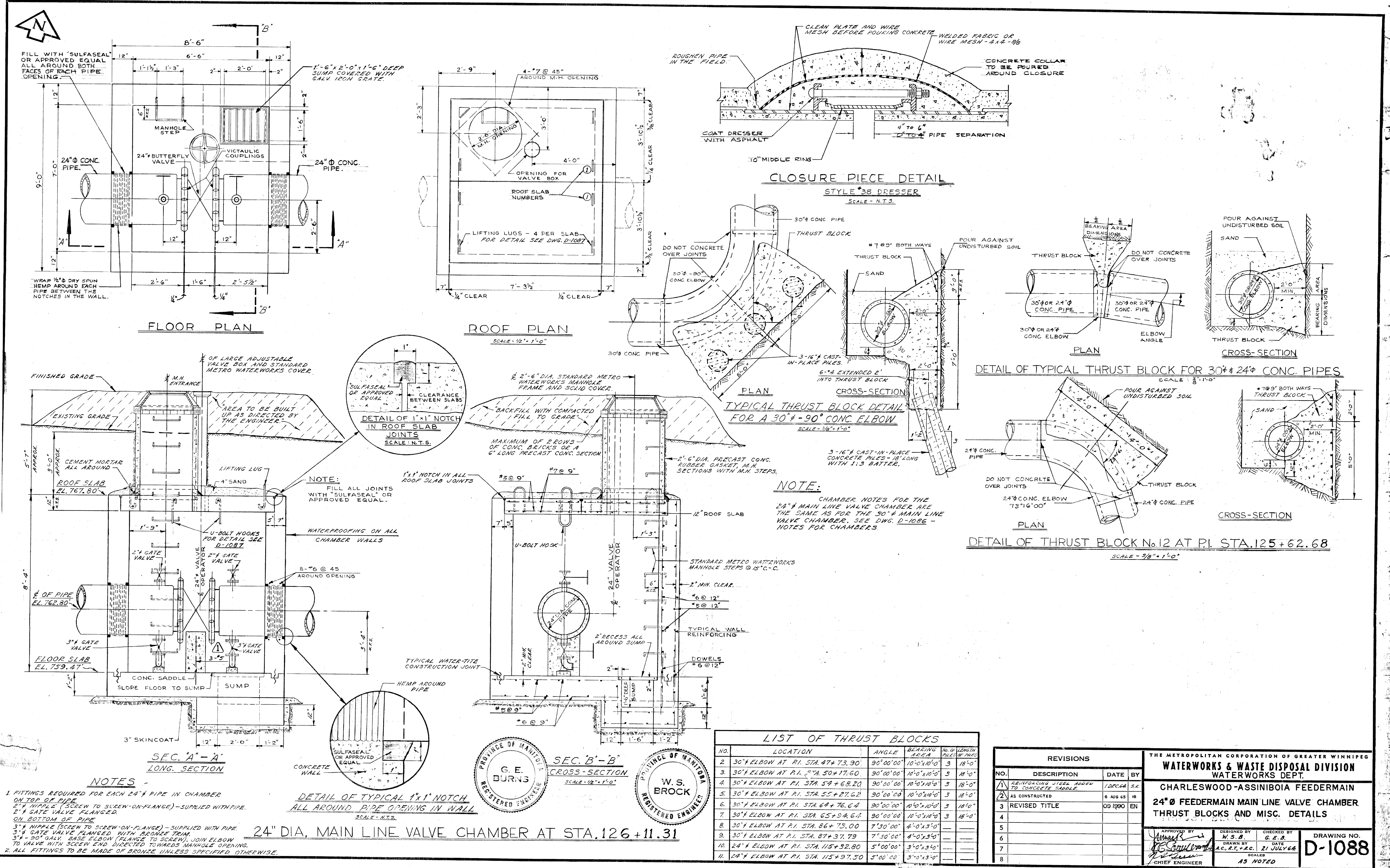


REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	PERMITS WITH GATE AND TREES AND SHRUBS ADDED.	30 OCT 64 S.K.	
2	AS CONSTRUCTED.	18 NOV 65 S.K.	
3	REVISED TITLE BLOCK LEGAL DESCRIPTION	09 1990 EN	
4			
5			
6			
7			
8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
 WATERWORKS DEPT.
CHARLESWOOD - ASSINIBOIA FEEDERMAIN
 BERKLEY ST. - FROM A POINT 246' N. OF ROBLIN BLVD. TO BERKLEY ST. AND ASSINIBOINE RIVER STA. 117+62 TO STA. 126+26.92

APPROVED BY: *[Signature]* CHIEF ENGINEER
 W.S.B. G.E.B.
 DRAWN BY: S.K. DATE: 21 JULY 64
 SCALE: HORIZ. 1" = 40' VERT. 1" = 4'

DRAWING NO. **D-1084**



NOTES

- FITTINGS REQUIRED FOR EACH 24" PIPE IN CHAMBER ON TOP OF PIPE.
- 2" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
- 2" GATE VALVE FLANGED.
- ON BOTTOM OF PIPE.
- 3" NIPPLE (SCREW TO SCREW-ON-FLANGE) - SUPPLIED WITH PIPE.
- 3" GATE VALVE FLANGED WITH BRONZE TRIM.
- 3" 90° GATE VALVE ELBOW (FLANGE TO SCREW), JOIN ELBOW TO VALVE WITH SCREW END DIRECTED TOWARDS MANHOLE OPENING.
- ALL FITTINGS TO BE MADE OF BRONZE UNLESS SPECIFIED OTHERWISE.

DETAIL OF TYPICAL 1"x1" NOTCH ALL AROUND PIPE OPENING IN WALL
SCALE - N.T.S.

24" DIA. MAIN LINE VALVE CHAMBER AT STA. 126+11.31

LIST OF THRUST BLOCKS

NO.	LOCATION	ANGLE	BEARING AREA	NO. OF PILES	LENGTH OF PILES
2	30" ELBOW AT P.I. STA. 47+73.90	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
3	30" ELBOW AT P.I. STA. 50+17.60	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
4	30" ELBOW AT P.I. STA. 54+68.20	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
5	30" ELBOW AT P.I. STA. 55+27.62	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
6	30" ELBOW AT P.I. STA. 64+76.64	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
7	30" ELBOW AT P.I. STA. 65+54.67	90° 00' 00"	10'-0" x 10'-0"	3	18'-0"
8	30" ELBOW AT P.I. STA. 86+73.00	7° 50' 00"	4'-0" x 3'-0"	---	---
9	30" ELBOW AT P.I. STA. 87+37.79	7° 50' 00"	4'-0" x 3'-0"	---	---
10	24" ELBOW AT P.I. STA. 115+92.80	5° 00' 00"	3'-0" x 3'-0"	---	---
11	24" ELBOW AT P.I. STA. 115+97.50	5° 00' 00"	3'-0" x 3'-0"	---	---

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	REINFORCING STEEL ADDED TO CONCRETE SADDLE	1/20/64	S.K.
2	AS CONSTRUCTED	6 AUG 65	IB
3	REVISED TITLE	09 1990	EN
4			
5			
6			
7			
8			

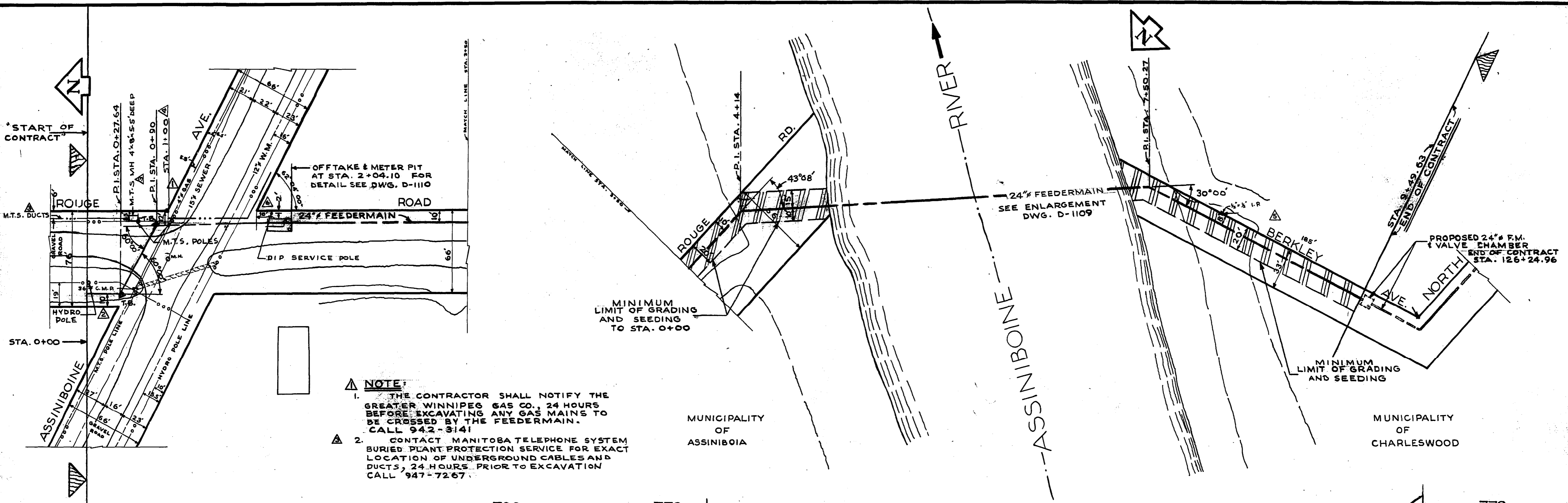
THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
 WATERWORKS DEPT.
CHARLESWOOD-ASSINIBOIA FEEDERMAIN
24" Ø FEEDERMAIN MAIN LINE VALVE CHAMBER
THRUST BLOCKS AND MISC. DETAILS

APPROVED BY: *[Signature]* CHIEF ENGINEER
 DESIGNED BY: W.S.B.
 CHECKED BY: G.E.B.
 DRAWN BY: A.C.R.T. & R.C.
 DATE: 21 JULY 64
 SCALE: AS NOTED

DRAWING NO. **D-1088**

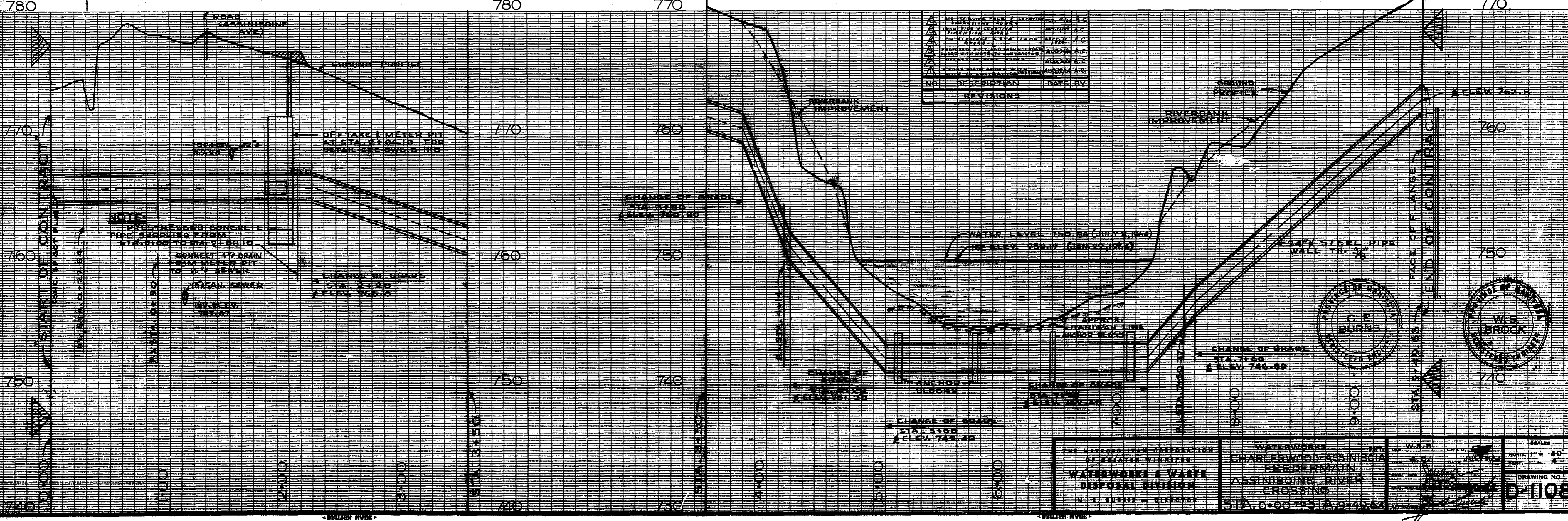
City of Winnipeg
 W002830

D-1088



- NOTE:**
1. THE CONTRACTOR SHALL NOTIFY THE GREATER WINNIPEG GAS CO. 24 HOURS BEFORE EXCAVATING ANY GAS MAINS TO BE CROSSED BY THE FEEDERMAIN. CALL 942-3141.
 2. CONTACT MANITOBA TELEPHONE SYSTEM BURIED PLANT PROTECTION SERVICE FOR EXACT LOCATION OF UNDERGROUND CABLES AND DUCTS, 24 HOURS PRIOR TO EXCAVATION CALL 947-7267.

NO.	DESCRIPTION	DATE BY
1	As per work sheet	1/24/64
2	Change of grade	1/24/64
3	Change of grade	1/24/64
4	Change of grade	1/24/64
5	Change of grade	1/24/64
6	Change of grade	1/24/64
7	Change of grade	1/24/64
8	Change of grade	1/24/64
9	Change of grade	1/24/64
10	Change of grade	1/24/64



THE METROPOLITAN CORPORATION OF GREATER WINNIPEG WATERWORKS & WASTE DISPOSAL DIVISION W. S. BROCK - SUPERVISOR	WATERWORKS CHARLESWOOD-ASSINIBOIA FEEDERMAIN ASSINIBOINE RIVER CROSSING STA. 0+00 TO STA. 126+24.96	W.S.B. DATE: 1/24/64 SCALE: HORIZ. 1" = 80' VERT. 1" = 4' DRAWING NO. D-1108
--	--	---

MUNICIPALITY OF ASSINIBOIA

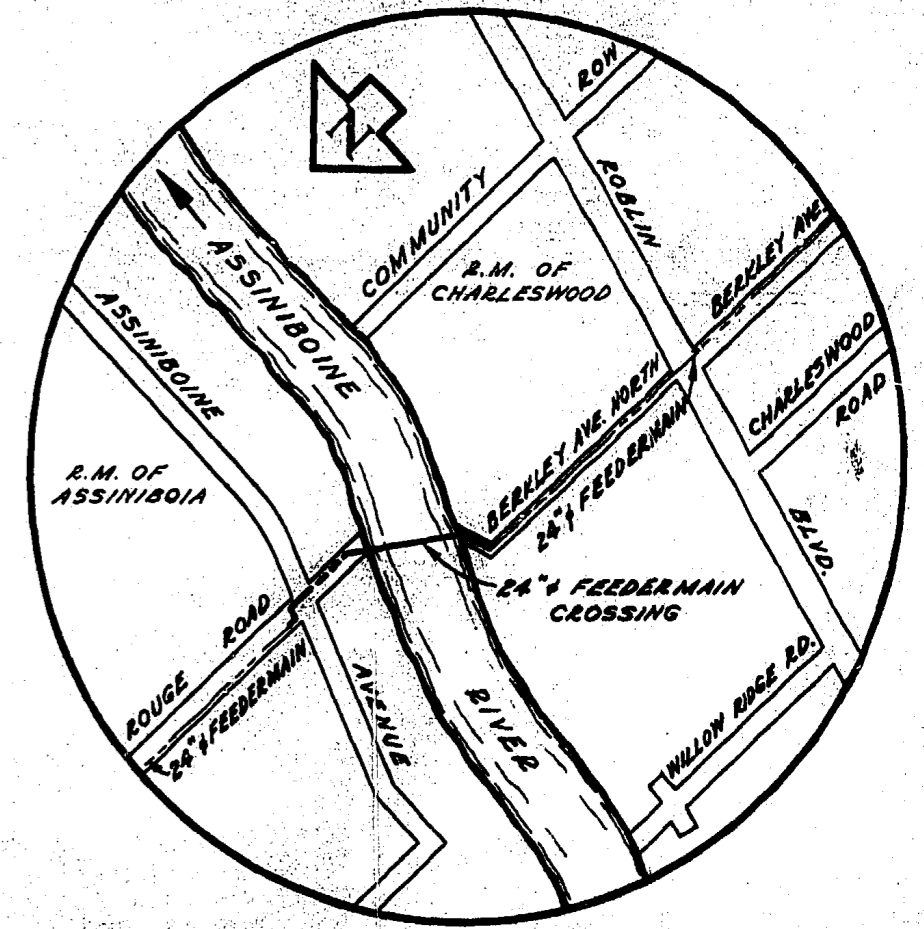
MUNICIPALITY OF CHARLESWOOD

Deposited in the Winnipeg Land Titles Office this 15th day of September AD. 1964 at 12:38 P.M. as Railway Deposit No 830.

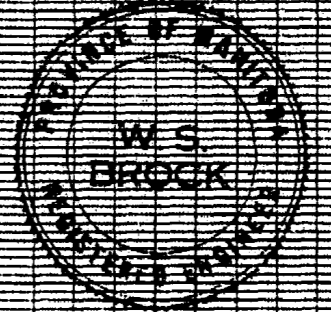
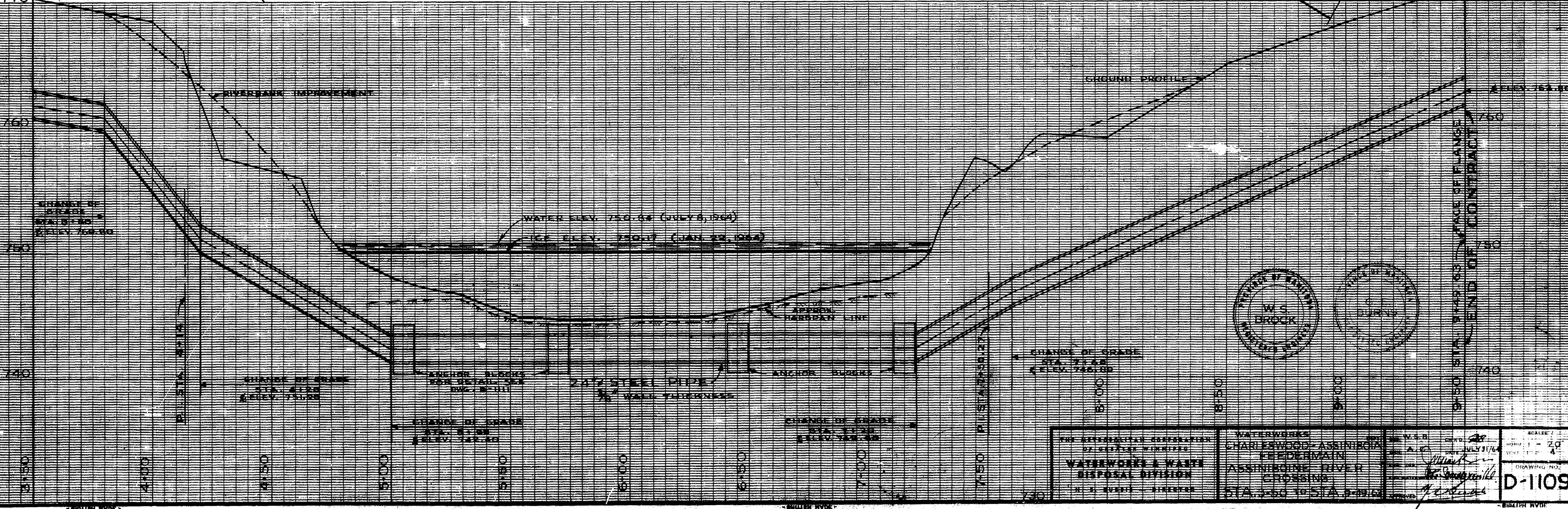
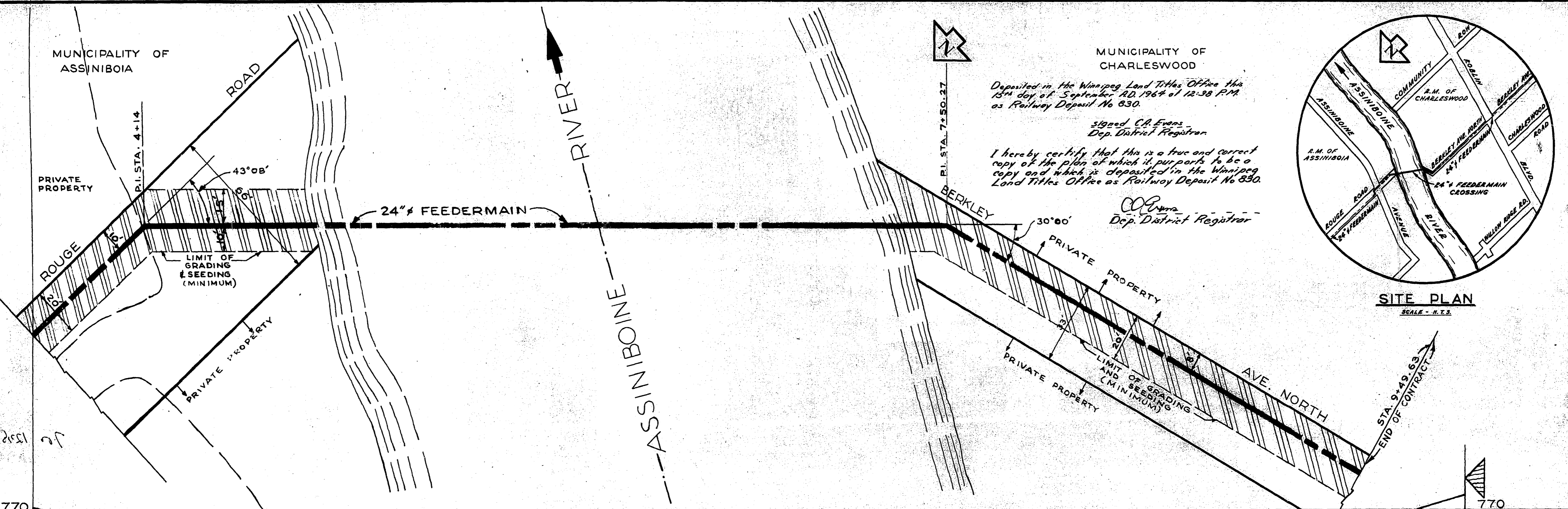
Signed C.A. Evans - Dep. District Registrar

I hereby certify that this is a true and correct copy of the plan of which it purports to be a copy and which is deposited in the Winnipeg Land Titles Office as Railway Deposit No 830.

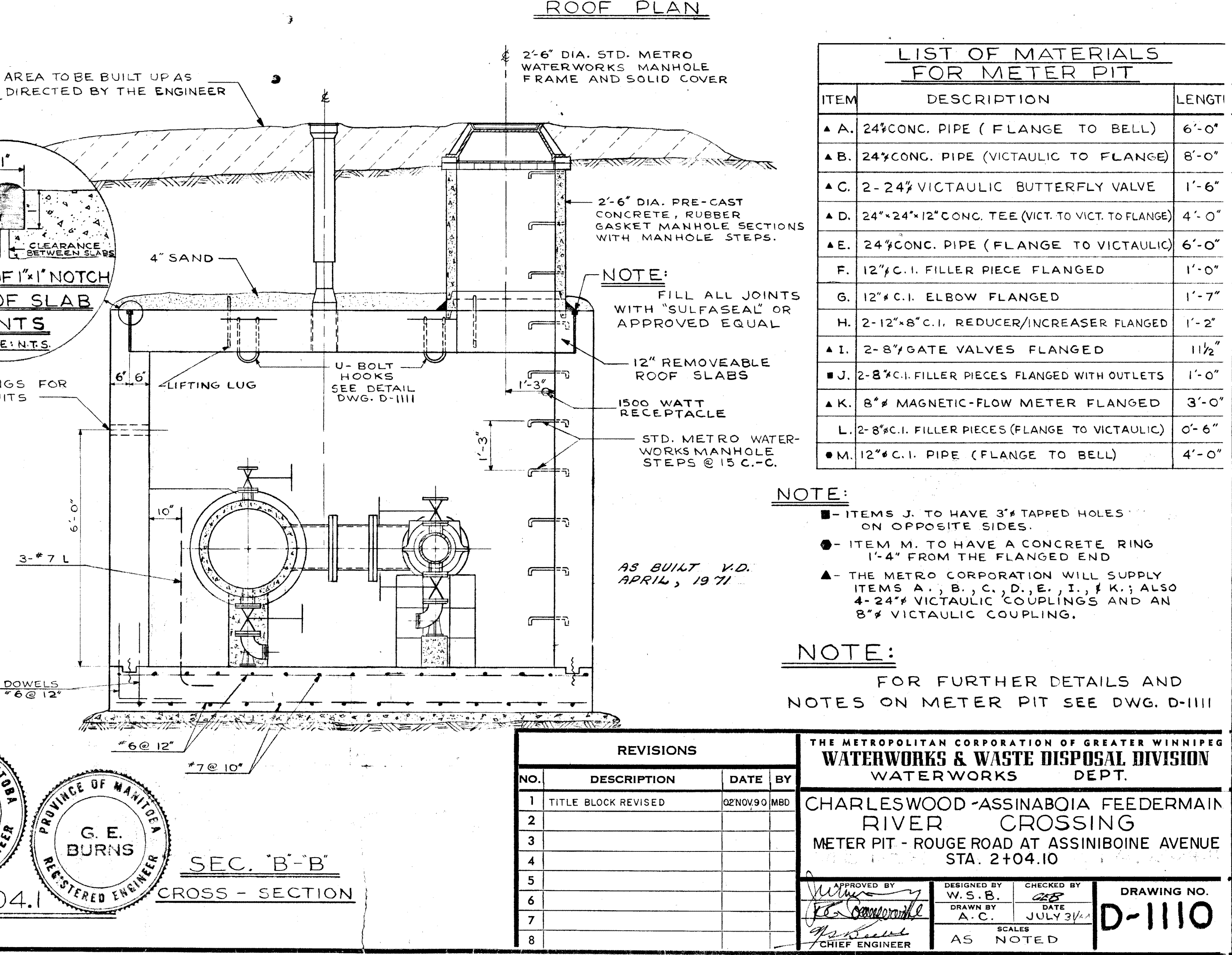
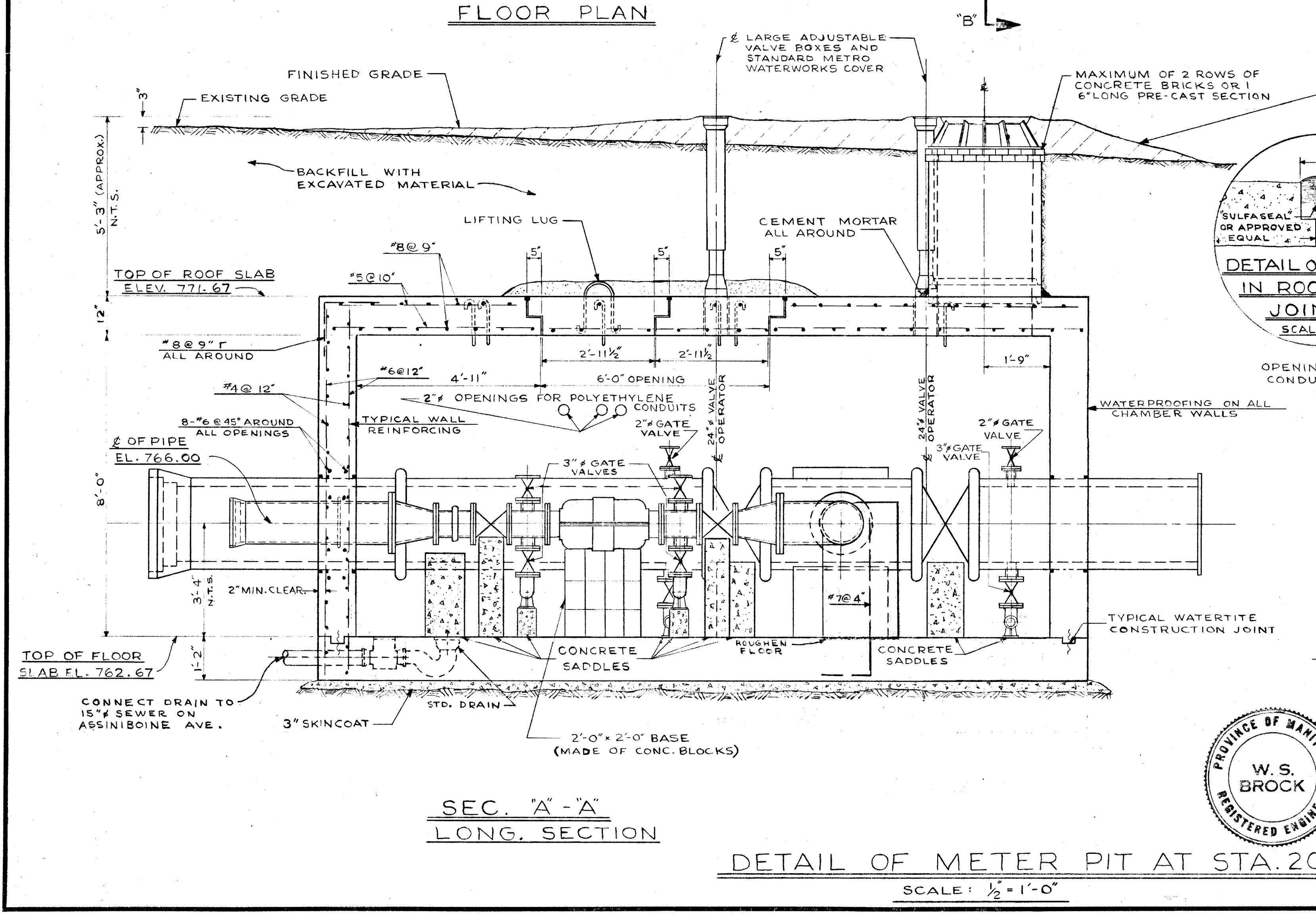
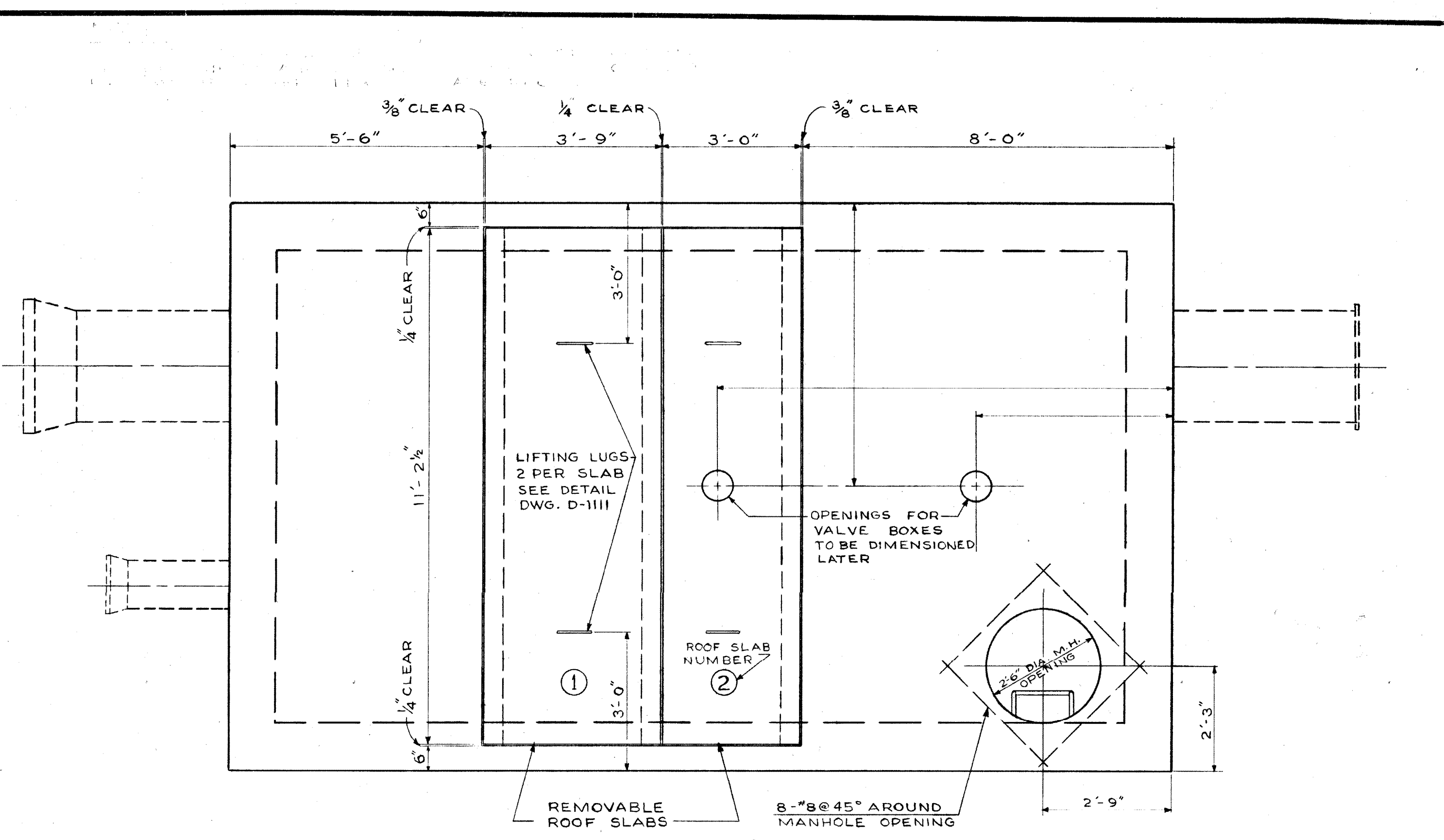
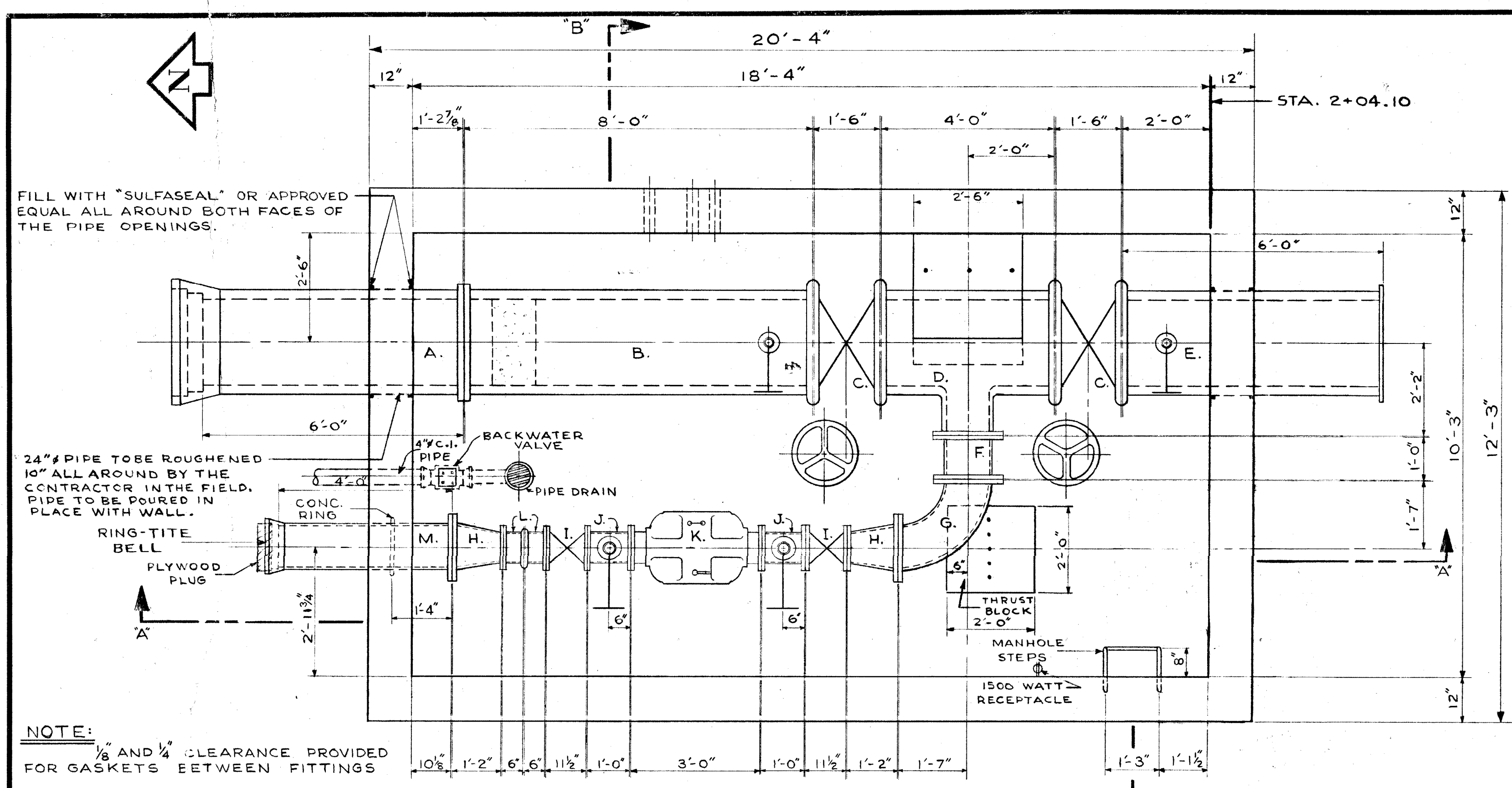
C.A. Evans - Dep. District Registrar



SITE PLAN
SCALE - N.T.S.



THE METROPOLITAN CORPORATION OF THE CITY OF WINNIPEG WATERWORKS & WASTE DISPOSAL DIVISION W. H. WORTH - ENGINEER	WATERWORKS CHARLESWOOD-ASSINIBOIA FEEDER MAIN ASSINIBOINE RIVER CROSSING STA. 9+50 TO STA. 9+95	DATE: JULY 31/64 DRAWING NO: D-1109
---	--	--



LIST OF MATERIALS FOR METER PIT

ITEM	DESCRIPTION	LENGTH
A.	24" CONC. PIPE (FLANGE TO BELL)	6'-0"
B.	24" CONC. PIPE (VICTAULIC TO FLANGE)	8'-0"
C.	2-24" VICTAULIC BUTTERFLY VALVE	1'-6"
D.	24" x 24" x 12" CONC. TEE (VICT. TO VICT. TO FLANGE)	4'-0"
E.	24" CONC. PIPE (FLANGE TO VICTAULIC)	6'-0"
F.	12" C.I. FILLER PIECE FLANGED	1'-0"
G.	12" C.I. ELBOW FLANGED	1'-7"
H.	2-12" x 8" C.I. REDUCER/INCREASER FLANGED	1'-2"
I.	2-8" GATE VALVES FLANGED	11 1/2"
J.	2-8" C.I. FILLER PIECES FLANGED WITH OUTLETS	1'-0"
K.	8" # MAGNETIC-FLOW METER FLANGED	3'-0"
L.	2-8" C.I. FILLER PIECES (FLANGE TO VICTAULIC)	0'-6"
M.	12" C.I. PIPE (FLANGE TO BELL)	4'-0"

NOTE:

- ITEMS J. TO HAVE 3/4" TAPPED HOLES ON OPPOSITE SIDES
- ITEM M. TO HAVE A CONCRETE RING 1'-4" FROM THE FLANGED END
- THE METRO CORPORATION WILL SUPPLY ITEMS A., B., C., D., E., I., J., K., L. ALSO 4-24" VICTAULIC COUPLINGS AND AN 8" VICTAULIC COUPLING.

NOTE:

FOR FURTHER DETAILS AND NOTES ON METER PIT SEE DWG. D-1111

PROVINCE OF MANITOBA
REGISTERED ENGINEER
W. S. BROCK

PROVINCE OF MANITOBA
REGISTERED ENGINEER
G. E. BURNS

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	TITLE BLOCK REVISED	02NOV90	MBD
2			
3			
4			
5			
6			
7			
8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG
WATERWORKS & WASTE DISPOSAL DIVISION
WATERWORKS DEPT.

CHARLESWOOD-ASSINABOIA FEEDERMAIN RIVER CROSSING
METER PIT - ROUGE ROAD AT ASSINIBOINE AVENUE
STA. 2+04.10

APPROVED BY: [Signature]
DESIGNED BY: W. S. B.
DRAWN BY: A. C.
CHECKED BY: [Signature]
DATE: JULY 31/71

DRAWING NO. **D-1110**

SCALE: AS NOTED

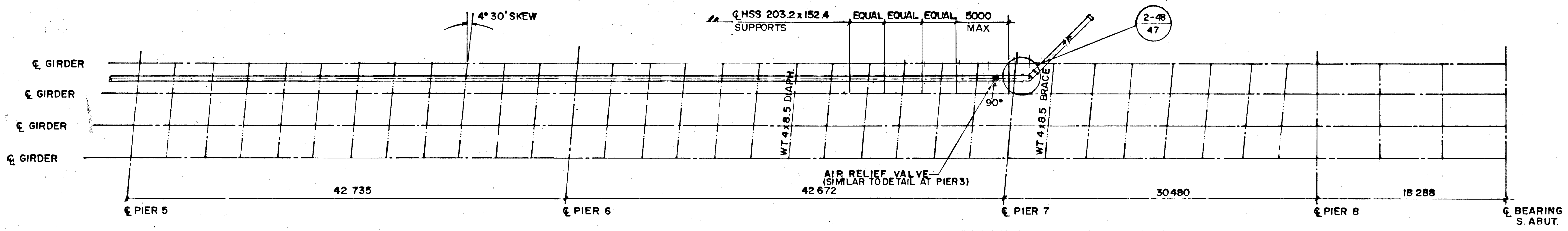
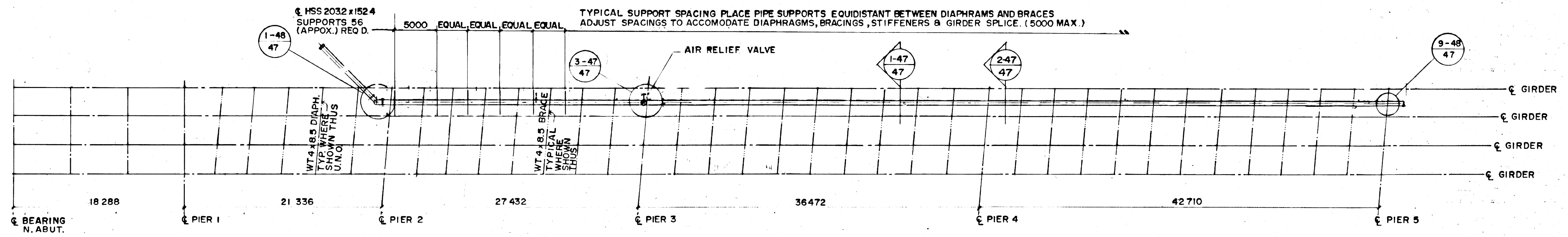
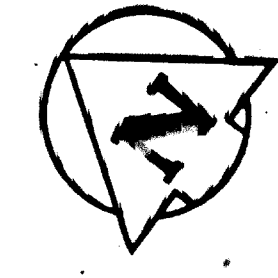
DETAIL OF METER PIT AT STA. 204.1
SCALE: 1/2" = 1'-0"

file # FM10115

1328

REF. or DRAWING NO.

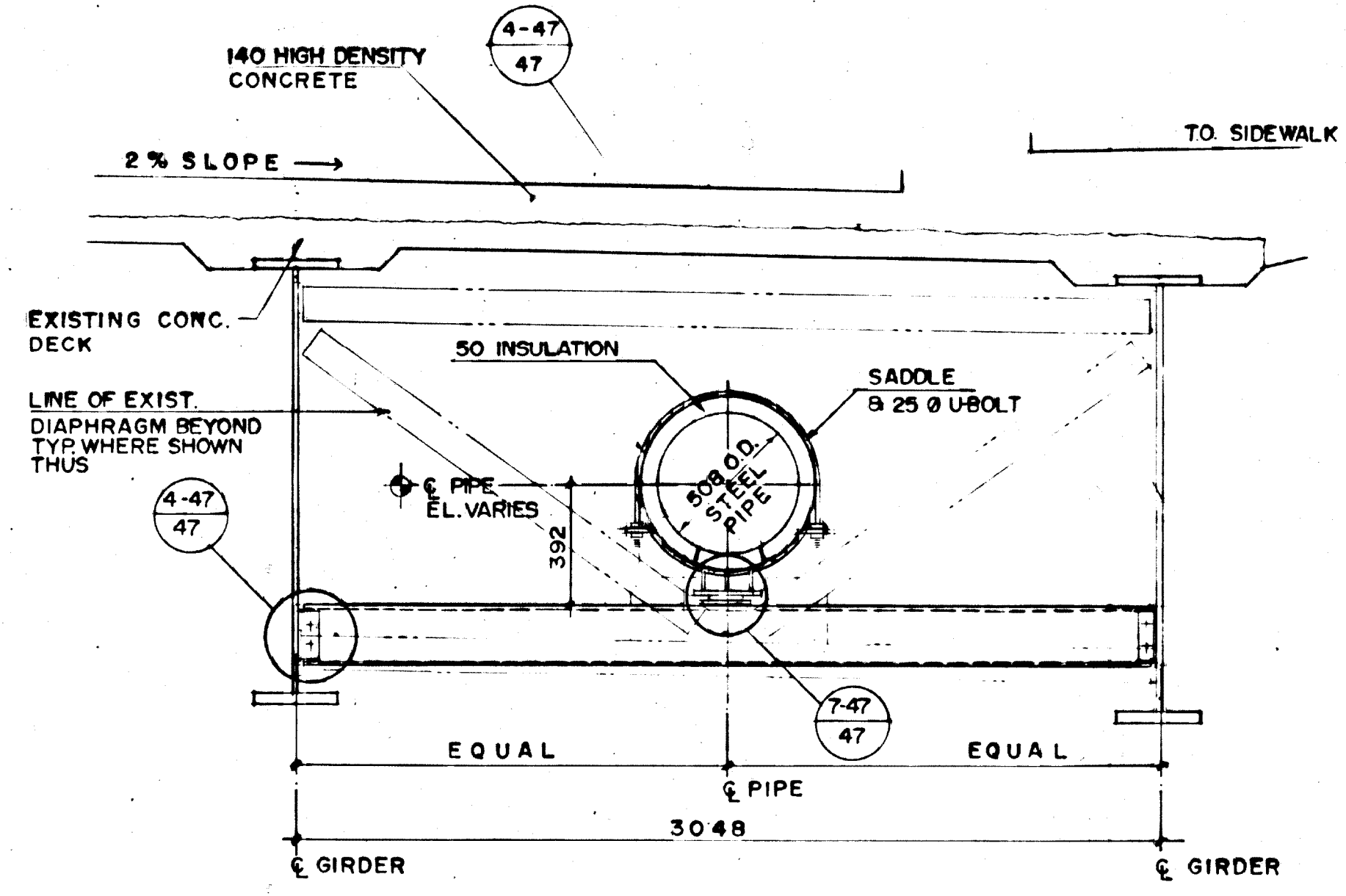
DETAILS



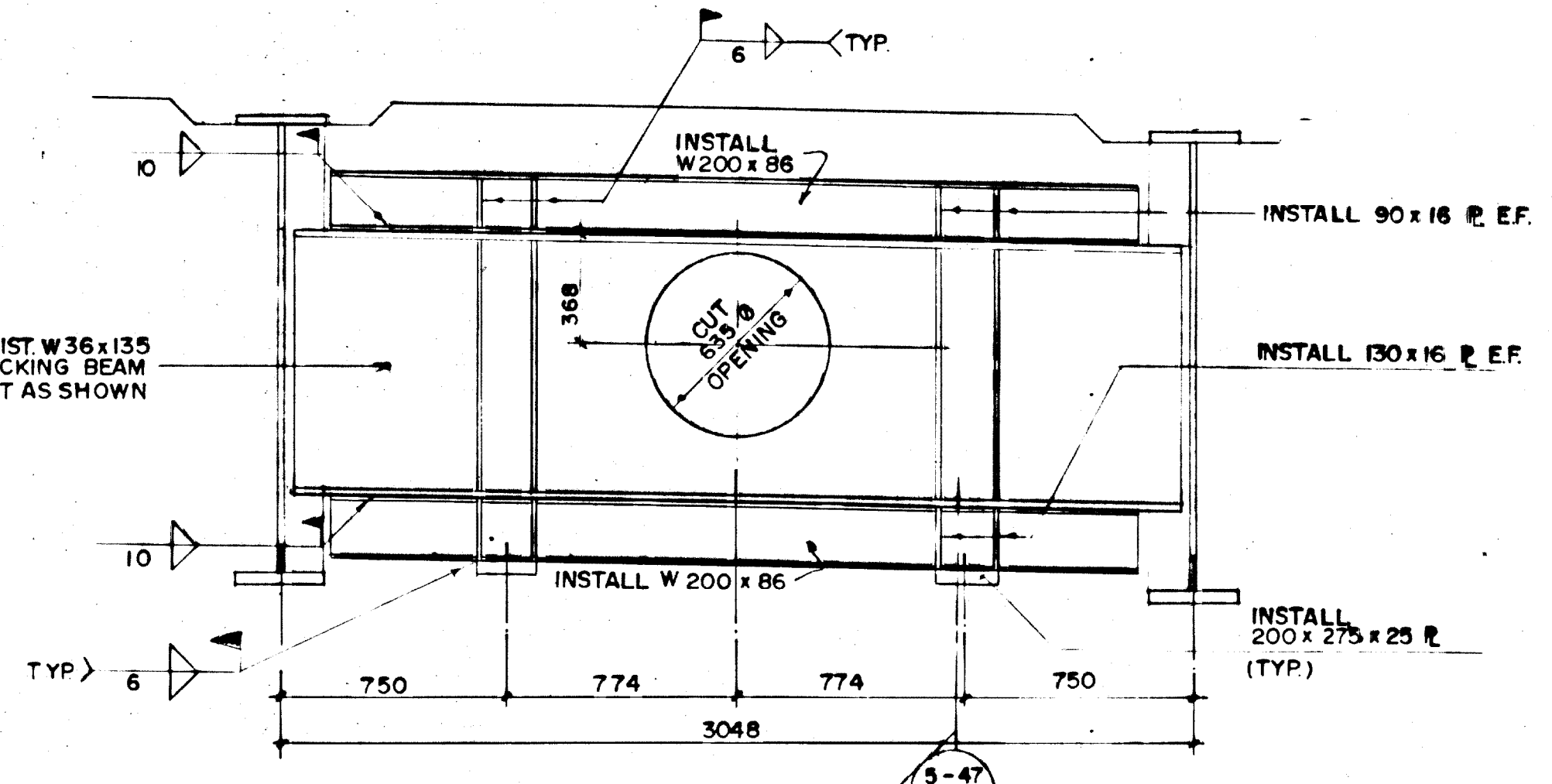
FOR EXTENSION OF AIR RELEASE VALVE AT PIER 7 SEE DRAWING 1351

SEWAGE FORCEMAIN LAYOUT NORTHBOUND STRUCTURE

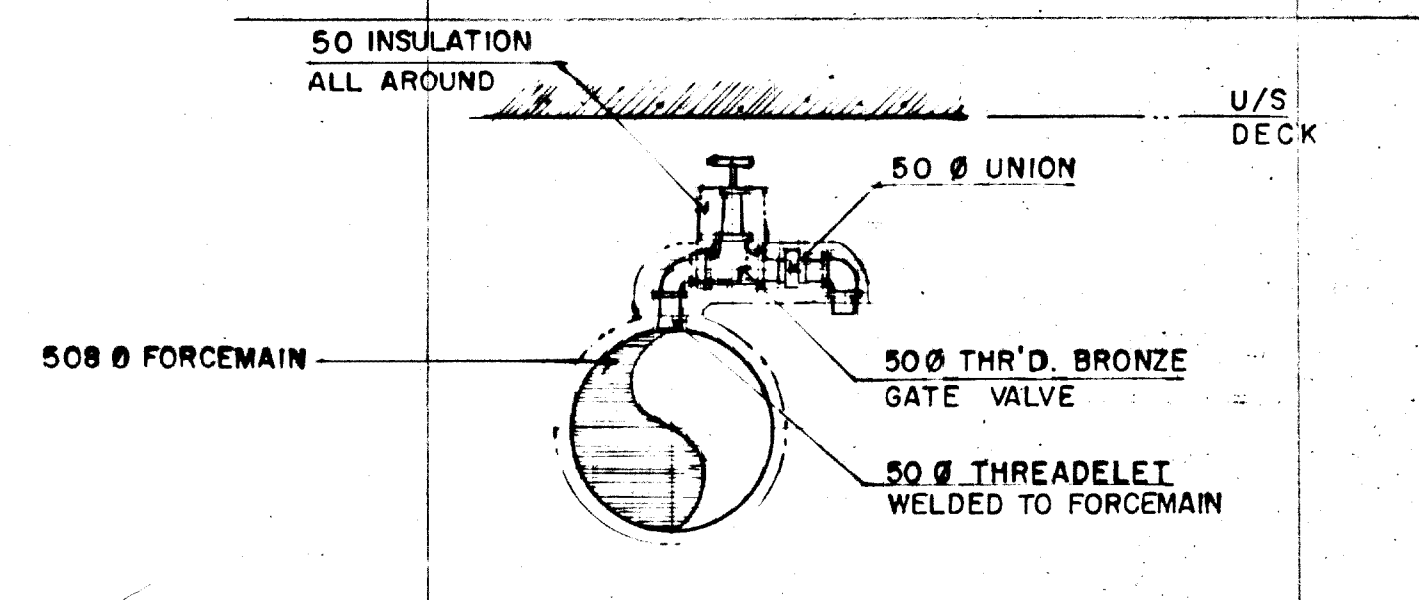
SCALE 1:250



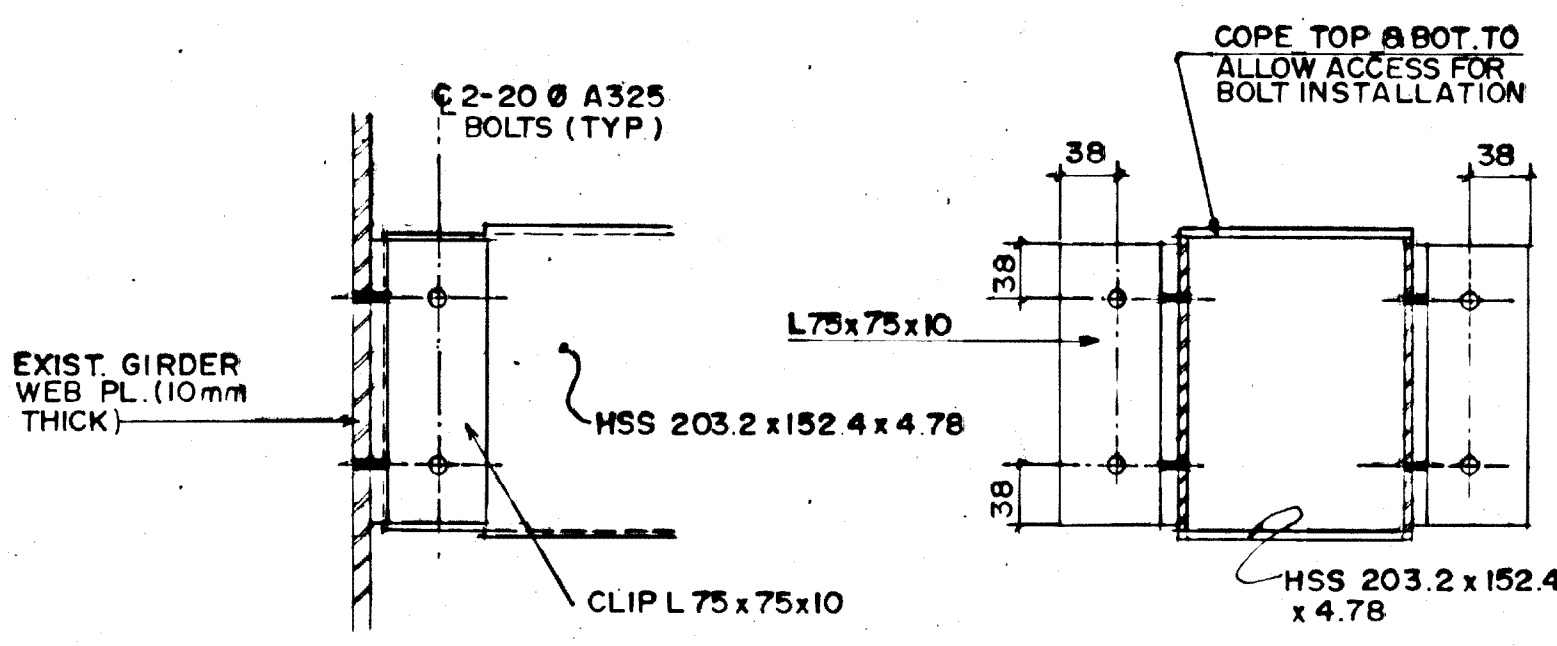
1-47 SECTION SCALE 1:20



2-47 SECTION SCALE 1:20



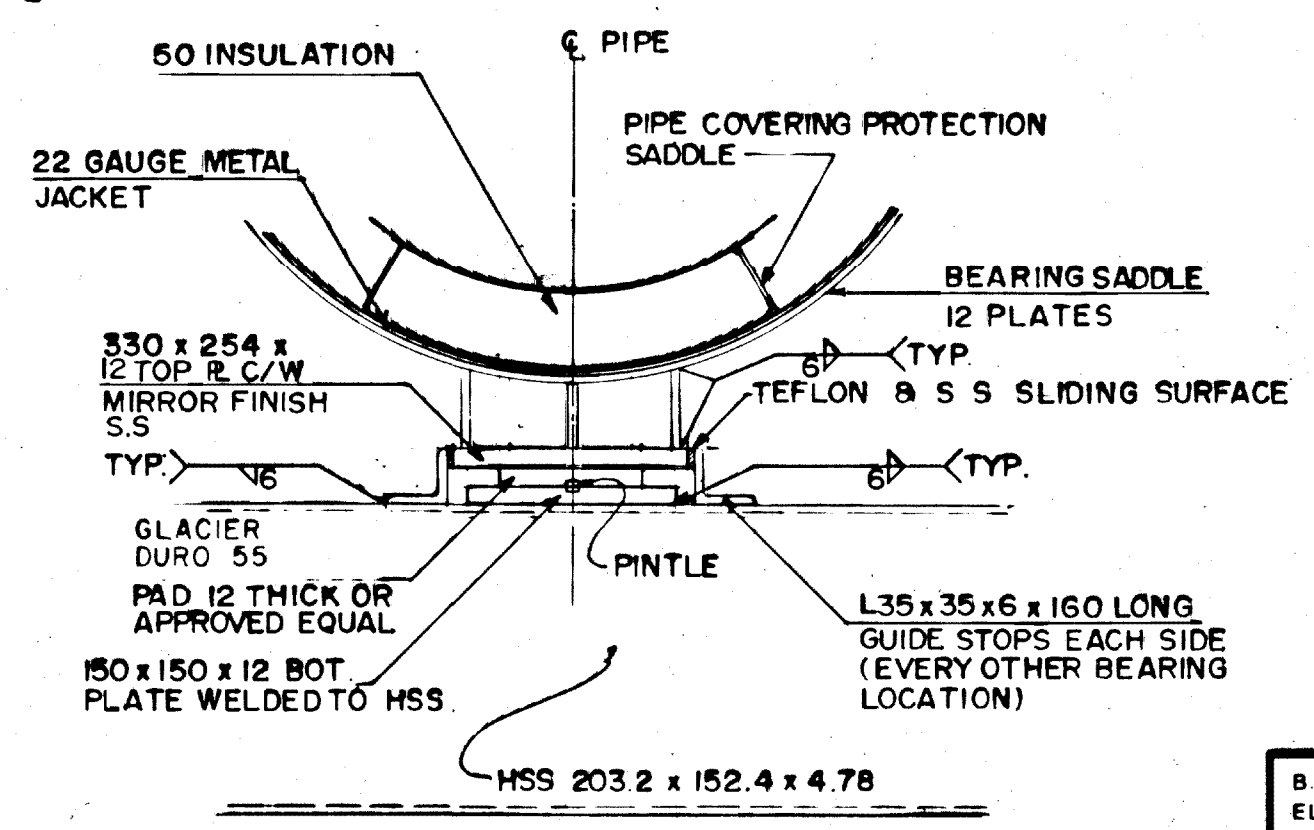
3-47 DETAIL SCALE 1:20



ELEVATION

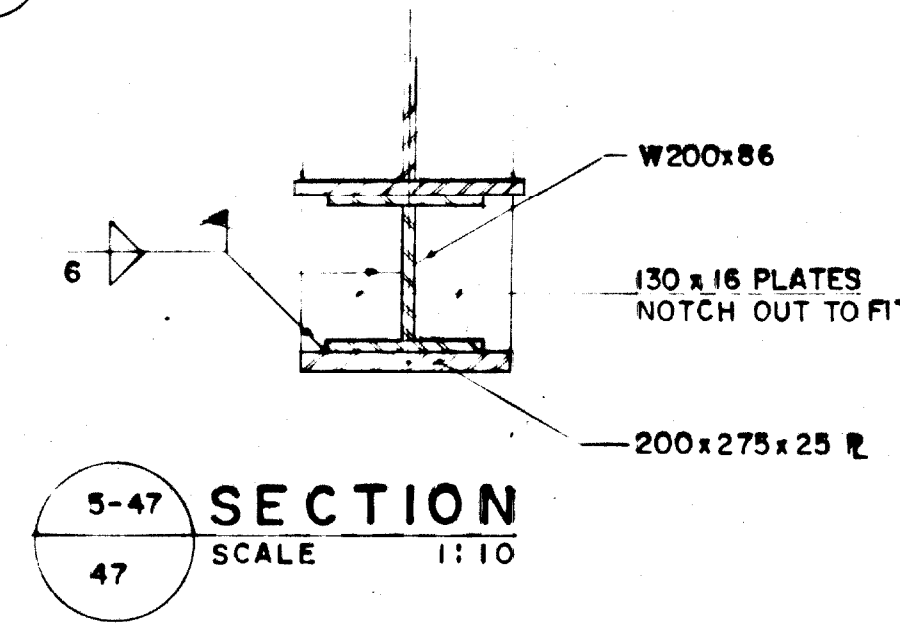
SECTION

4-47 DETAIL SCALE 1:5



7-47 BEARING DETAIL SCALE 1:5

NOTE:
 BEARINGS SUPPLIED BY WG BEARING INC.
 BURLINGTON ON.
 PROJECT NO. P1656-87



5-47 SECTION SCALE 1:10

Reid Crowther Reid Crowther & Partners Ltd. Engineers-Planners-Scientists		ENGINEER'S SEAL 		THE CITY OF WINNIPEG WORKS AND OPERATIONS DIVISION WATERWORKS, WASTE & DISPOSAL DEPT.	
DESIGNED BY: B.E. DRAWN BY: R.C.S.	CHECKED BY: W.J.M. APPROVED BY:	ST. VITAL TWIN BRIDGE OVER RED RIVER STRUCTURE REHABILITATION AND RELATED WORKS		CITY DRAWING NUMBER: B116-88-47 SHEET: 47 OF 48	
2 ADDED NOTE 1 AS CONSTRUCTED	06/92 EN 09-6-13 KFK	HOR. SCALE: AS SHOWN VERTICAL: AS SHOWN	BALTIMORE SEWAGE FORCEMAIN LAYOUT & DETAILS	CONSULTANT DRAWING NO. 61056-01 1328	

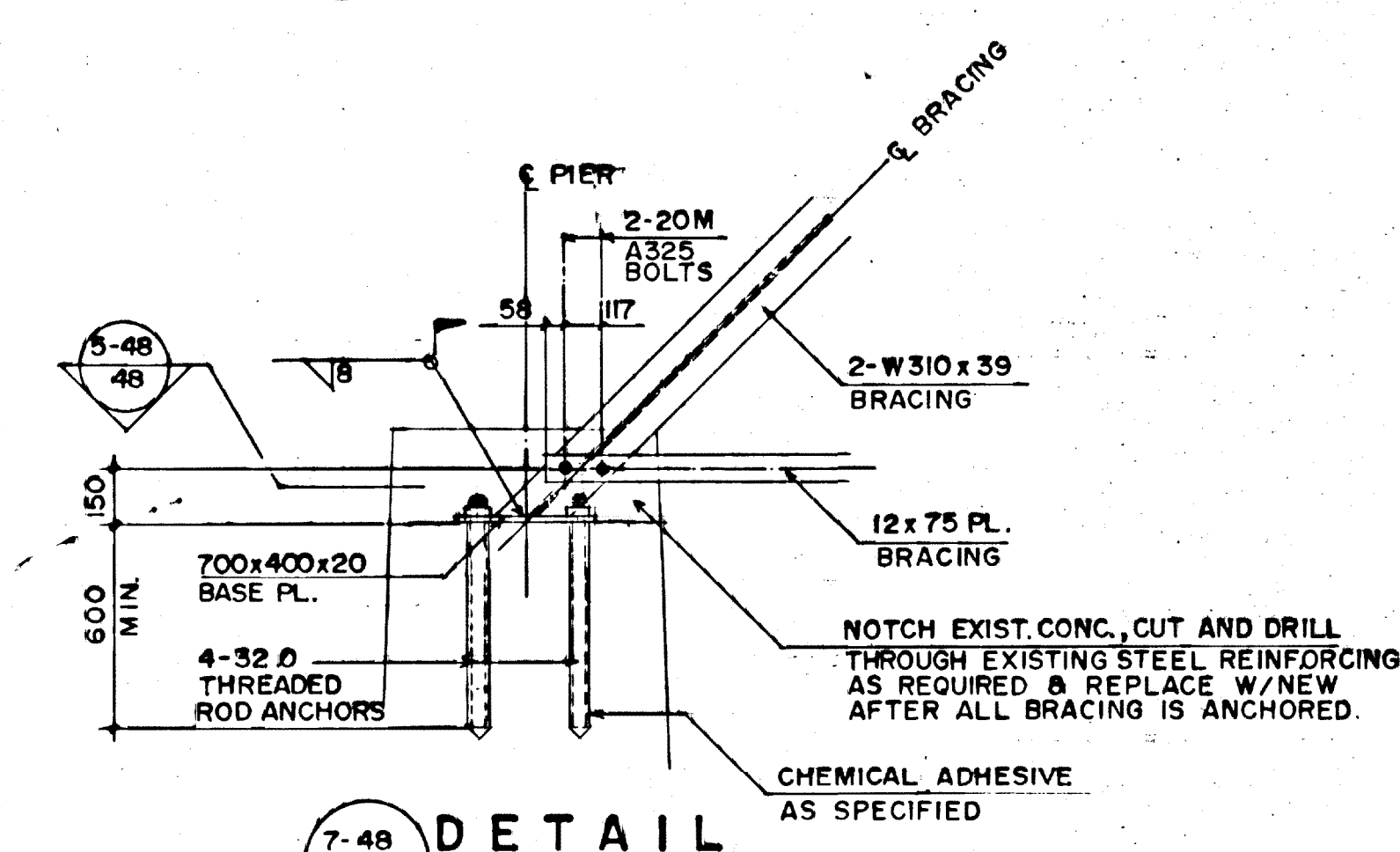
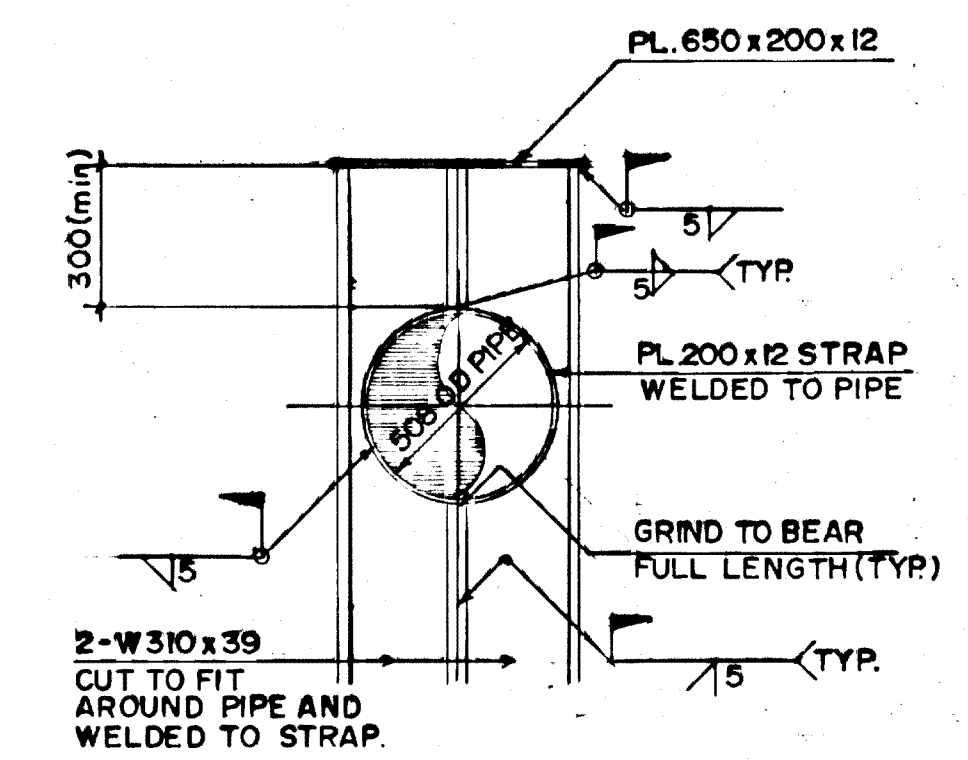
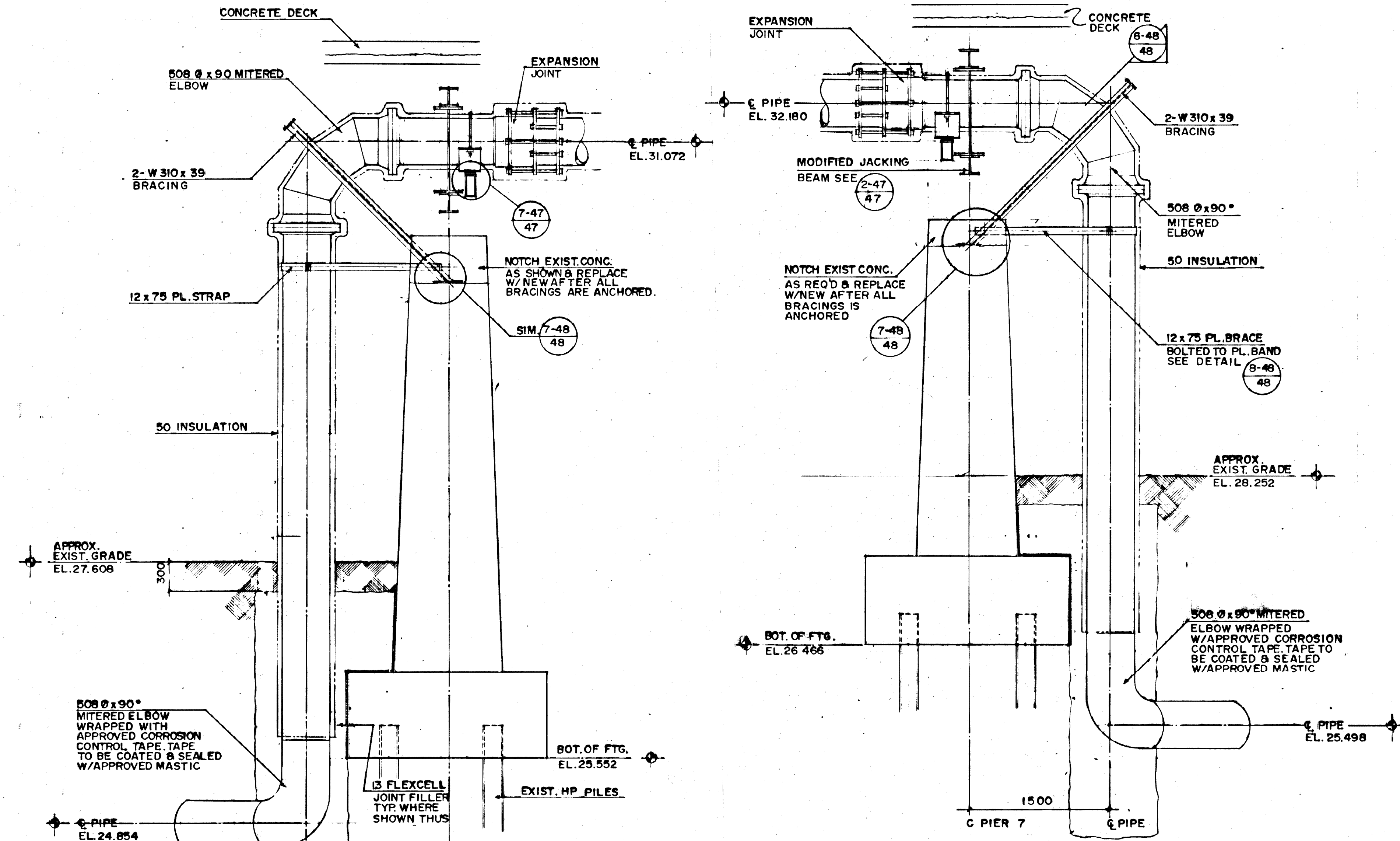
REID, CROWTHER & PARTNERS LIMITED
 WINNIPEG
AS CONSTRUCTED
 DATE: 89-06-14

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

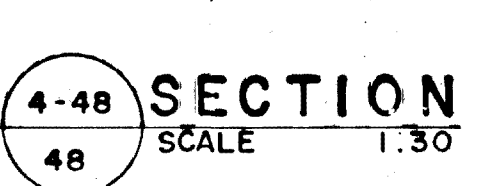
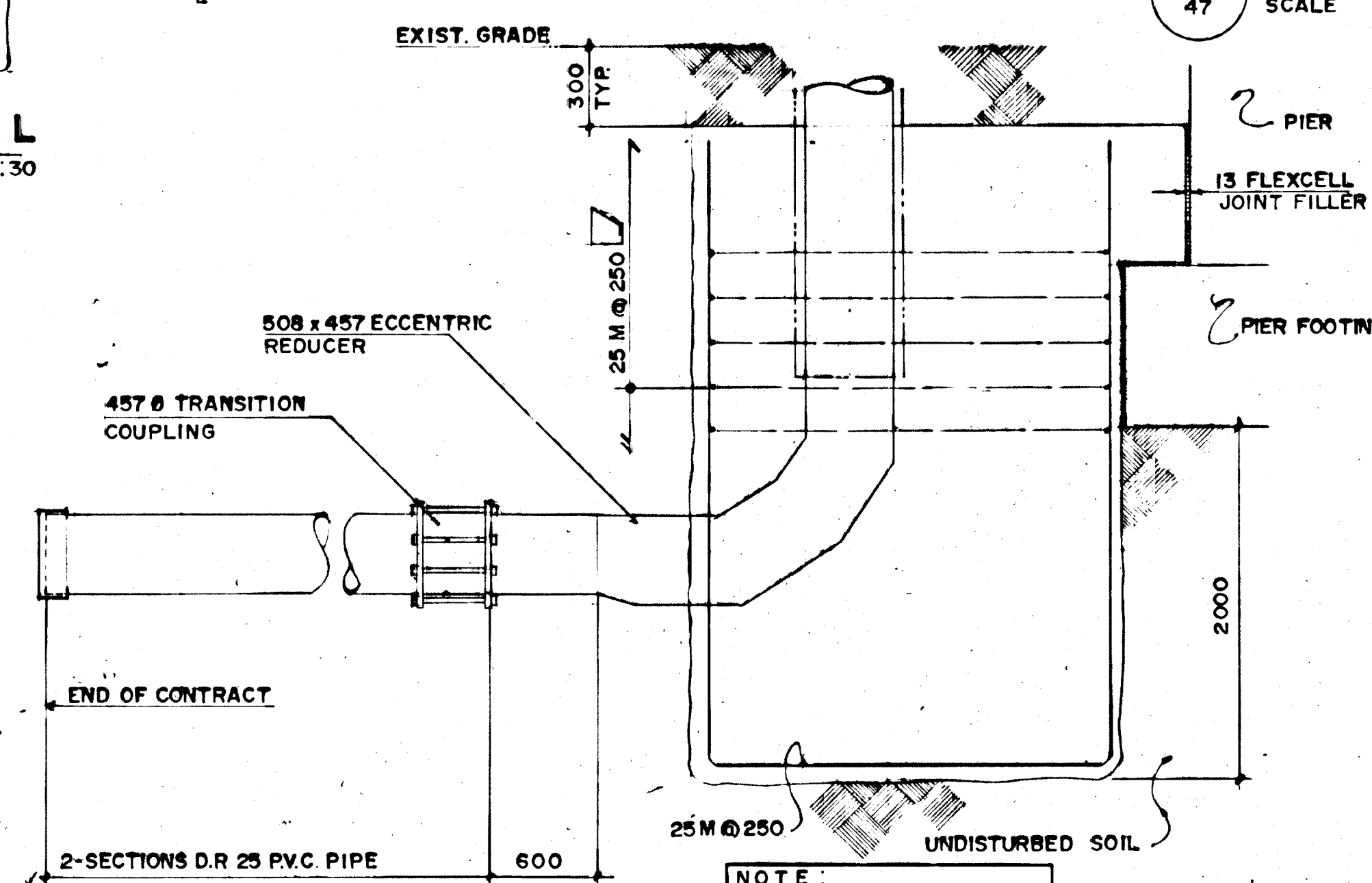
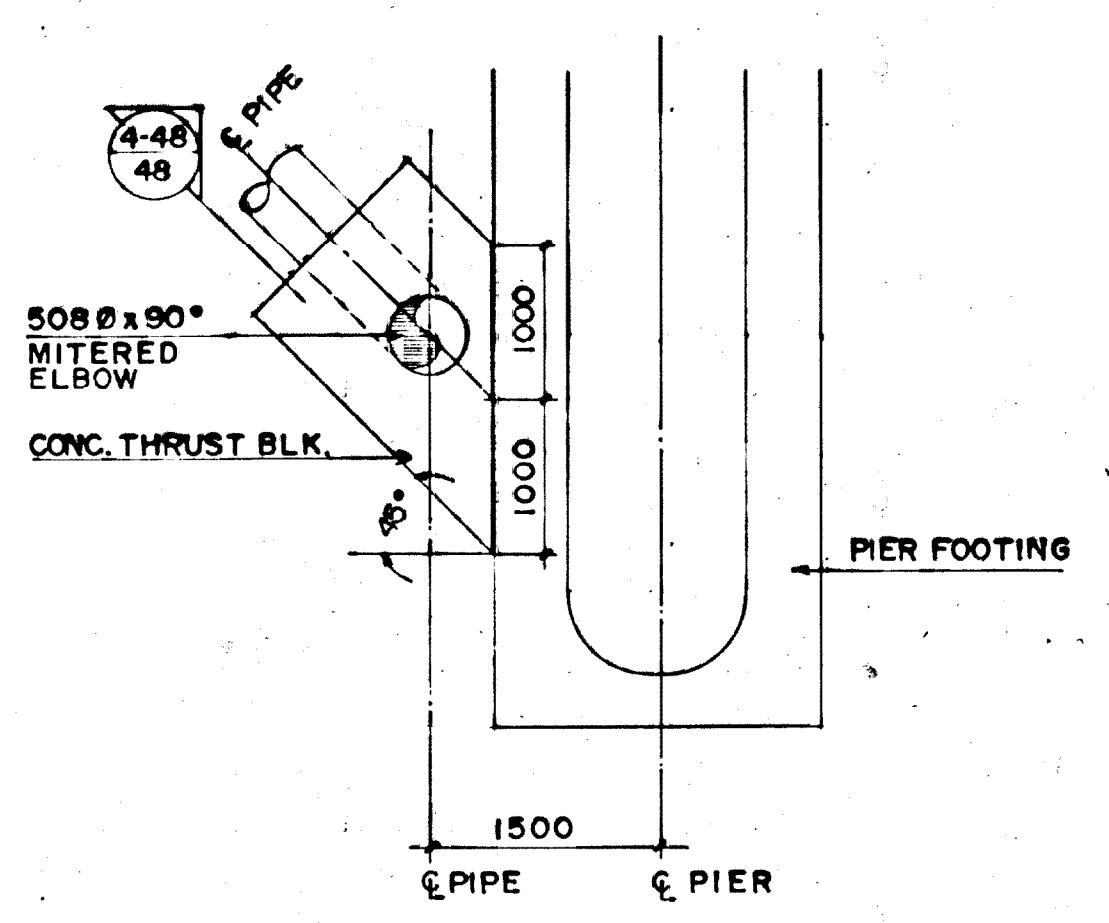
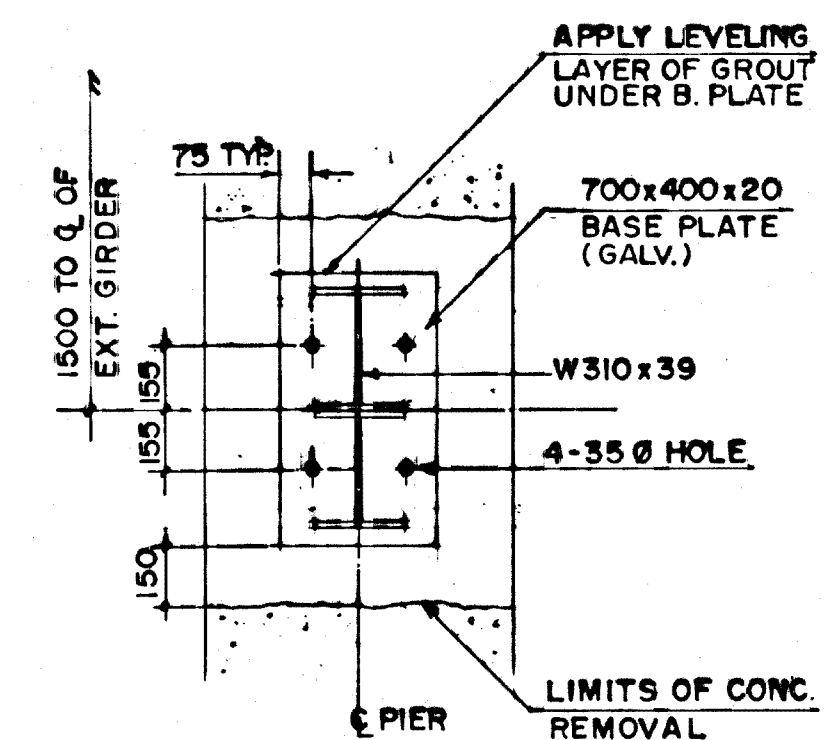
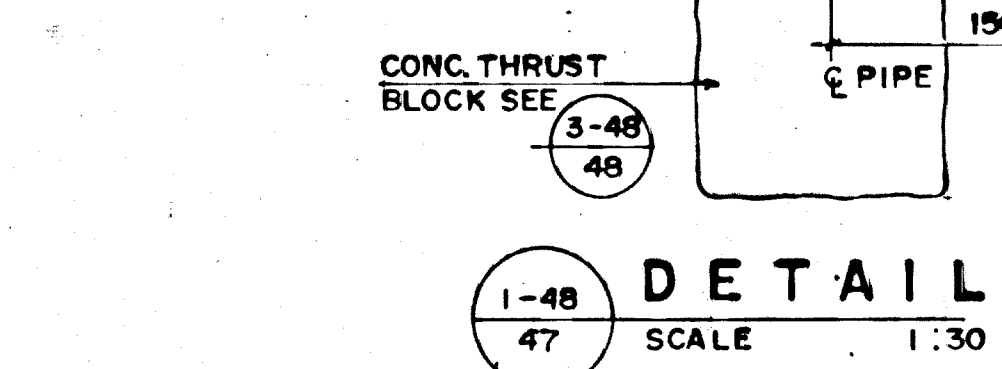
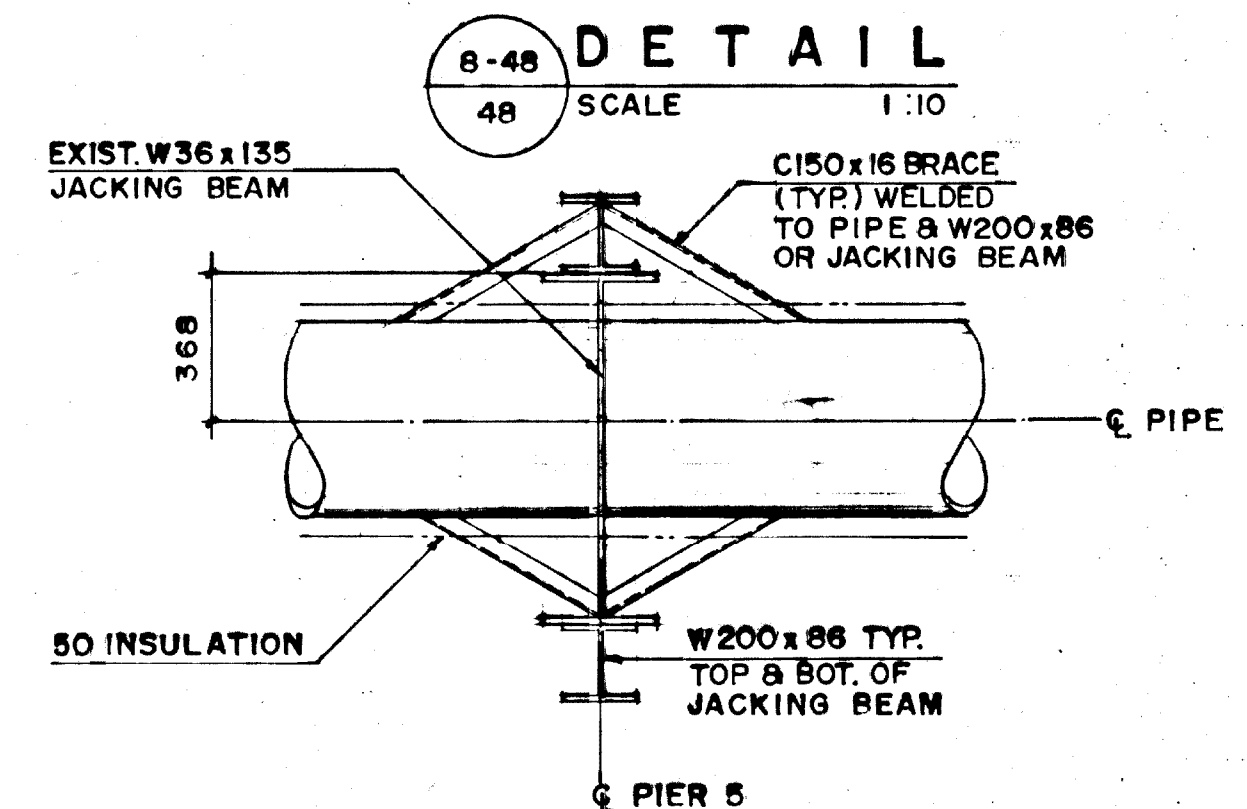
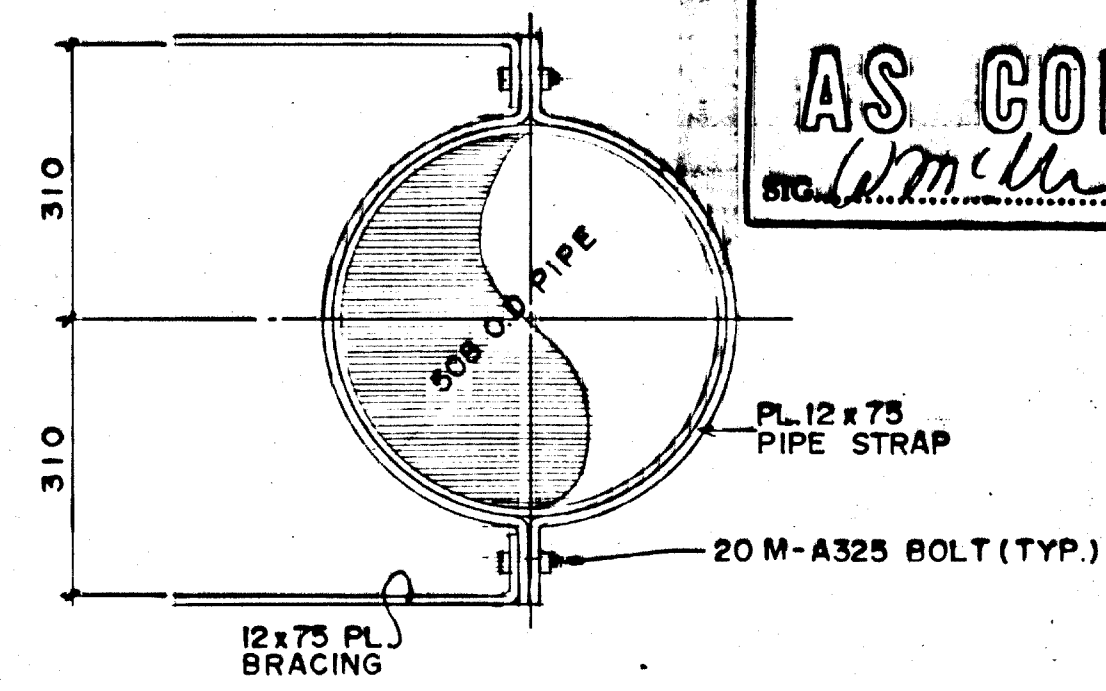
file # FM10115 1328

file # FM 10/16

REF. OF DRAWING NO. 1329 DETAILS



REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
DATE 89-06-13



NOTE:
REDUCER, SPOOL & COUPLING
WRAPPED W/APPROVED CORROSION
CONTROL TAPE TAPE TO
BE COATED & SEALED WITH
APP'D. MASTIC

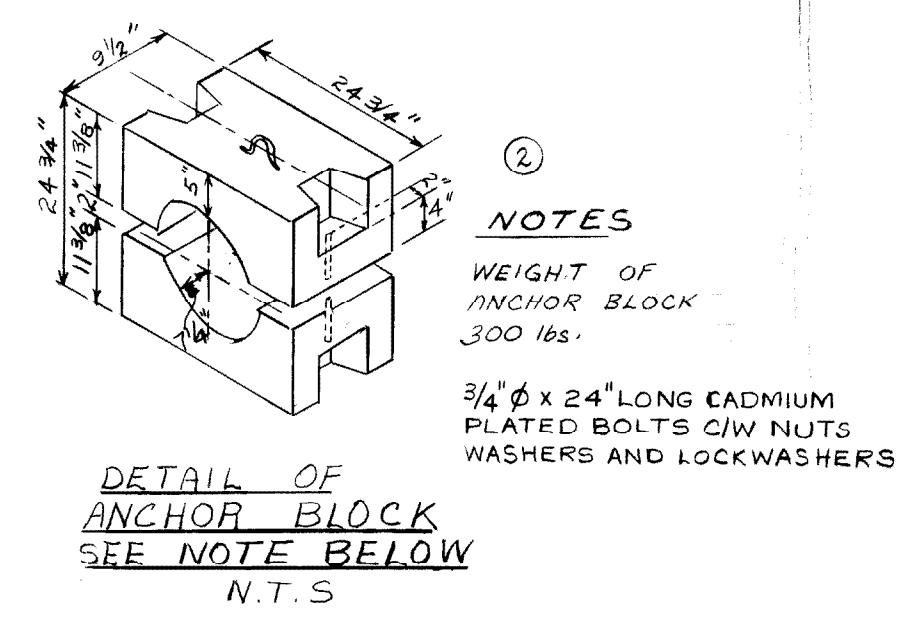
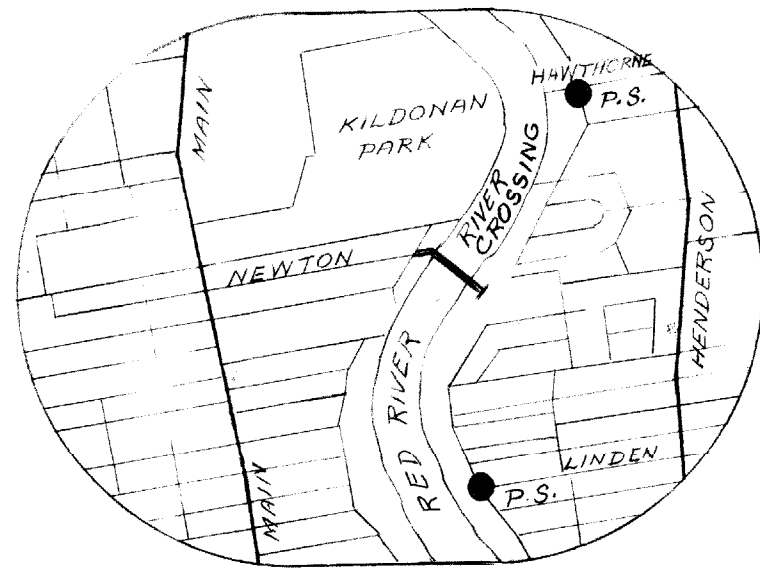
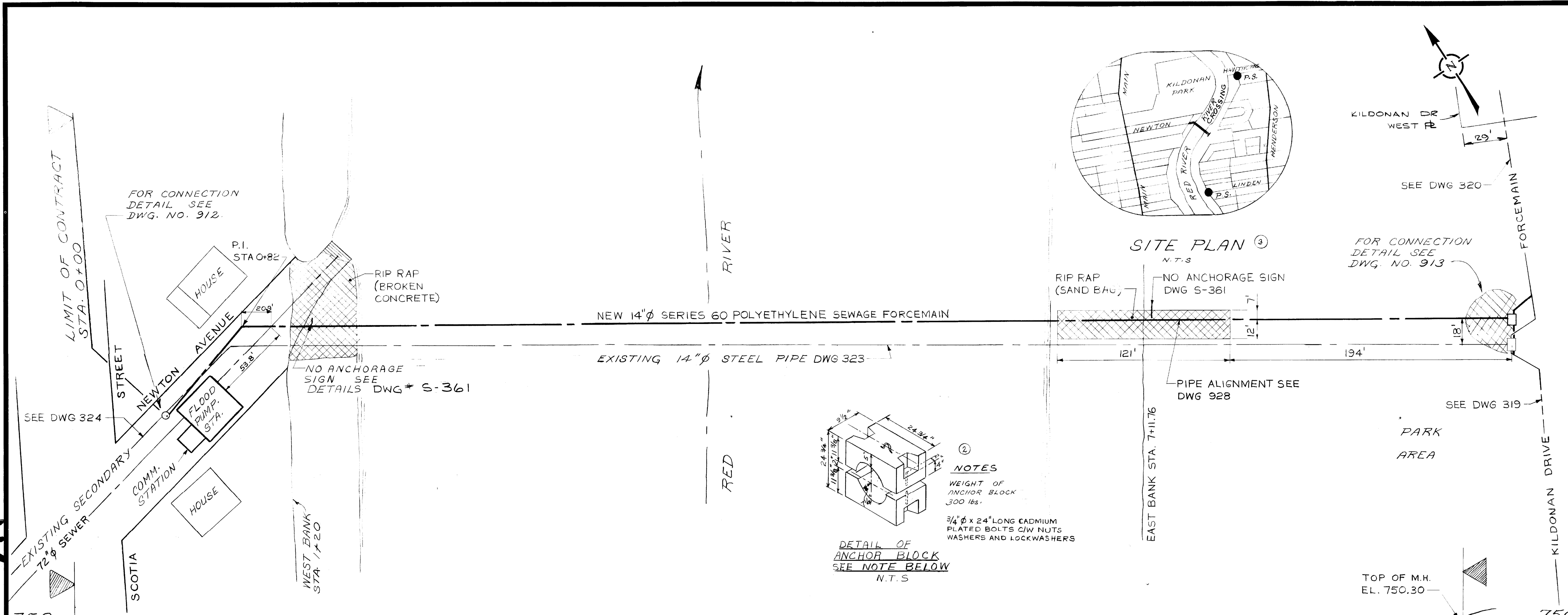
NOTE: ALL SEWAGE FORCEMAIN STRUCTURAL
STEEL AND MISCELLANEOUS METAL NOT
DIP GALVANIZED EXCEPT PIPE SUPPORT
COMPONENTS AND JACKING BEAM MODI-
FICATIONS TO BE PAINTED.

B.M. ELEV.					
Reid Crowther		Reid Crowther & Partners Ltd. Engineers-Planners-Scientists		ENGINEER'S SEAL PROVIDE OF PARTNERS 88-01-08 B. CROWTHER REGISTERED ENGINEER	
DESIGNED BY	B.E.	CHECKED BY	W.J.M.	CONSULTANT DRAWING NO. 61056-02	
DRAWN BY	R.C.S.	APPROVED BY	<i>W.M.P.</i>	CITY DRAWING NUMBER B116-88-48	
HOR. SCALE: 1:20 U.N.O.		AUTHORIZED BY STREETS & BRIDGE ENGINEER / DATE 11/1/88		SHEET 48 OF 48	
VERTICAL:		DATE		SEWAGE FORCEMAIN SECTIONS & DETAILS	
NO. REVISIONS	DATE	BY	DATE	1329	
1	AS CONSTRUCTED	89-6-13	KPK		

THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
WATERWORKS, WASTE & DISPOSAL DEPT.
ST. VITAL TWIN BRIDGE OVER RED RIVER
STRUCTURE REHABILITATION AND
RELATED WORKS
BALTIMORE
SEWAGE FORCEMAIN
SECTIONS & DETAILS
1329

file # FM 10/16 1329

911



LEGEND

WATERWORKS, WASTE AND DISPOSAL; UNDERGROUND UTILITIES

PROPOSED FORCEMAIN, INTERCEPTOR OR SECONDARY SEWER _____

EXISTING FORCEMAIN, INTERCEPTOR OR SECONDARY SEWER _____ W.W.D. 24\"/>

PROPOSED FEEDERMAIN _____

EXISTING FEEDERMAIN _____ W.W.D. 24\"/>

W.W.D. _____ WATERWORKS, WASTE AND DISPOSAL

OTHER UNDERGROUND UTILITIES

COMMUNITY SEWER _____

COMMUNITY WATERMAIN _____

GAS _____

HYDRO DUCT _____

M.T.S. DUCT OR CABLE _____

STREET LIGHTING, RAILWAY SIGNAL OR TRAFFIC SIGNAL CABLE _____

SURFACE UTILITIES

COMMUNITY BOUNDARY LINE _____

FENCE LINE _____ X X

POLE LINE _____

RAILWAY LINE _____

MISCELLANEOUS SYMBOLS

CATCH BASIN _____

CULVERT _____

HYDRANT _____

MANHOLE _____

HYDRO OR M.T.S. POLE _____

LAMP STANDARD _____

RAILWAY OR TRAFFIC SIGNAL STANDARD _____

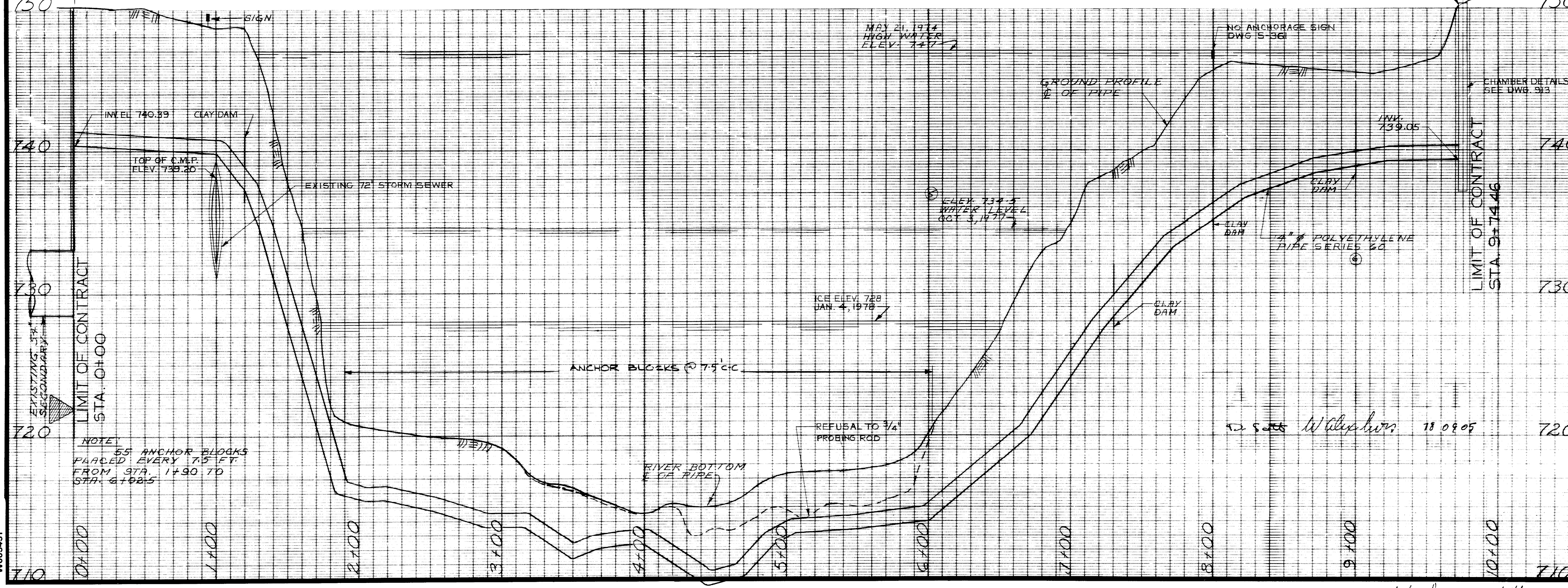
SURVEY BAR _____

TREE _____

VALVE _____

NOTES

1.



REVISIONS

NO.	DESCRIPTION	DATE	BY
7	REVISED TO AS BUILT	AUG 18/78	VD.
6	SERIES 80 CHANGED TO 60	OCT 17/77	VD.
5	SUMMER WATER LEVEL ADDED	OCT 17/77	VD.
4	NOTE - PIPE ALIGNMENT	OCT 17/77	VD.
3	SITE PLAN REVISED	OCT 17/77	VD.
2	ANCHOR BLOCK DIM. CHANGED, NOTE ADDED	OCT 17/77	VD.
1	RIVER CROSSING X-SECTION REMOVED	OCT 17/77	VD.

REVISIONS

FIELD BOOK(S) NO. F 772	SURVEYED BY R. THPLIN
LAND SURVEY PLAN(S) NO.	DATE NOV. 1, 1976
B.M. GEO. B-12-005	

The City of Winnipeg
Waterworks, Waste and Disposal Division

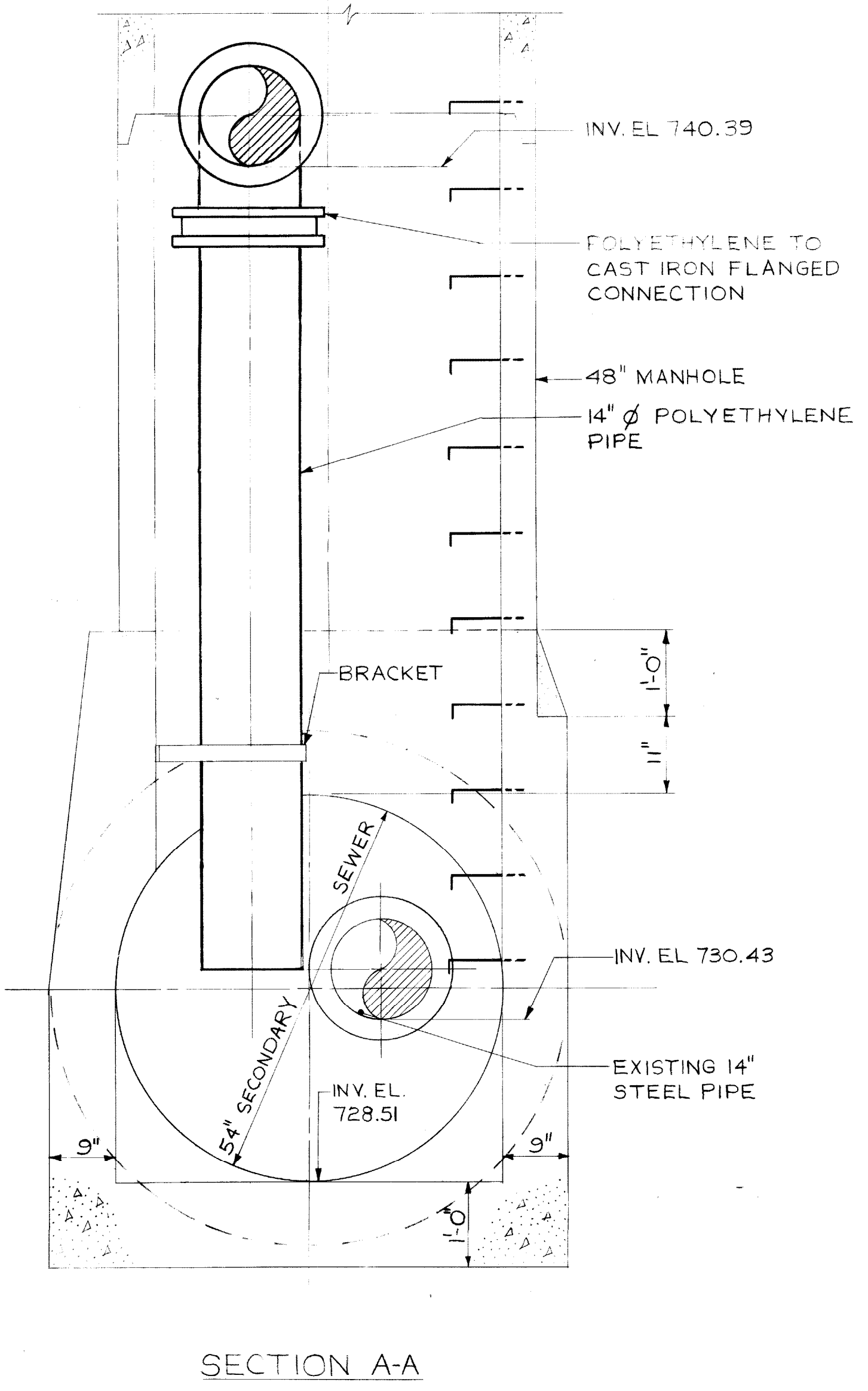
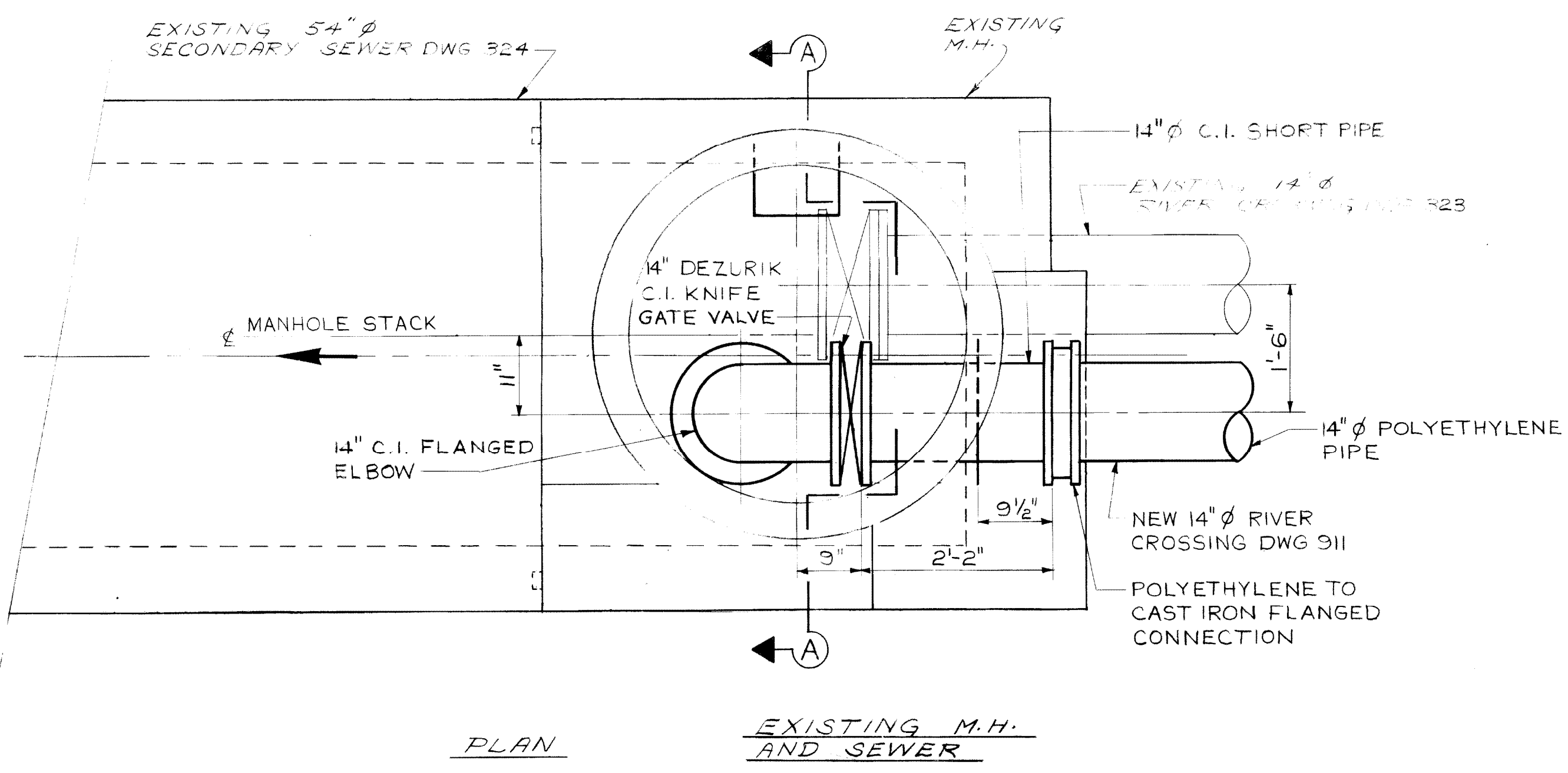
ENGINEERING BRANCH
WASTE DISPOSAL

NEWTON RIVER X-ING
PLAN PROFILE

DESIGNED BY B. BRICK	DRAWN BY V. DUMORE
CHECKED BY Jaw Wmcker	DATE JUNE 1971
APPROVED BY M. L. P.	
SCALE HOR. - 1" = 40' VERT. - 1" = 4'	DRAWING NO. 911

file # MS 10641

MICROFILMED, MAY 11, 1993



D. Sect *W. D. Wilson* 78 of 11

NO.	DESCRIPTION	DATE	BY
4	REVISED TO AS BUILT	AUG 24/78	<i>BB</i>
3	1/8" RUBBER GASKET	OCT 6/77	BB
2	FILLER PLATE DIMENSION CHANGE	OCT 6/77	BB
1	SERIES 80 CHANGED TO 60	OCT 6/77	BB

REVISIONS

The City of Winnipeg
Waterworks, Waste and Disposal Division

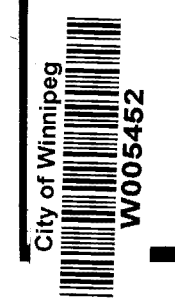
ENGINEERING BRANCH
WASTE DISPOSAL

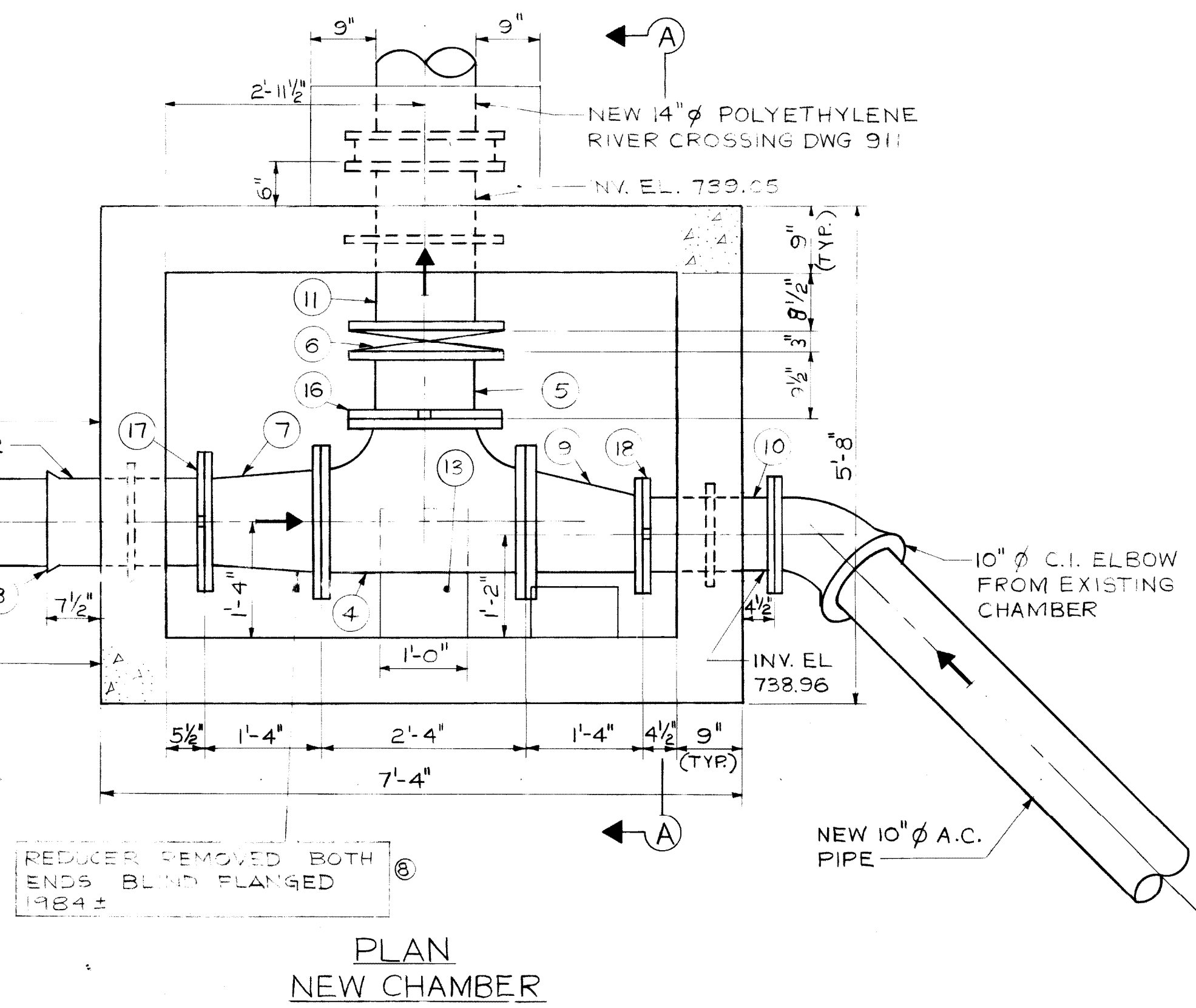
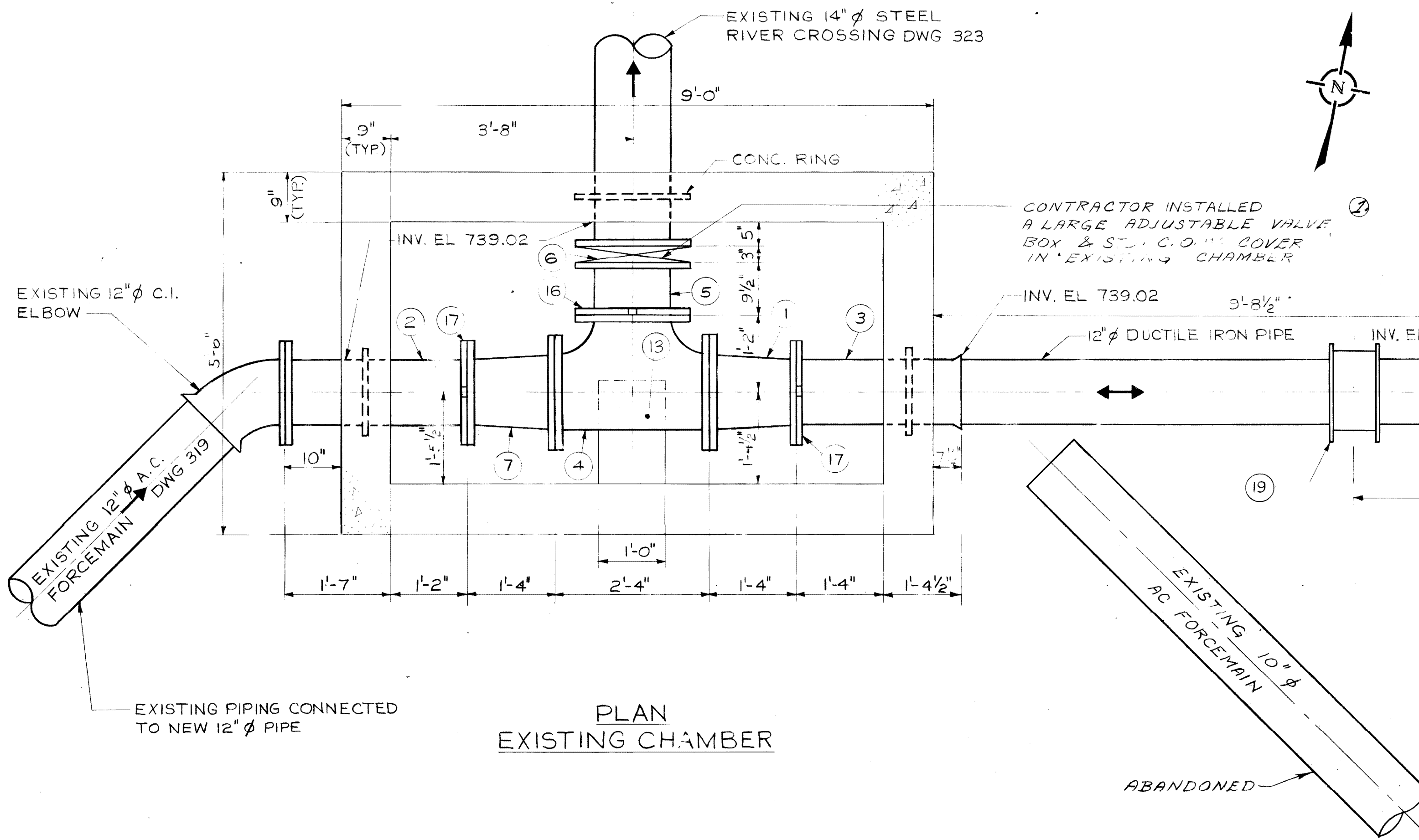
NEWTON RIVER X-ING
NEWTON AVE. & SCOTIA ST.
CONNECTION DETAILS
TO 54" ϕ SECONDARY

DESIGNED BY B BRICK	DRAWN BY V.D.
CHECKED BY <i>[Signature]</i>	DATE JUNE 1977
APPROVED BY <i>[Signature]</i>	
SCALE 3/4" = 1'-0"	DRAWING NO. 912

file # MS10642

9/8

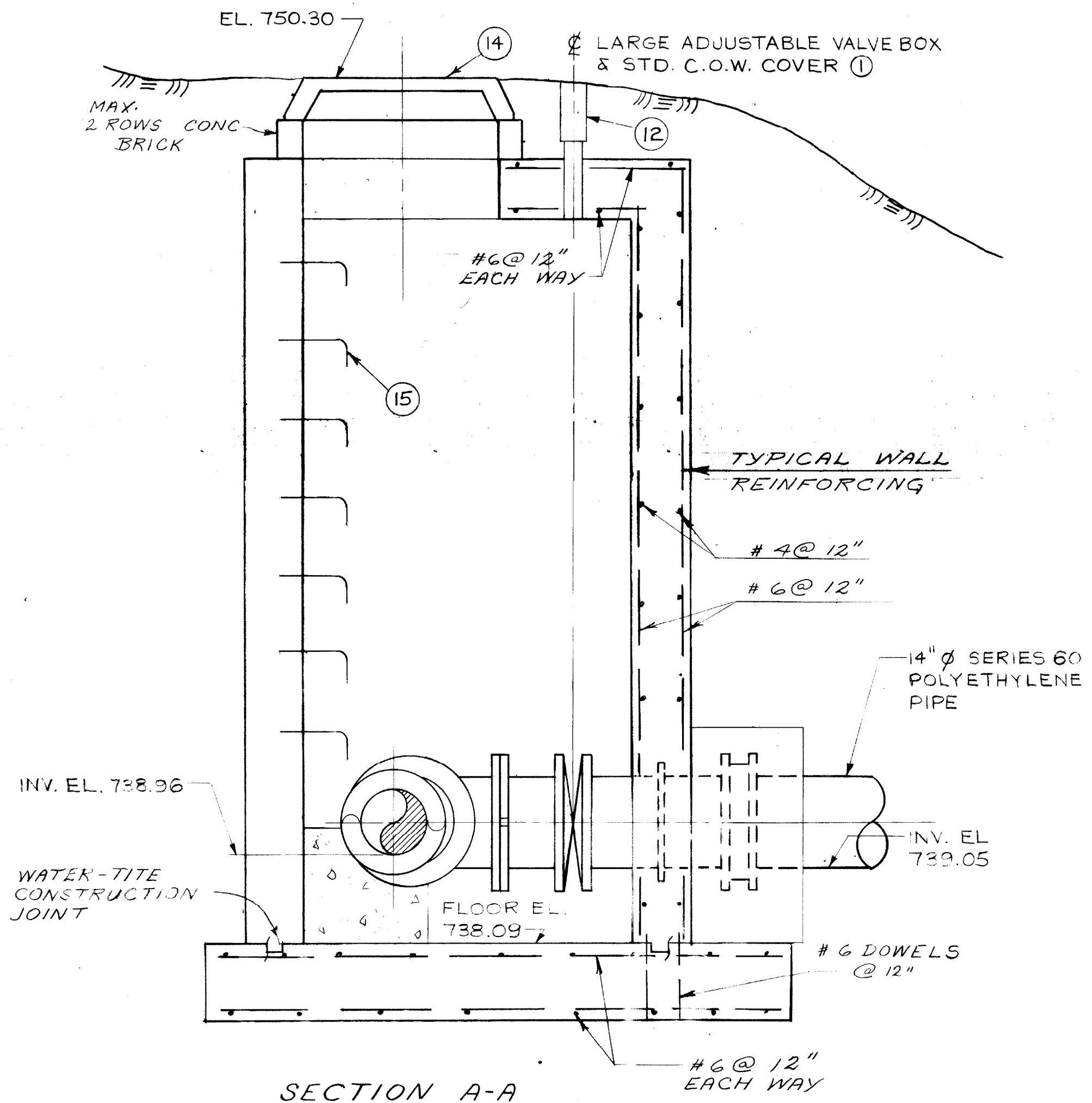
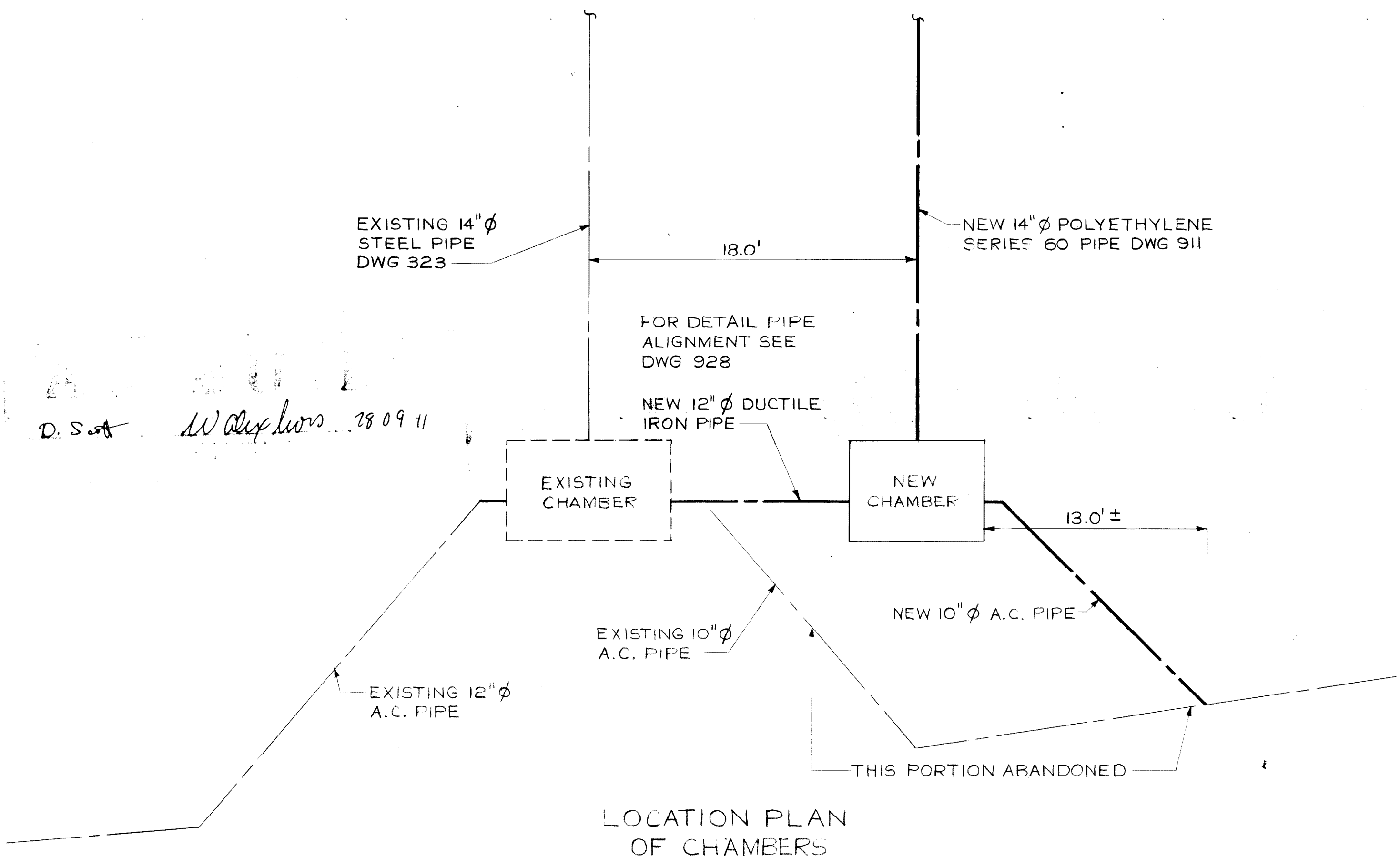




LIST OF MATERIAL

Item	Description	Length	Quantity
1	14"x12" Eccentric reducer flg. to vict.	1'-4"	1
2	12" wall piece c/w conc. ring flg to vict.	2'-9"	1
3	12" wall piece c/w conc. ring bell to vict	2'-6"	1
4	14"x14" Tee vict to vict to vict	2'-4"	2
5	14" Short pipe vict to flg.	0'-9 1/2"	2
6	14" Dezurik knife gate valve	0'-3"	2
7	14"x12" Concentric reducer flg. to vict.	1'-4"	2
8	12" Wall piece c/w conc. ring bell to vict.	1'-6"	1
9	14"x10" Eccentric reducer flg. to vict.	1'-4"	1
10	10" Wall piece c/w conc. ring flg. to vict.	1'-6"	1
11	14" Wall piece c/w conc. ring flg. to flg.	1'-11"	1
12	Valve box	-	2
13	Paired in place concrete saddle	-	2
14	Standard City of Wpg M.H. frame and cover	-	1
15	Standard City of Wpg M.H. steps	-	-
16	14" Adapter flange vict style 341	-	2
17	12" Adapter flange vict style 341	-	3
18	10" Adapter flange vict style 341	-	1
19	12" Robar coupling Style B7-B7	-	1

NOTE:
1. ALL PIPE AND FITTINGS IN EXISTING AND NEW CHAMBERS ARE CAST IRON.



NO.	DESCRIPTION	DATE	BY
⑥	ADDED NOTE	JAN 92	EN
⑦	REVISED TO AS BUILT	AUG 18 78	BT
⑧	NOTE ADDED - VICT. ADAPTER FLG	DEC 7 78	V.D.
⑨	DIMENSIONS CHANGED PROPOSED PIT	OCT 17 78	V.D.
④	SERIES 80 CHANGED TO 60	OCT 17 78	B.B.
③	ITEMS 9, 11, 12, CHANGED	OCT 17 78	LD
②	STYLE 77 CHANGED TO STYLE 31	OCT 17 78	LD
①	LARGE ADJ. VALVE BOXES ADDED	OCT 17 78	V.D.

REVISIONS

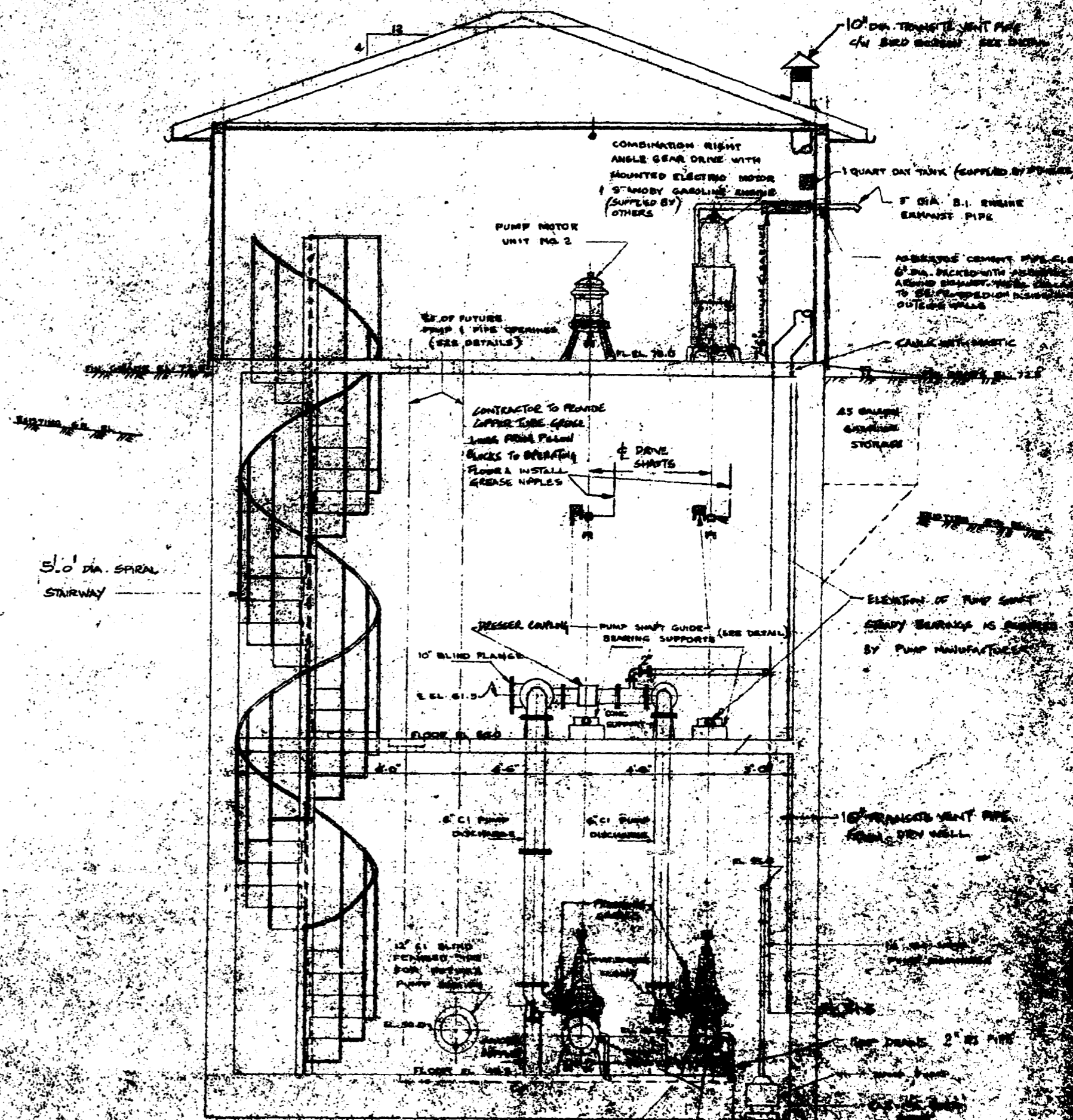
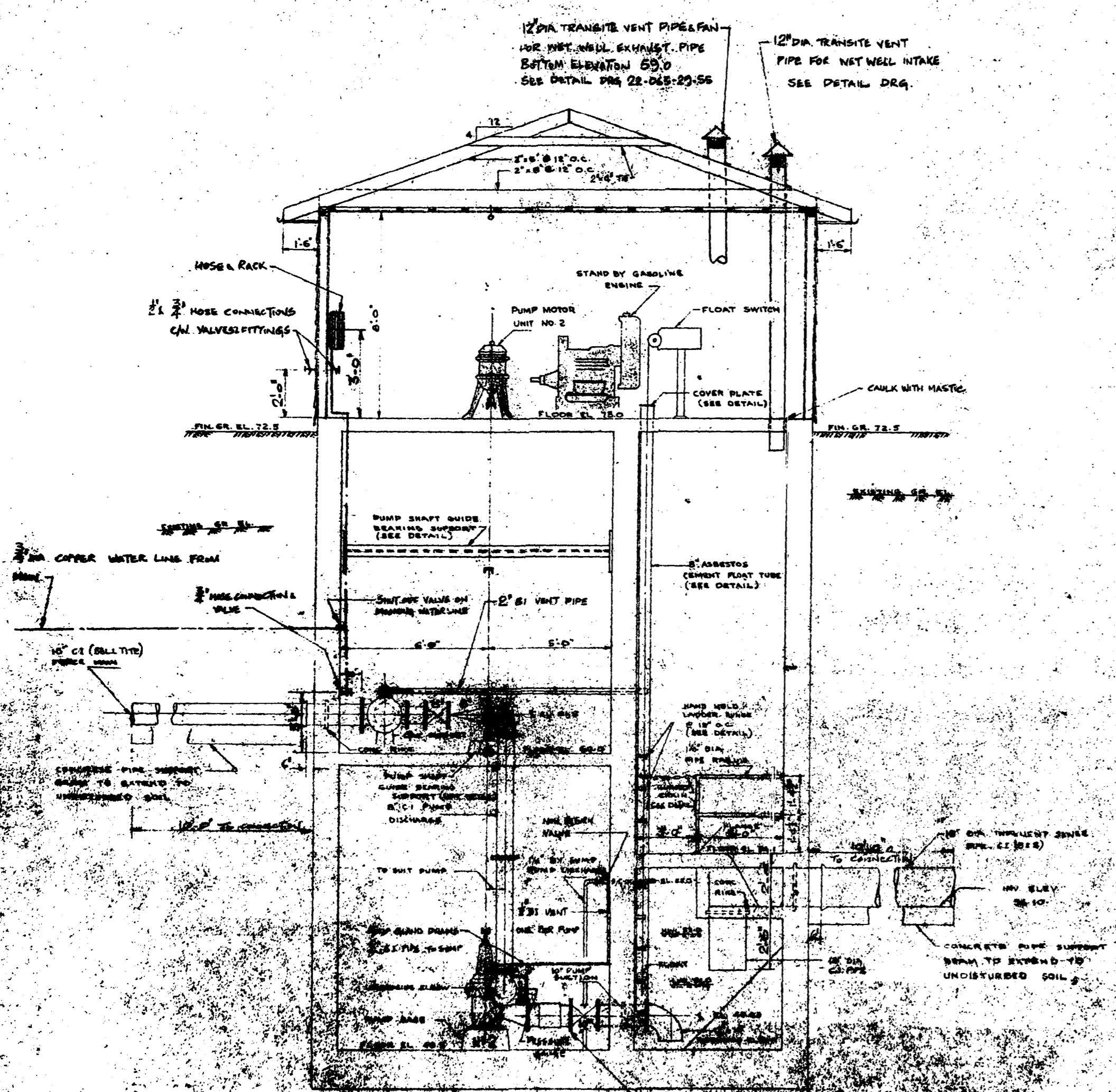
The City of Winnipeg
Waterworks, Waste and Disposal Division

ENGINEERING BRANCH
WASTE DISPOSAL

NEWTON RIVER X-ING
VALVE CHAMBER
DETAILS

DESIGNED BY B. BRICK	DRAWN BY V. DUMORE
CHECKED BY [Signature]	DATE JUNE 1977
APPROVED BY [Signature]	
SCALE 3/4" = 1'-0" OR AS NOTED	DRAWING NO. 913

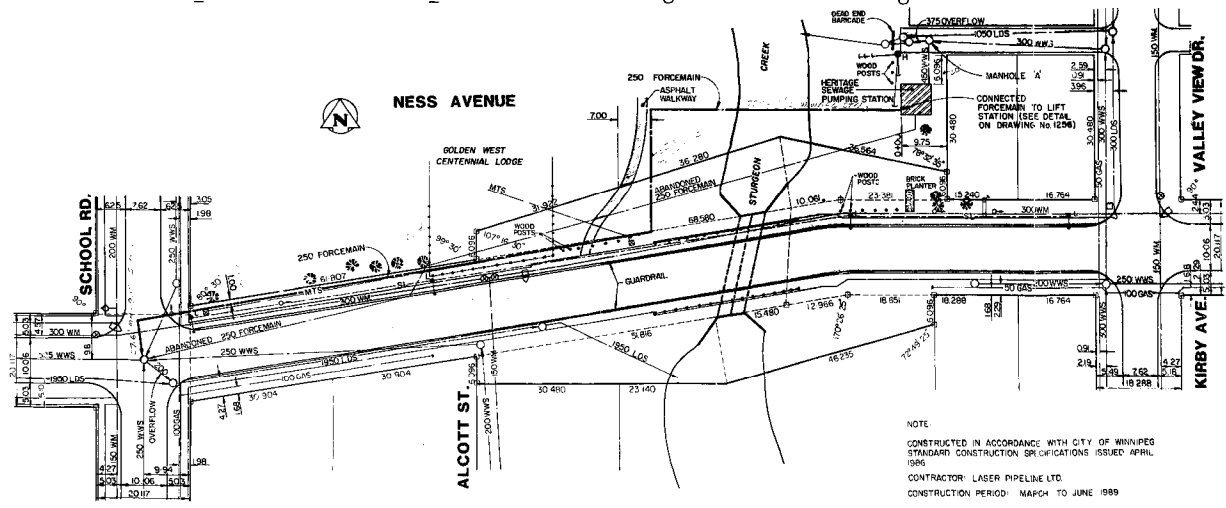
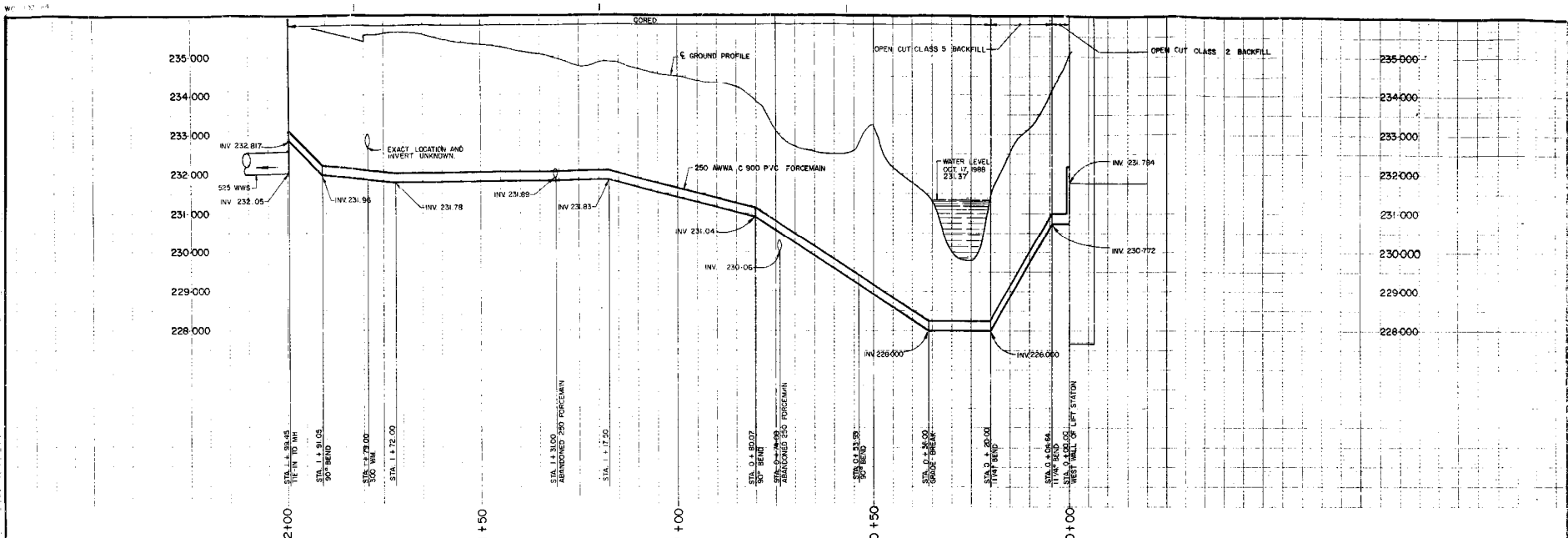
file # IN10473



RESTRICTION TO DISBURSA
SCALE 1/4" = 1'-0"



GENERALITY OF ASSURANCE	
NORRIS ENGINE COMPANY	
PUMPS & EQUIPMENT NO. 1	
DATE	1954
BY	A.B. [Signature]
CHECKED BY	[Signature]
APPROVED BY	[Signature]
PROJECT NO.	
CLIENT	U.S. AIR FORCE
LOCATION	GUAM
DESCRIPTION	PUMP HOUSE



NOTE
 CONSTRUCTED IN ACCORDANCE WITH CITY OF WINNIPEG
 STANDARD CONSTRUCTION SPECIFICATIONS ISSUED APRIL
 1986
 CONTRACTOR: LASER PIPELINE LTD.
 CONSTRUCTION PERIOD: MARCH TO JUNE 1989

AS CONSTRUCTED
 S.M. Miller, 11/21/89, Dec 1989

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING

LOCATION APPROVED UNDERGROUND STRUCTURES
 40-048
 230-588
 NOTE: THIS IS A PRELIMINARY PLAN AND IS SUBJECT TO CHANGE. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.

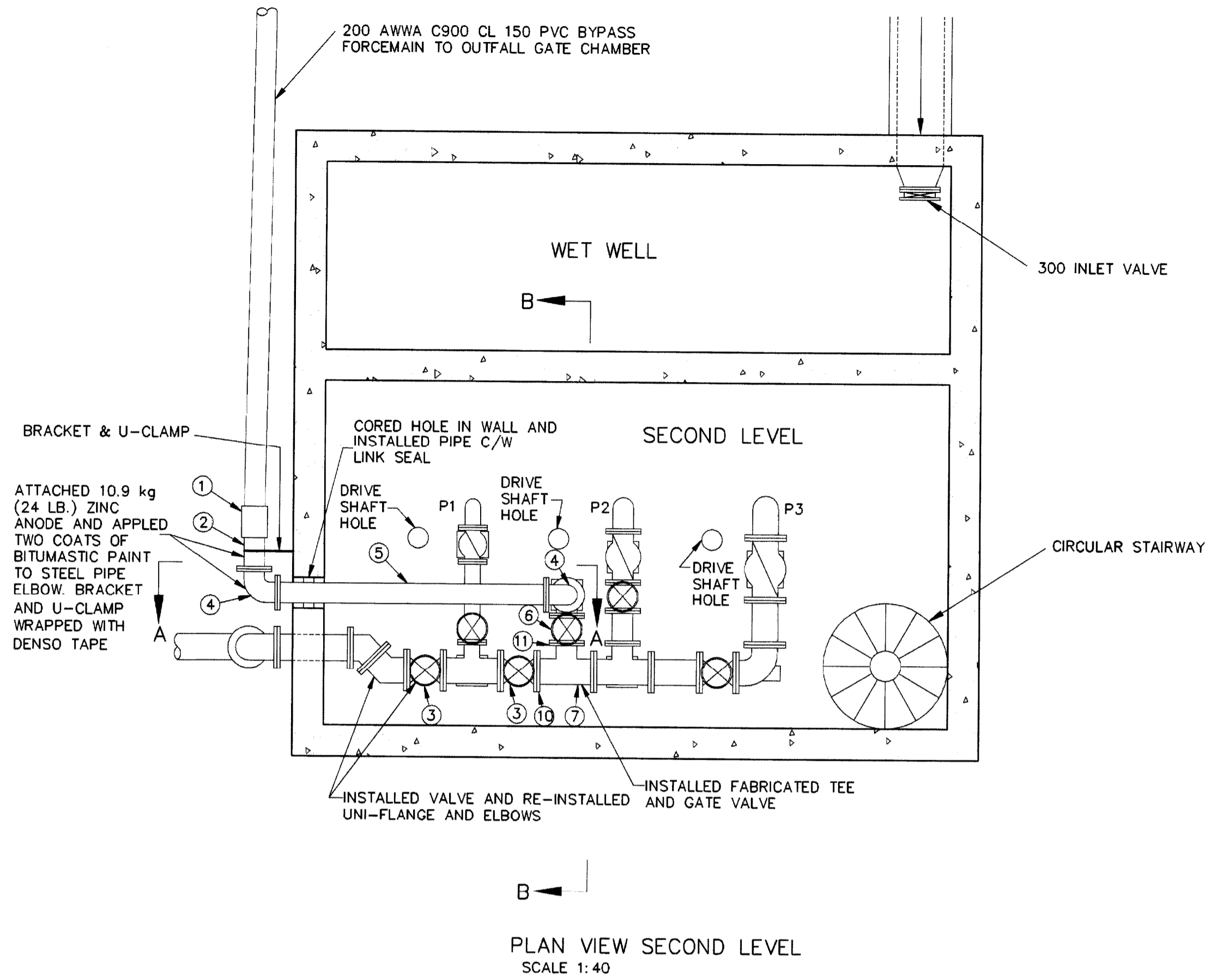
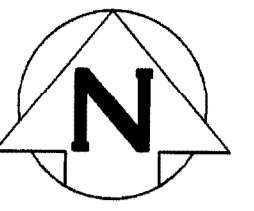
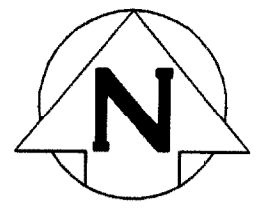
DESIGNED BY	TJW	CHECKED BY	RAS
DRAWN BY	TM	APPROVED BY	
DATE	OCTOBER 1988	DATE	



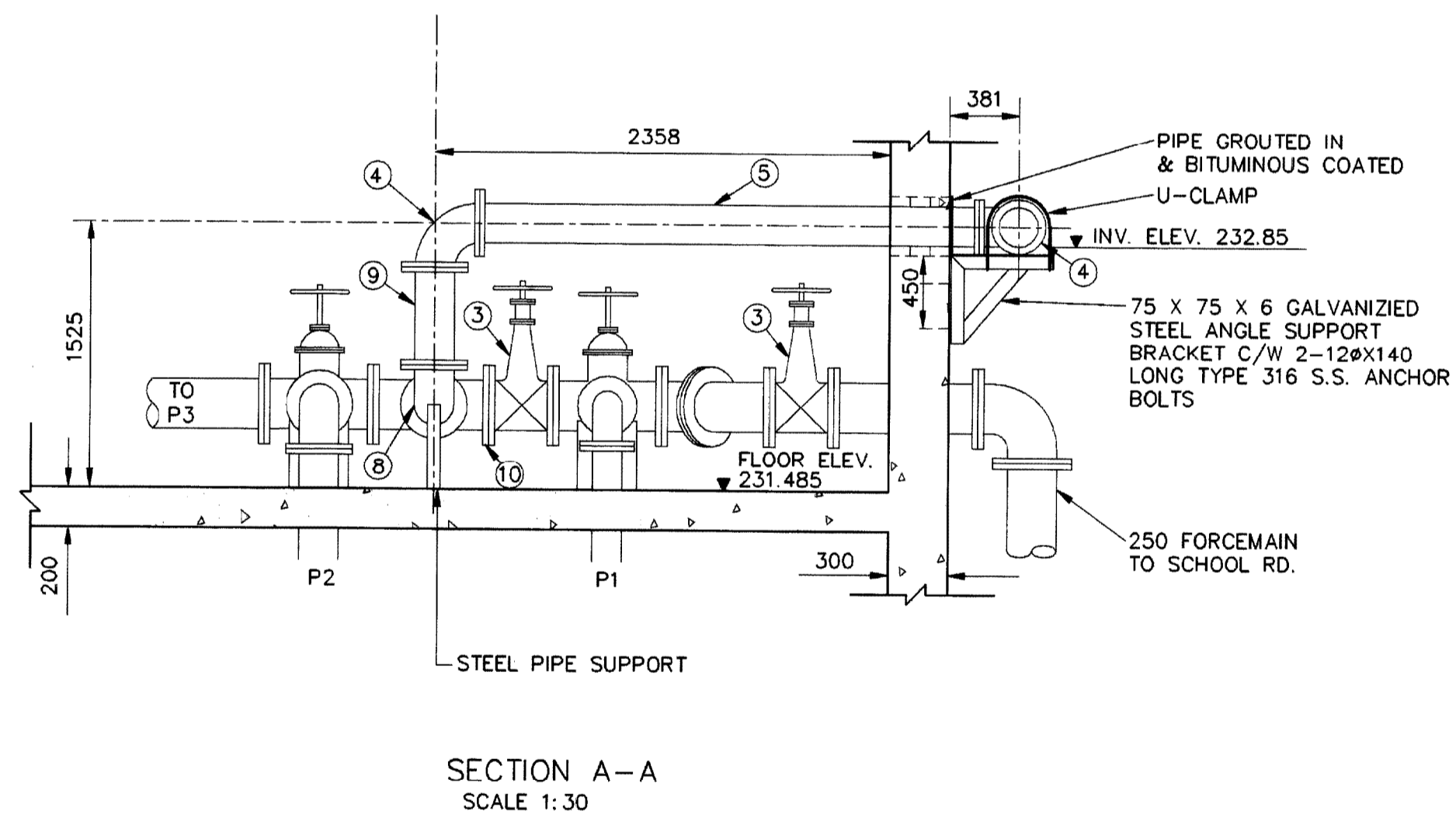
THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION

HERITAGE LIFT STATION
FORCEMAIN RENEWAL

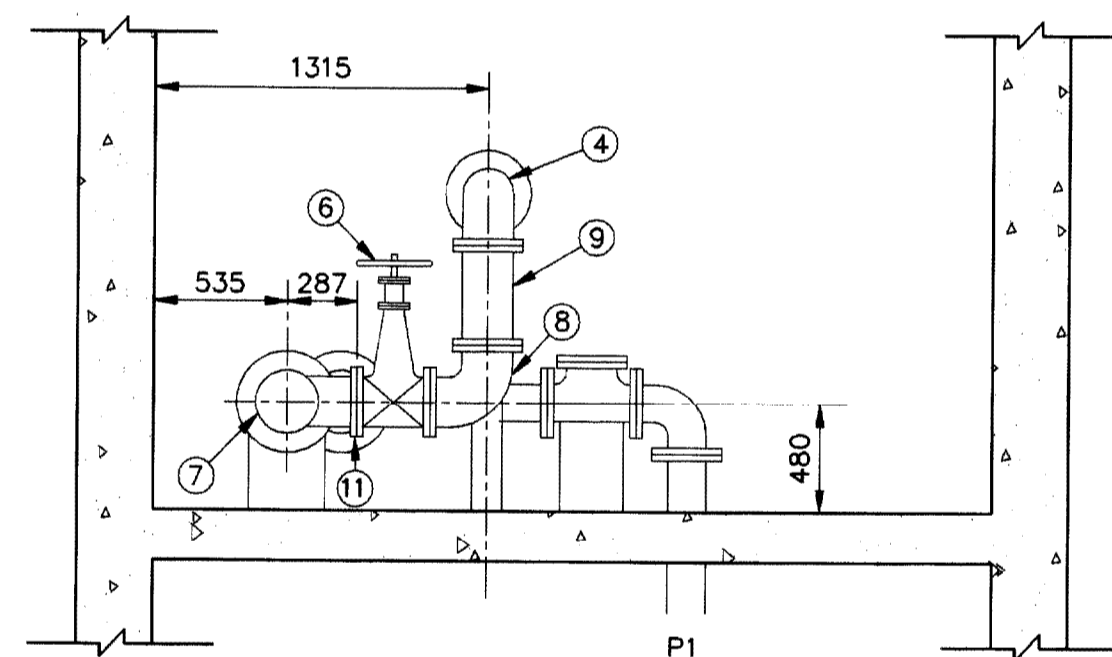
CITY DRAWING NUMBER: SHEET 1 OF 2
 1255



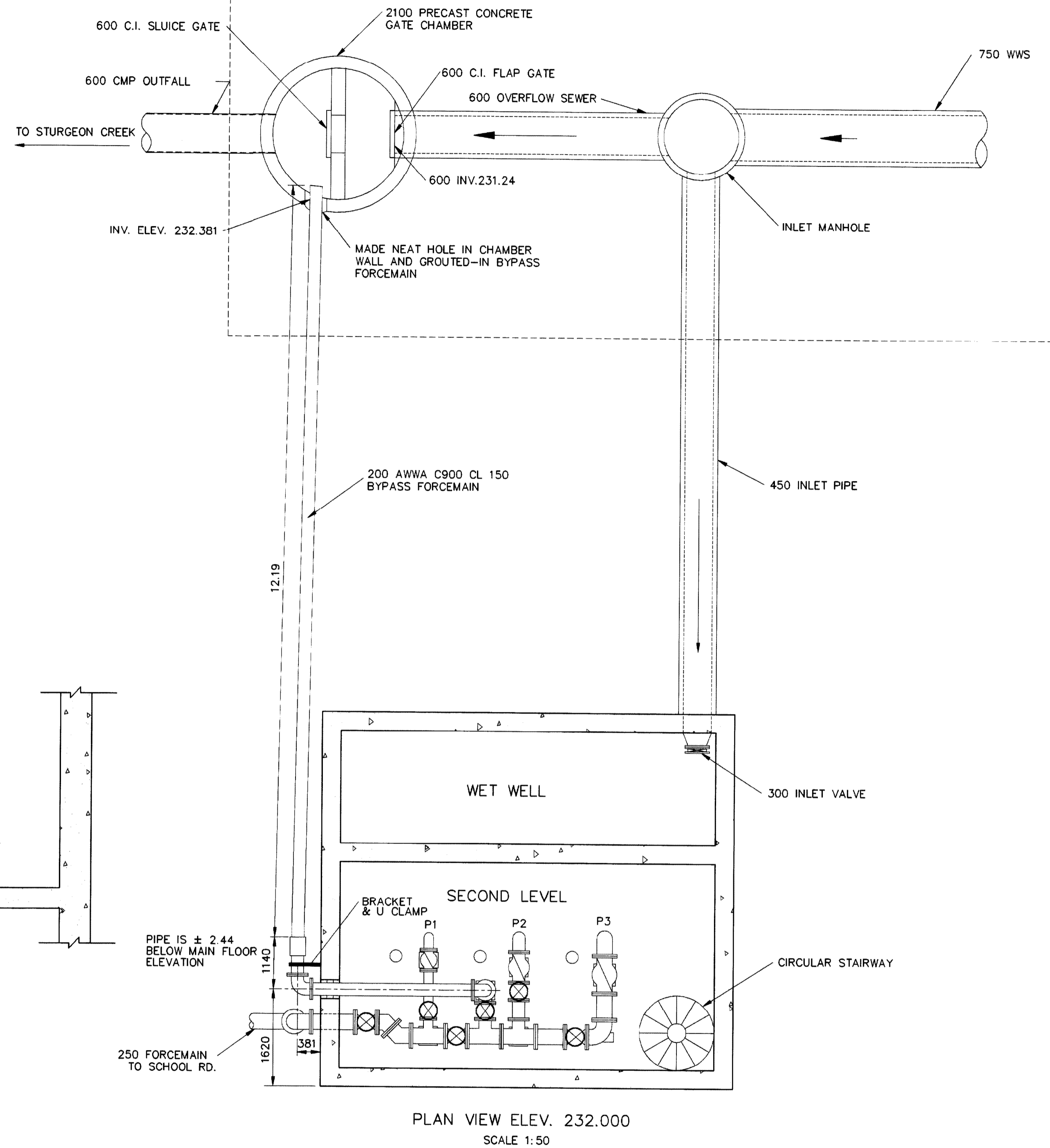
PLAN VIEW SECOND LEVEL
SCALE 1:40



SECTION A-A
SCALE 1:30



SECTION B-B
SCALE 1:30



PLAN VIEW ELEV. 232.000
SCALE 1:50


LIST OF MATERIALS

ITEM	DESCRIPTION	ENDS	LENGTH	QUANTITY
1	200 PIPE COUPLING	-	-	1
2	200 FILLER PIPE	PE x FLANGED	800 ±	1
3	250 GATE VALVE (RISING STEM)	FLANGED	330	2
4	200 90° ELBOW	FLANGED	230 Q TO FACE	2
5	200 FILLER PIPE	FLANGED	2586	1
6	200 GATE VALVE (RISING STEM)	FLANGED	292 (1
7	250 x 250 x 200 REDUCING TEE (FABRICATED)	FL x PE x PE	-	1
8	200 90° BASE ELBOW	FLANGED	230 Q TO FACE	1
9	200 FILLER PIPE	FLANGED	580	1
10	250 SERIES 200-S UNI-FLANGE OR APPROVED EQUAL	-	-	1
11	200 SERIES 200-S UNI-FLANGE OR APPROVED EQUAL	-	-	1

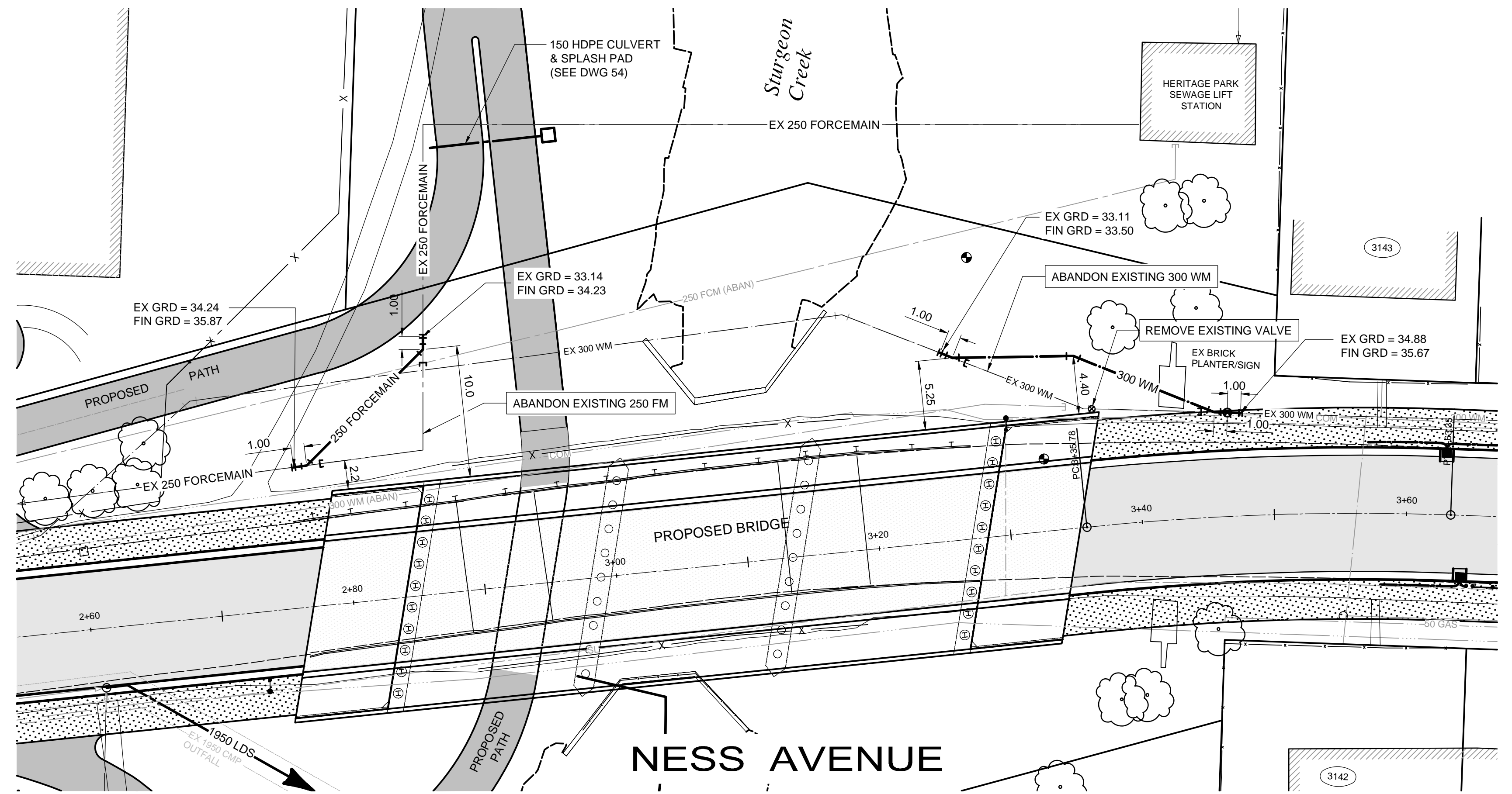
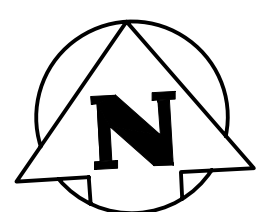
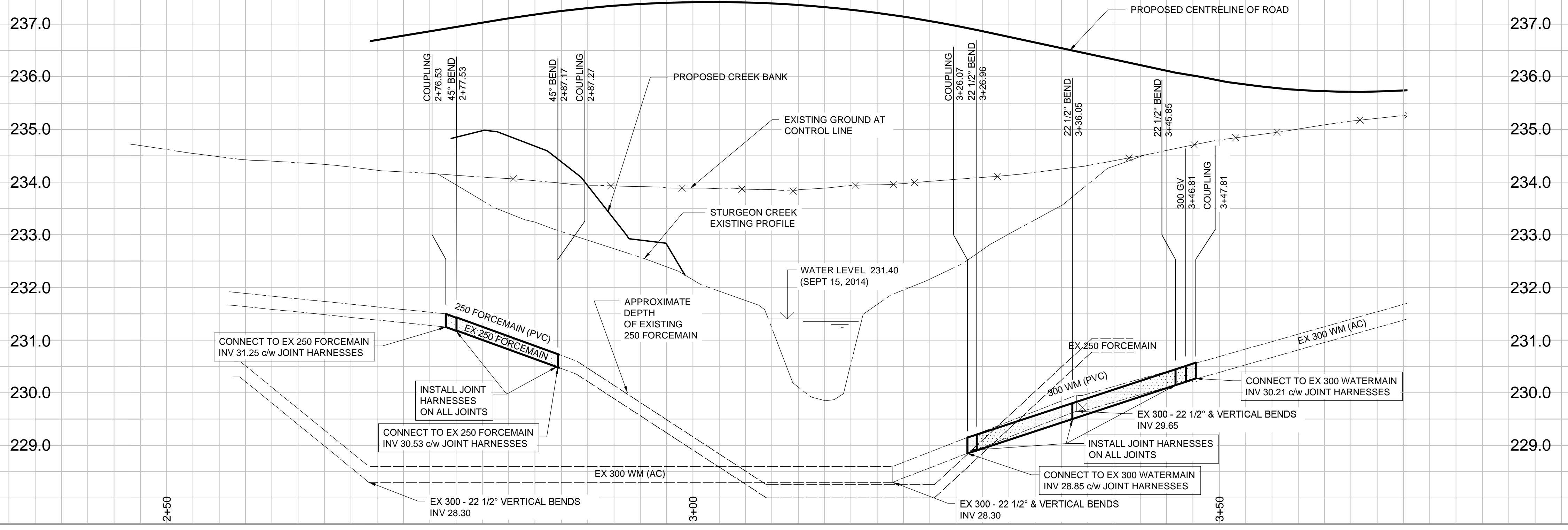
NOTES

- LENGTHS SHOWN FOR PIPING ARE FACE TO FACE DIMENSIONS AND DO NOT INCLUDE GASKET THICKNESS
- GASKETS ARE BE 3 mm THICK, FULL FACED, CLOTH INSERTED RUBBER.
- ALL INTERIOR NUTS AND BOLTS ARE CARBON STEEL
- PIPE IS SCHEDULE 40 STEEL
- FLANGED FITTINGS CONFORM TO AWWA C110
- FLANGES WELDED INSIDE AND OUT IN ACCORDANCE WITH AWWA C 207
- ANCHOR BOLTS ARE TYPE 316 SS KWIK BOLT STUD ANCHORS

NB: INSTALLATION COMPLETED ON JULY 11, 1995

B.M. ELEV.	DESIGNED BY T.W.		CHECKED BY T.W.		ENGINEER'S SEAL	 THE CITY OF WINNIPEG WORKS AND OPERATIONS DIVISION WATERWORKS WASTE AND DISPOSAL DEPARTMENT	HERITAGE WASTEWATER PUMPING STATION BYPASS FORCEMAIN	SHEET OF
	DRAWN BY M.B.D.		APPROVED BY					
	HOR. SCALE AS NOTED		RELEASED FOR CONSTRUCTION					
	VERTICAL AS NOTED		DATE					
AS CONSTRUCTED		09-95	M.B.D.	DATE JUNE 15, 1995		PLOT DATE: SEPTEMBER 19, 1995		PLAN AND SECTION VIEWS
NO. REVISIONS		DATE	BY	DATE		INSPECTION / SURVEY / TECHNICAL SERVICES <i>K. Dalton</i> 95.10.30 DATE WATERWORKS, WASTE & DISPOSAL DEPARTMENT		CITY DRAWING NUMBER
								1446

1446



- CONSTRUCTION NOTES:**
1. LOCATION OF ALL SEWER AND WATER LINES TO BE CONFIRMED IN THE FIELD.
 2. SEWER AND WATER SERVICES SHOWN ON DRAWINGS ARE APPROXIMATE ONLY.
 3. ALL FITTINGS ON WATERMANS AND FORCEMANS REQUIRE RESTRAINING DEVICES.
- GENERAL NOTES:**
1. CHAINAGE IS ALONG CONTROL LINE OF NESS AVENUE.
 2. SEE SPECIFICATIONS FOR DETAILED TEST HOLE INFORMATION.



150 WM	WATERMAIN	150 WM	→	SWALE	→	RIGHT-OF-WAY	
400 FM	FEEDERMAIN	400 FM	○	MANHOLE	●	GAS	
300 LDS	LAND DRAINAGE SEWER	300 LDS	□	CATCHBASIN	■	HYDRO	
250 WWS	WASTEWATER SEWER	250 WWS	▣	HYDRO BOX		MTS	
300 CS	COMBINED SEWER	300 CS	●	HYDRO POLE		DETECTABLE WARNING TILE	□
200 FCM	FORCEMAIN	200 FCM	●	LIGHT STANDARD	●	ELEVATION	(32.123)
	JUNCTIONS		+	ANCHOR	⊖	SIDEWALK	▨
	HYDRANT		⊕	TREE	⊕	CURB	▨
	VALVE		⊕	SURVEY BAR	⊕	ASPHALT	▨
	CURB STOP		⊕	SIGNAL CONTROLLER	⊕	CONCRETE	▨
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES DATE COMMITTEE

NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

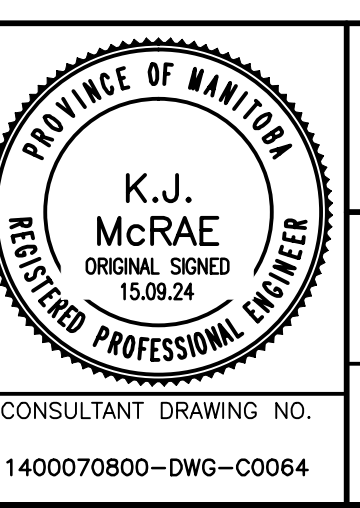
B.M. ELEV.	
NO.	REVISIONS

TETRA TECH

DESIGNED BY: GWC
 CHECKED BY: KJM
 DRAWN BY: GMD
 APPROVED BY: EFS

HOR. SCALE: 1 : 250
 VERTICAL: 1 : 50

0 ISSUED FOR TENDER 15.09.24 KJM
 NO. REVISIONS DATE BY



THE CITY OF WINNIPEG
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION

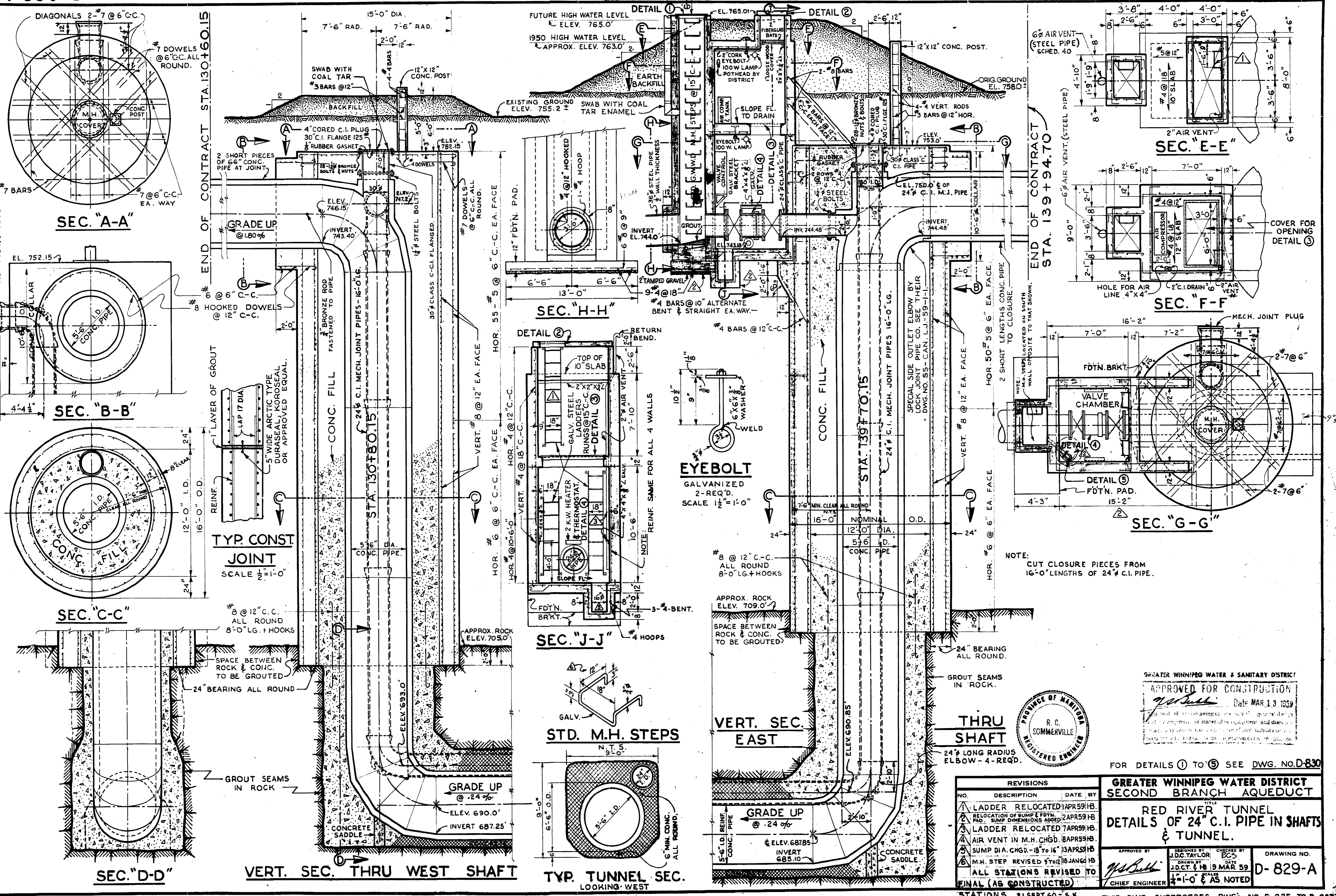
NESS AVENUE AT STURGEON CREEK BRIDGE CONSTRUCTION

CITY DRAWING NUMBER: P-3465-15-017
 SHEET 64 OF 64

300 WATERMAIN & 250 FORCEMAIN RELOCATION ON NESS AVENUE

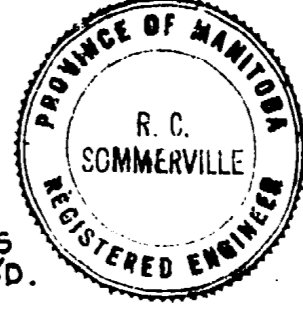
64

6" STEEL AIR VENT LAGGED TO M.H. SCHED. 40



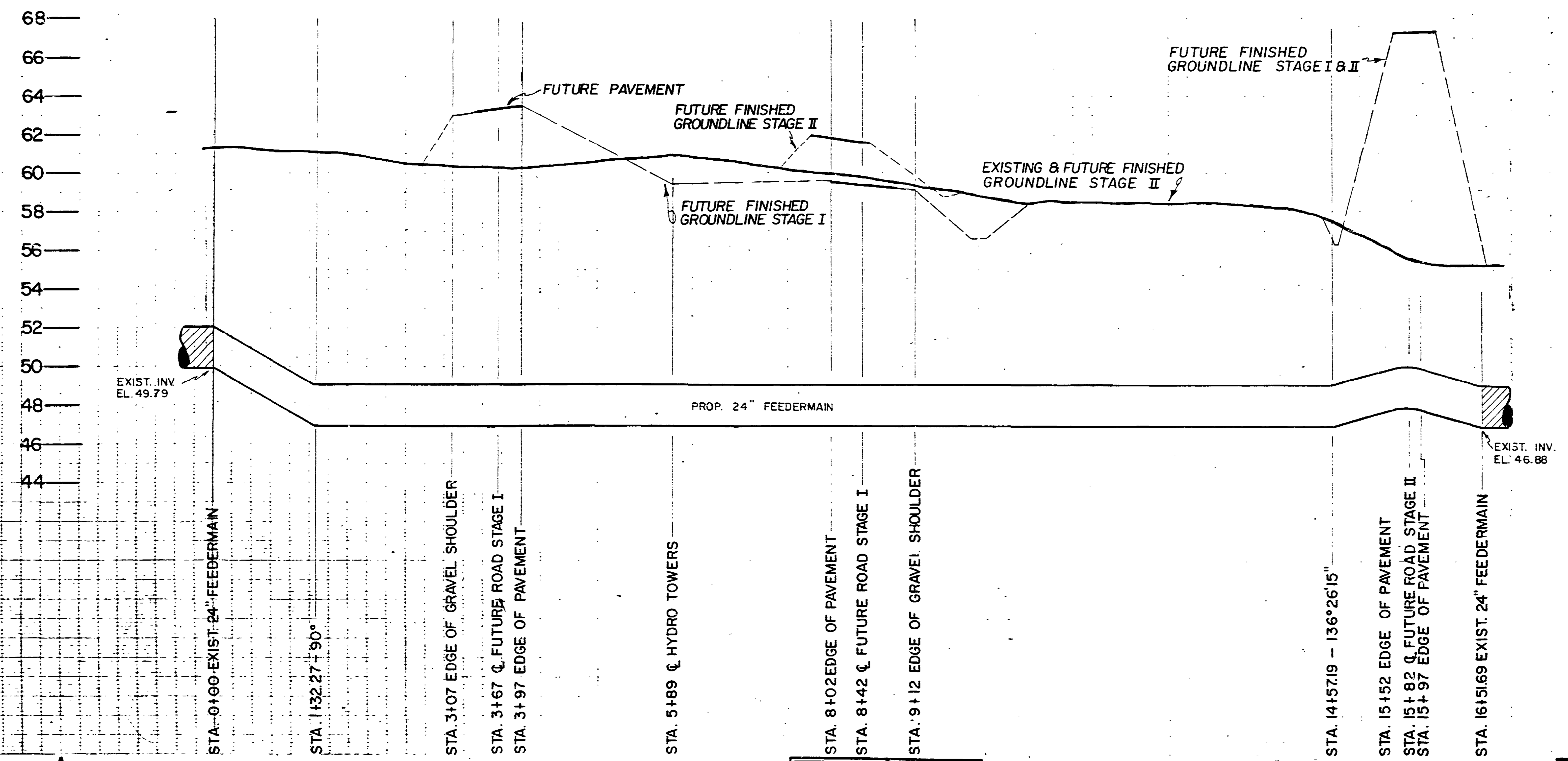
REVISIONS		
NO.	DESCRIPTION	DATE BY
1	LADDER RELOCATED	1 APR 59 HB
2	RELOCATION OF SUMP & FDTN. PAD. SUMP DIMENSIONS ADDED	2 APR 59 HB
3	LADDER RELOCATED	7 APR 59 HB
4	AIR VENT IN M.H. CHGD.	8 APR 59 HB
5	SUMP DIA. CHGD. - 18" TO 16"	13 APR 59 HB
6	M.H. STEP REVISED	5 JUN 59 HB
ALL STATIONS REVISED TO FINAL (AS CONSTRUCTED)		

GREATER WINNIPEG WATER & SANITARY DISTRICT
APPROVED FOR CONSTRUCTION
 Date MAR 13 1959
**GREATER WINNIPEG WATER DISTRICT
 SECOND BRANCH AQUEDUCT**
**RED RIVER TUNNEL
 DETAILS OF 24" C.I. PIPE IN SHAFTS
 & TUNNEL.**
 APPROVED BY: *J.D.C.*
 DRAWN BY: J.D.C. & H.B.
 DATE: 9 MAR 59
 SCALE: 1"=1'-0" & AS NOTED
 DRAWING NO. **D-829-A**



FOR DETAILS ① TO ⑤ SEE DWG. NO. D-830

THE CITY OF WINNIPEG
WATERWORKS WASTE & DISPOSAL DIVISION
APPROVED FOR CONSTRUCTION
[Signature] DATE: APR 19 1977
Approval of this drawing leaves only the general nature and arrangement of the work to be done and does not in any way relieve the Contractor of any liability or responsibility for the satisfactory operation of the installation.



PROFILE
HORIZ. SCALE: 1" = 100'
VERT. SCALE: 1" = 4'

NOTE:
FUTURE PAVING STAGE I
FUTURE PAVING STAGE II
FUTURE HYDRO TOWERS

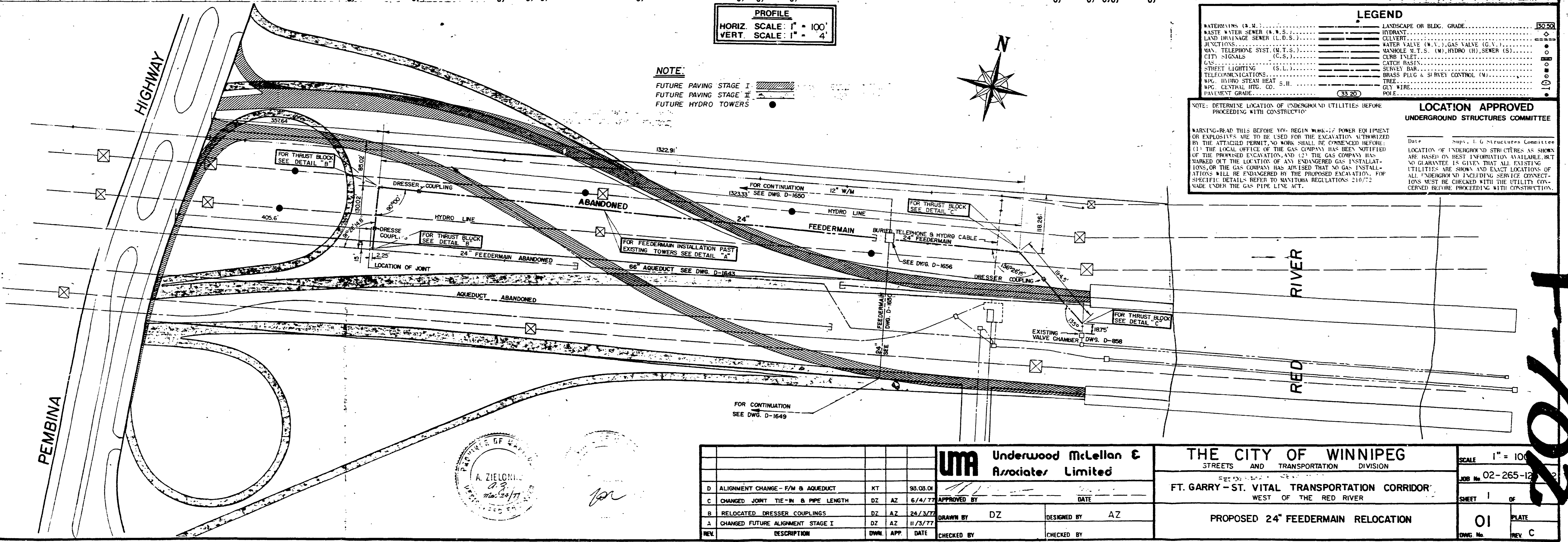
NOTE:
SEE MANUF. DWG. FILE F-702
FOR PIPE LAYING SCHEDULE.

LEGEND	
WATERMANS (R.M.)	LANDSCAPE OR BLDG. GRADE
WASTE WATER SEWER (W.S.)	HYDRANT
LAND IRRIGATION SEWER (L.I.S.)	CULVERT
JUNCTIONS	WATER VALVE (W.V.), GAS VALVE (G.V.)
MAN. TELEPHONE SIST. (M.T.S.)	MANHOLE M.T.S. (M), HYDRO (H), SEWER (S)
CLIP SIGNALS (C.S.)	CLUB INLET
GAS	CATCH BASIN
STREET LIGHTING (S.L.)	SURVEY BAR
TELECOMMUNICATIONS	BRASS PLUG & SURVEY CONTROL (M)
W.P. HYDRO STEAM HEAT S.H.	TREE
W.P. CENTRAL HTG. CO.	OUT WIRE
PAVEMENT GRADE	POLE

NOTE: DETERMINE LOCATION OF UNDERGROUND UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

LOCATION APPROVED
UNDERGROUND STRUCTURES COMMITTEE

WARNING-READ THIS BEFORE YOU BEGIN WORK-IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR THE EXCAVATION AUTHORIZED BY THE ATTACHED PERMIT, NO WORK SHALL BE COMMENCED BEFORE: (1) THE LOCAL OFFICE OF THE GAS COMPANY HAS BEEN NOTIFIED OF THE PROPOSED EXCAVATION, AND (2) THE GAS COMPANY HAS MARKED OUT THE LOCATION OF ANY ENDANGERED GAS INSTALLATIONS, OR THE GAS COMPANY HAS ADVISED THAT NO GAS INSTALLATIONS WILL BE ENDANGERED BY THE PROPOSED EXCAVATION. FOR SPECIFIC DETAILS, REFER TO MANITOMA REGULATIONS 210/72 MADE UNDER THE GAS PIPE LINE ACT.



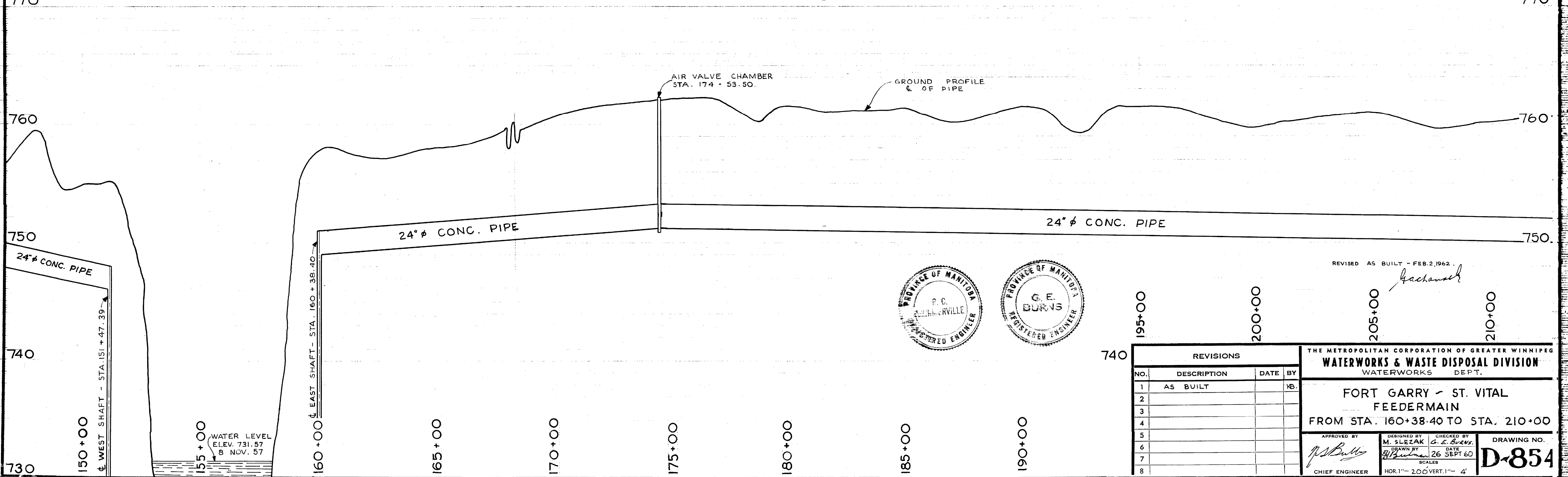
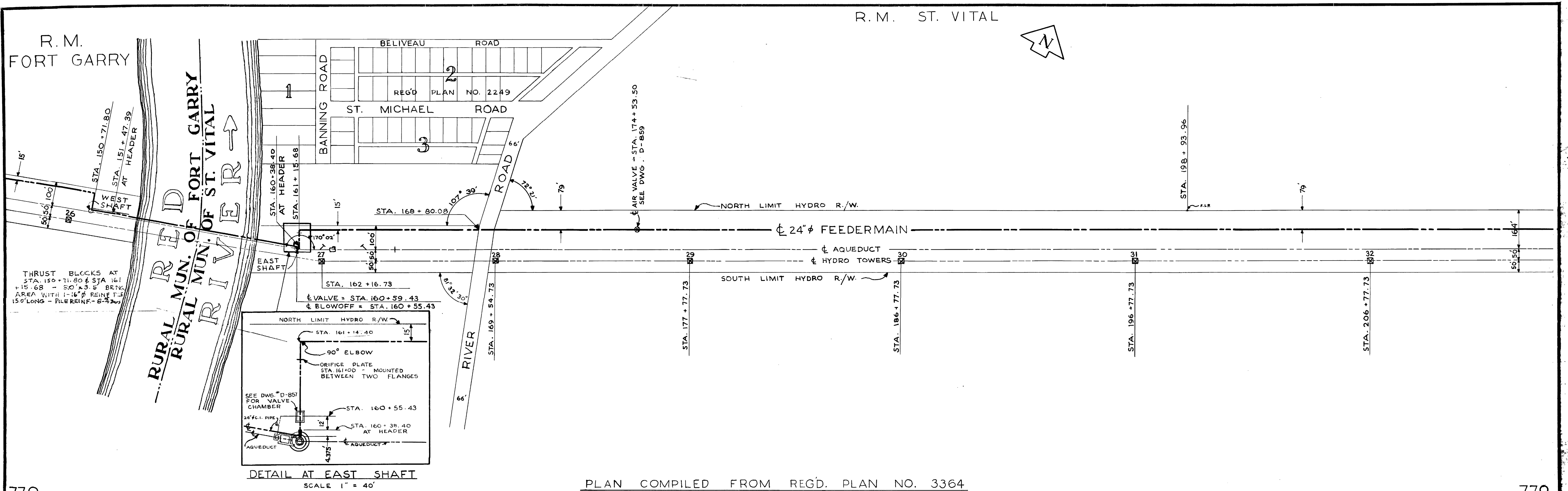
THE CITY OF WINNIPEG
A. ZIELONKA
03
11/23/77

D ALIGNMENT CHANGE - F/M & AQUEDUCT		KT	95.03.01	APPROVED BY		DATE
C CHANGED JOINT TIE-IN & PIPE LENGTH		DZ	6/4/77	DRAWN BY		DESIGNED BY
B RELOCATED DRESSER COUPLINGS		DZ	24/3/77	DZ	AZ	
A CHANGED FUTURE ALIGNMENT STAGE I		DZ	11/3/77	CHECKED BY		CHECKED BY
REV.	DESCRIPTION	DWN.	APP.	DATE	CHECKED BY	CHECKED BY

THE CITY OF WINNIPEG STREETS AND TRANSPORTATION DIVISION		SCALE 1" = 100'
FT. GARRY - ST. VITAL TRANSPORTATION CORRIDOR WEST OF THE RED RIVER		JOB No. 02-265-12
PROPOSED 24" FEEDERMAIN RELOCATION		SHEET 1 OF 1
DWG. No. 01		PLATE
REV. C		

MICROFILMED APR 10 1978 D-853 A

F-702



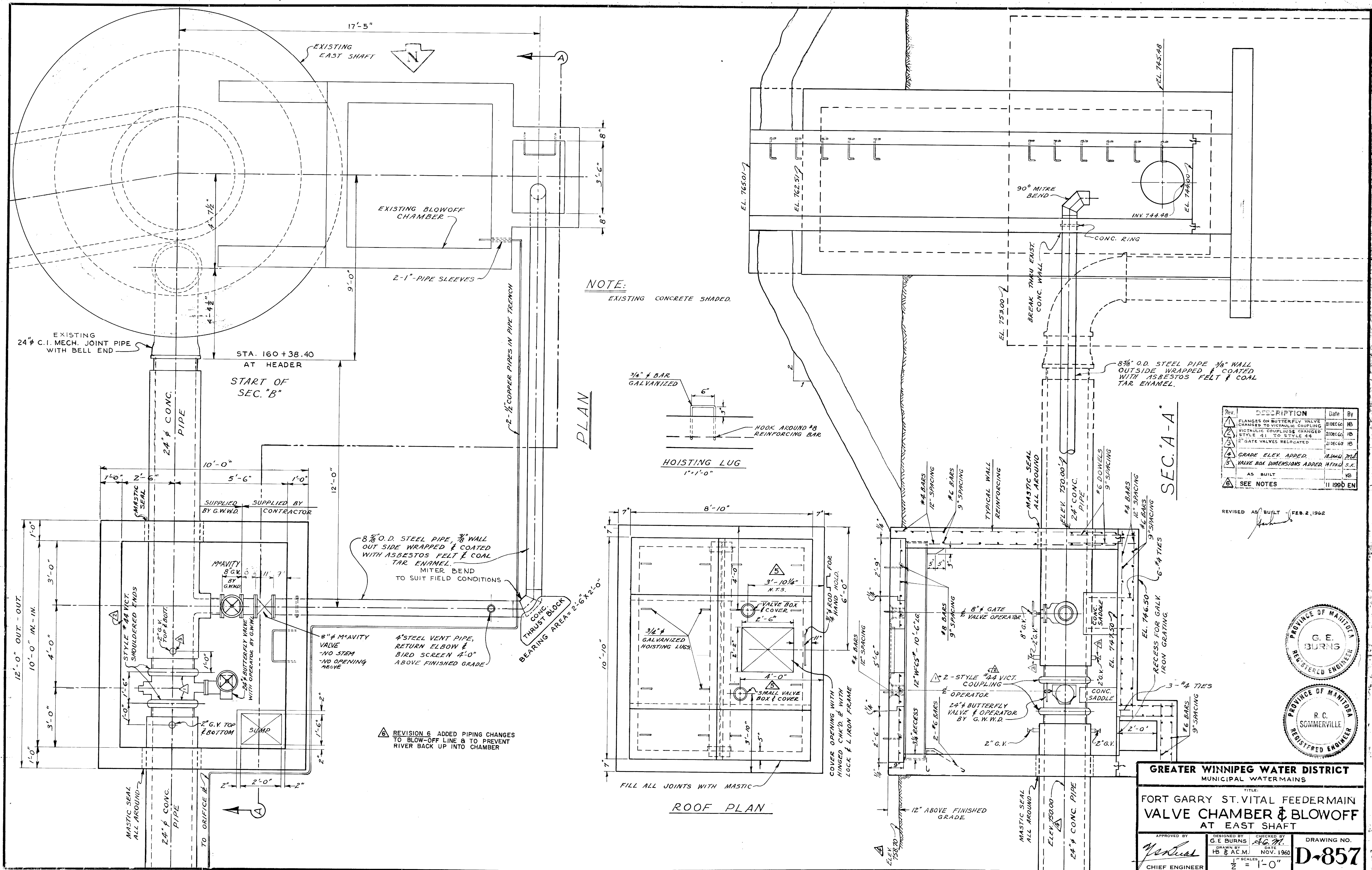
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	AS BUILT		WB.
2			
3			
4			
5			
6			
7			
8			

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG WATERWORKS & WASTE DISPOSAL DIVISION WATERWORKS DEPT.			
FORT GARRY - ST. VITAL FEEDERMAIN FROM STA. 160+38.40 TO STA. 210+00			
APPROVED BY <i>J. S. Bullis</i> CHIEF ENGINEER	DESIGNED BY M. SLEZAK	CHECKED BY G. E. BURNS	DRAWING NO. D-854
DATE 26 SEPT 60		SCALES HOR. 1" = 200' VERT. 1" = 4'	

City of Winnipeg
W0023005

D-0854

Microfilm 1038



NOTE:
EXISTING CONCRETE SHADED.

PLAN

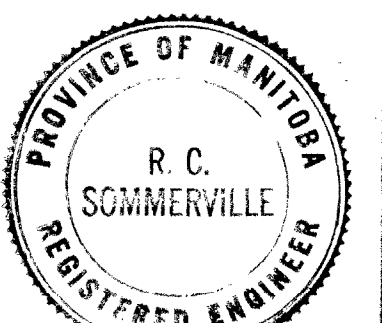
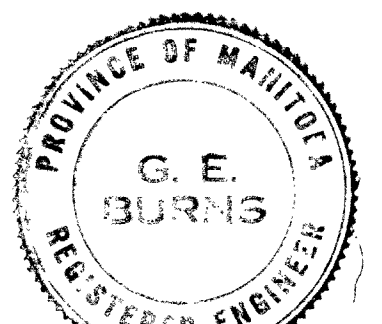
HOISTING LUG
1'-1'-0"

ROOF PLAN

SEC. 'A-A'

Rev.	DESCRIPTION	Date	By
1	FLANGES ON BUTTERFLY VALVE CHANGED TO VICTAULIC COUPLING	21 DEC 66	HB
2	VICTAULIC COUPLINGS CHANGED TO STYLE 41 TO STYLE #8	21 DEC 66	HB
3	2 GATE VALVES RELOCATED	21 DEC 66	HB
4	GRADE ELEV. ADDED	12 JAN 70	HB
5	VALVE BOX DIMENSIONS ADDED (H.F. & S.K.)	11 1990	EN
	AS BUILT		KB
	SEE NOTES		11 1990

REVISED AS BUILT - FEB. 2, 1962

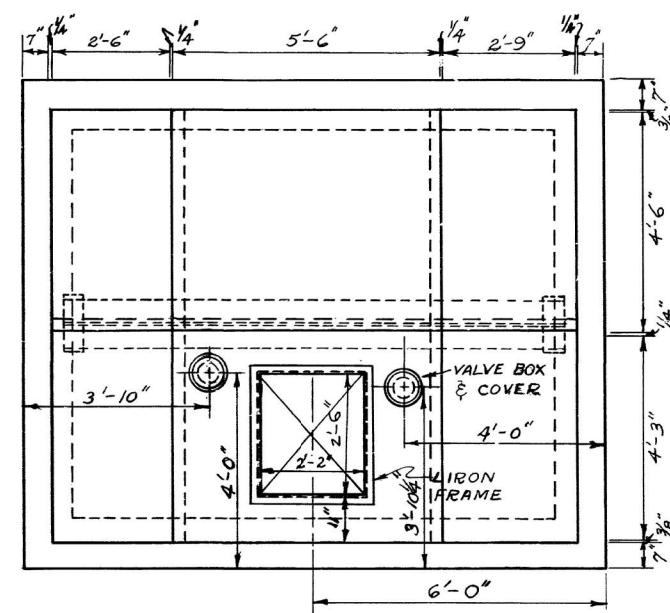
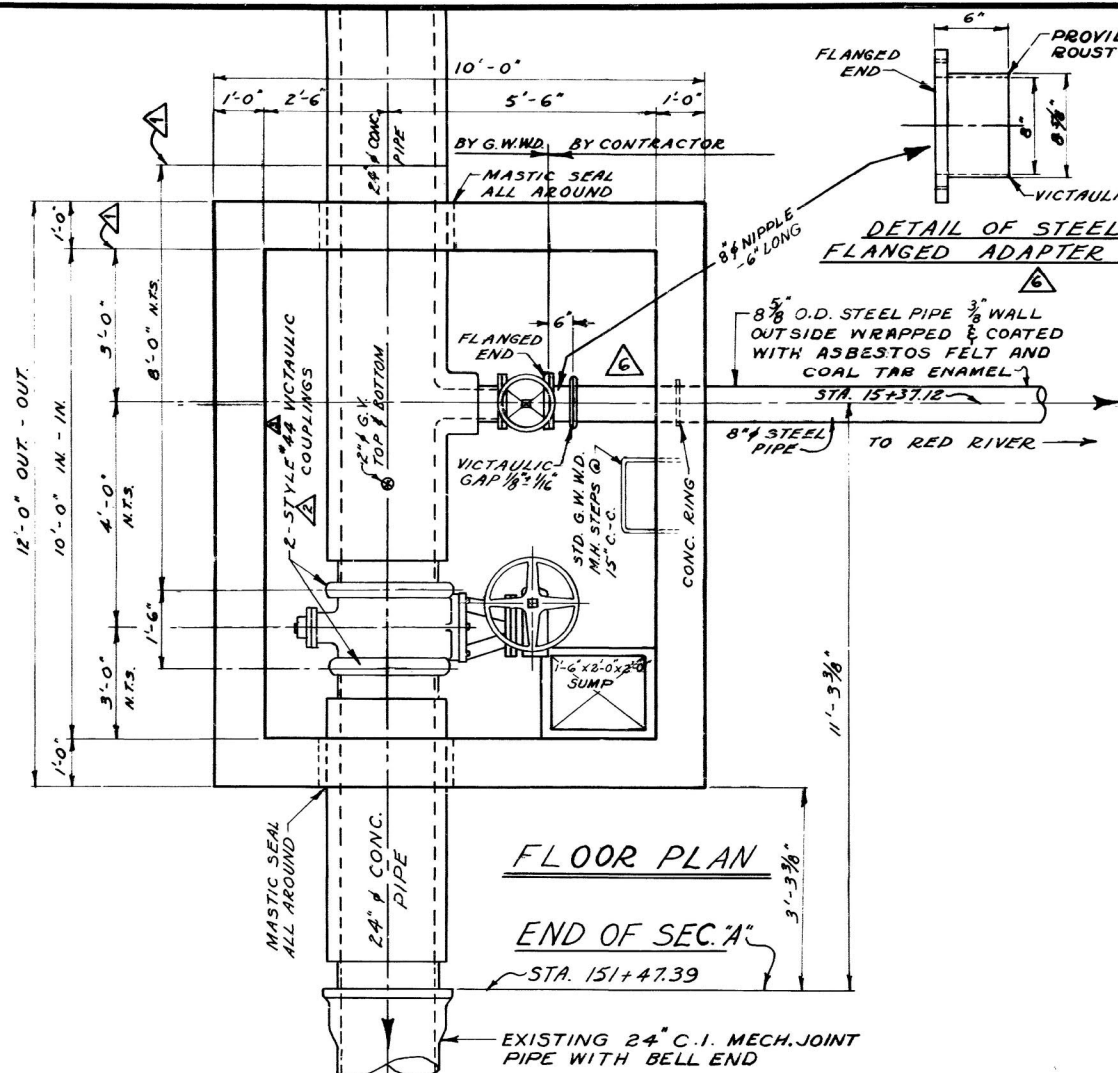


GREATER WINNIPEG WATER DISTRICT
MUNICIPAL WATER MAINS

TITLE:
FORT GARRY ST. VITAL FEEDER MAIN VALVE CHAMBER & BLOWOFF AT EAST SHAFT

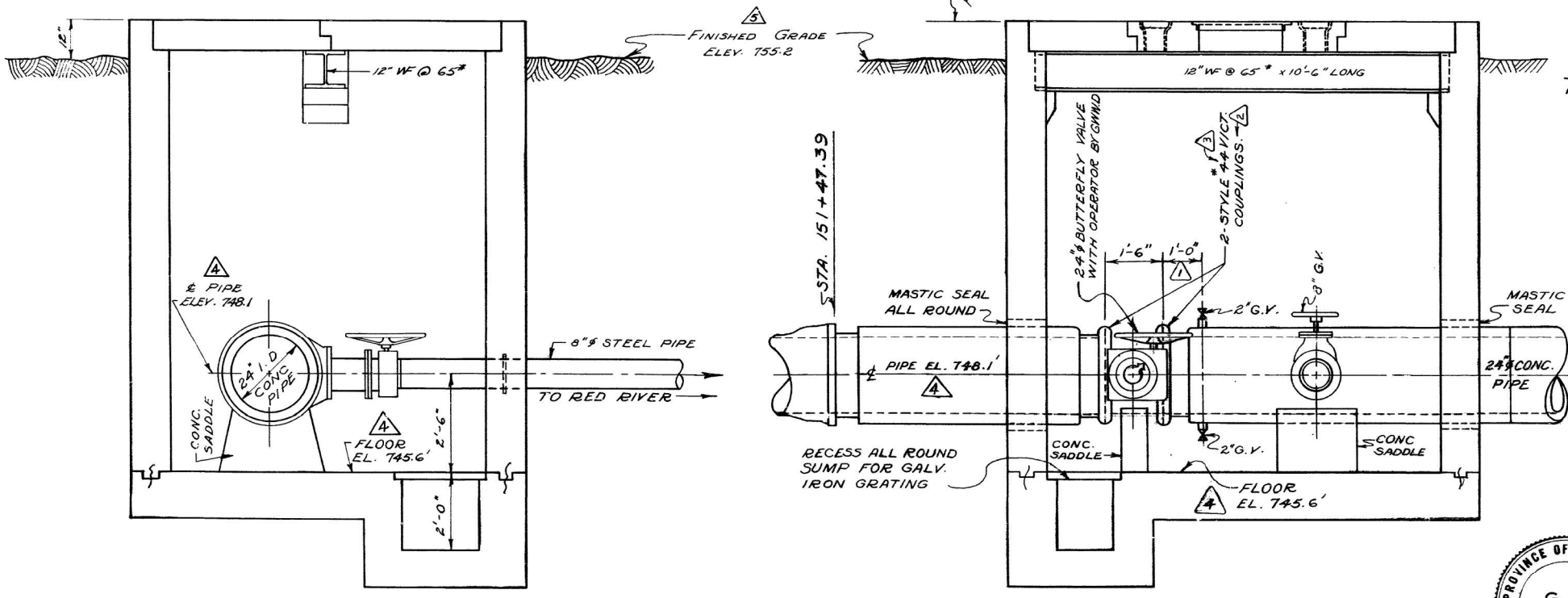
APPROVED BY <i>Y. Schuler</i> CHIEF ENGINEER	DESIGNED BY G. E. BURNS DATE NOV. 1960	CHECKED BY <i>ACM</i> DATE NOV. 1960	DRAWING NO. D-857
--	---	---	-----------------------------

SCALE: 1/2" = 1'-0"



FLOOR PLAN

ROOF PLAN

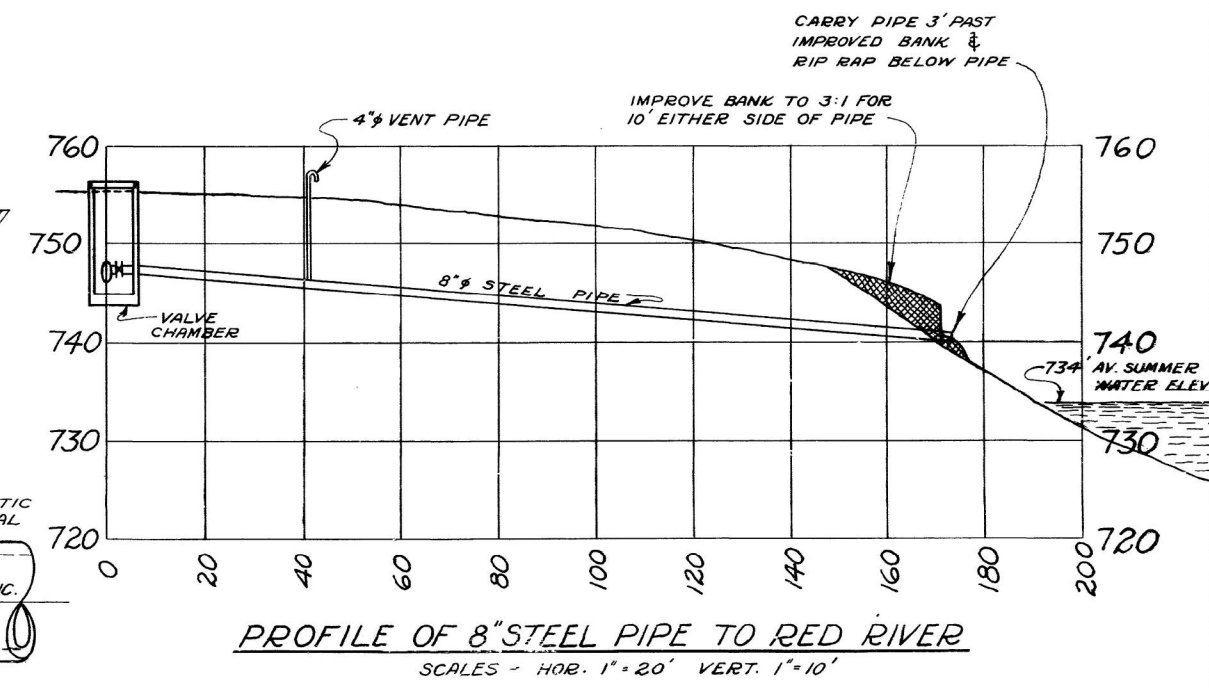


X-SEC.

LONG SEC.

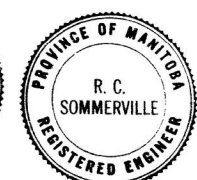
VALVE & BLOWOFF CHAMBER AT WEST SHAFT

NOTE: THIS CHAMBER IS IDENTICAL TO EAST SHAFT CHAMBER, FOR FURTHER DETAILS REFER DWG. NO D-857



PROFILE OF 8" STEEL PIPE TO RED RIVER
SCALE - HOR. 1" = 20' VERT. 1" = 10'

REVISED AS BUILT - FEB. 2, 1962



REVISIONS		
NO.	DESCRIPTION	DATE BY
1	DIMENSIONS ADDED	20 DEC 60 HB
2	FLANGES ON BUTTERFLY VALVE CHANGED TO VICTAULIC	20 DEC 60 HB
3	VICT COUPLING CHGD FROM STYLE #41 TO #4	20 DEC 60 HB
4	PIPE ELEV. AND CHAMBER FLOOR ELEV. REVISED.	18 JAN 61 M.S.
5	GRADE ELEV. ADDED	18 JAN 61 M.S.
6	FLANGED ADAPTER NIPPLE ADAPTD TO WEST SHAFT CHAMBER	25 JAN 61 S.K.
	AS BUILT	KB

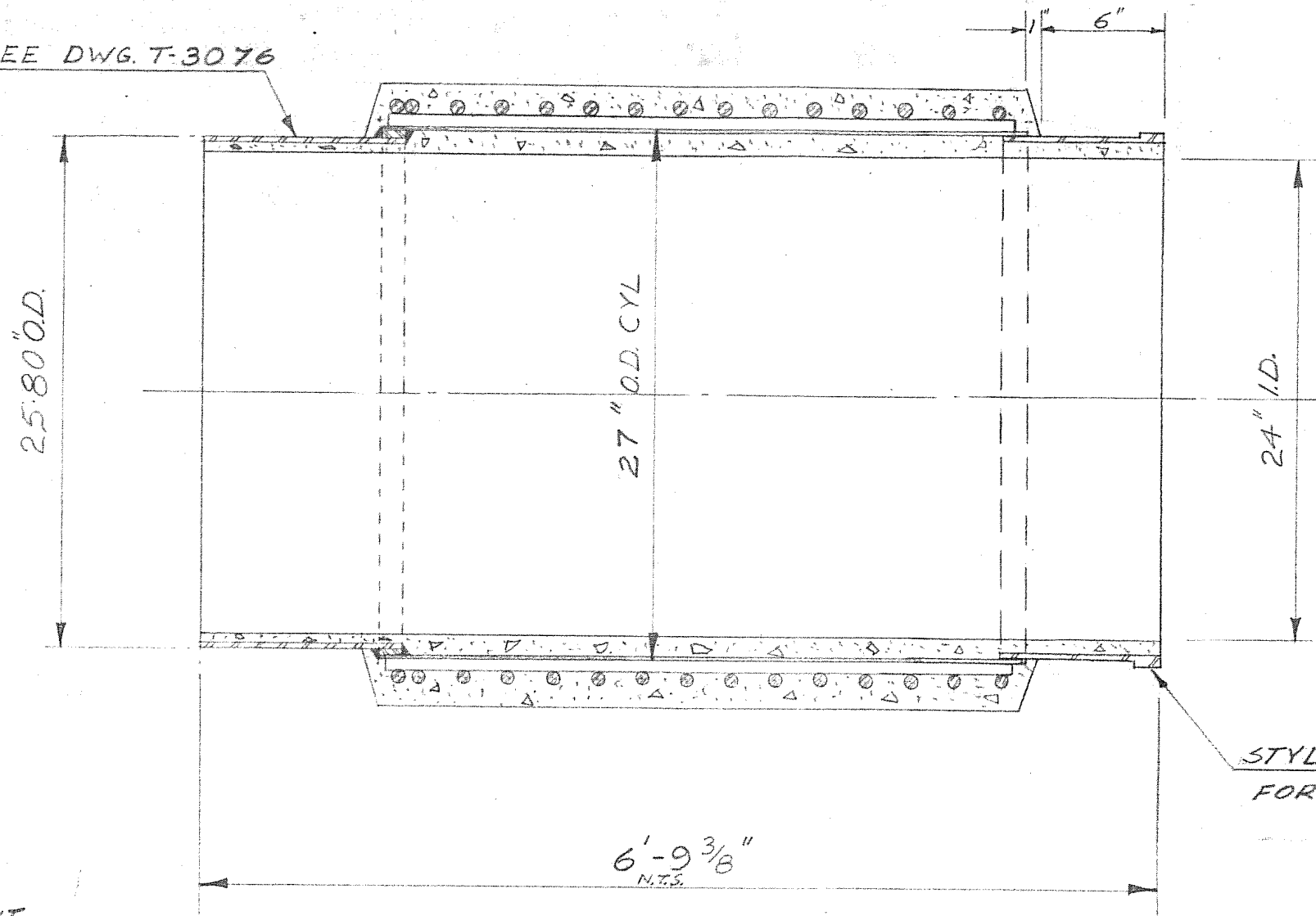
GREATER WINNIPEG WATER DISTRICT
MUNICIPAL WATERMAINS

TITLE:
FORT GARRY ST. VITAL FEEDERMAIN VALVE CHAMBER & BLOWOFF AT WEST SHAFT

APPROVED BY: *[Signature]*
DESIGNED BY: G. E. BURNS
DRAWN BY: H. BUXMAN
DATE: 25 JAN 61
SCALE: 1/2" = 1'-0" & AS NOTED

DRAWING NO. **D-858**

FOR M.J. END SEE DWG. T-3076



GREATER WINNIPEG WATER DISTRICT
 APPROVED JAN 16 1961

STYLE 44 VICTAULIC END
 FOR DETAIL SEE DWG. T-2034

USE KALICRETE CEMENT
 A.W.W.A. - C-300.

1	DEC. 21-60	Flange to Victaulic joint	S.E.
REV.	DATE	DESCRIPTION	BY

PRESSURE PIPE LIMITED

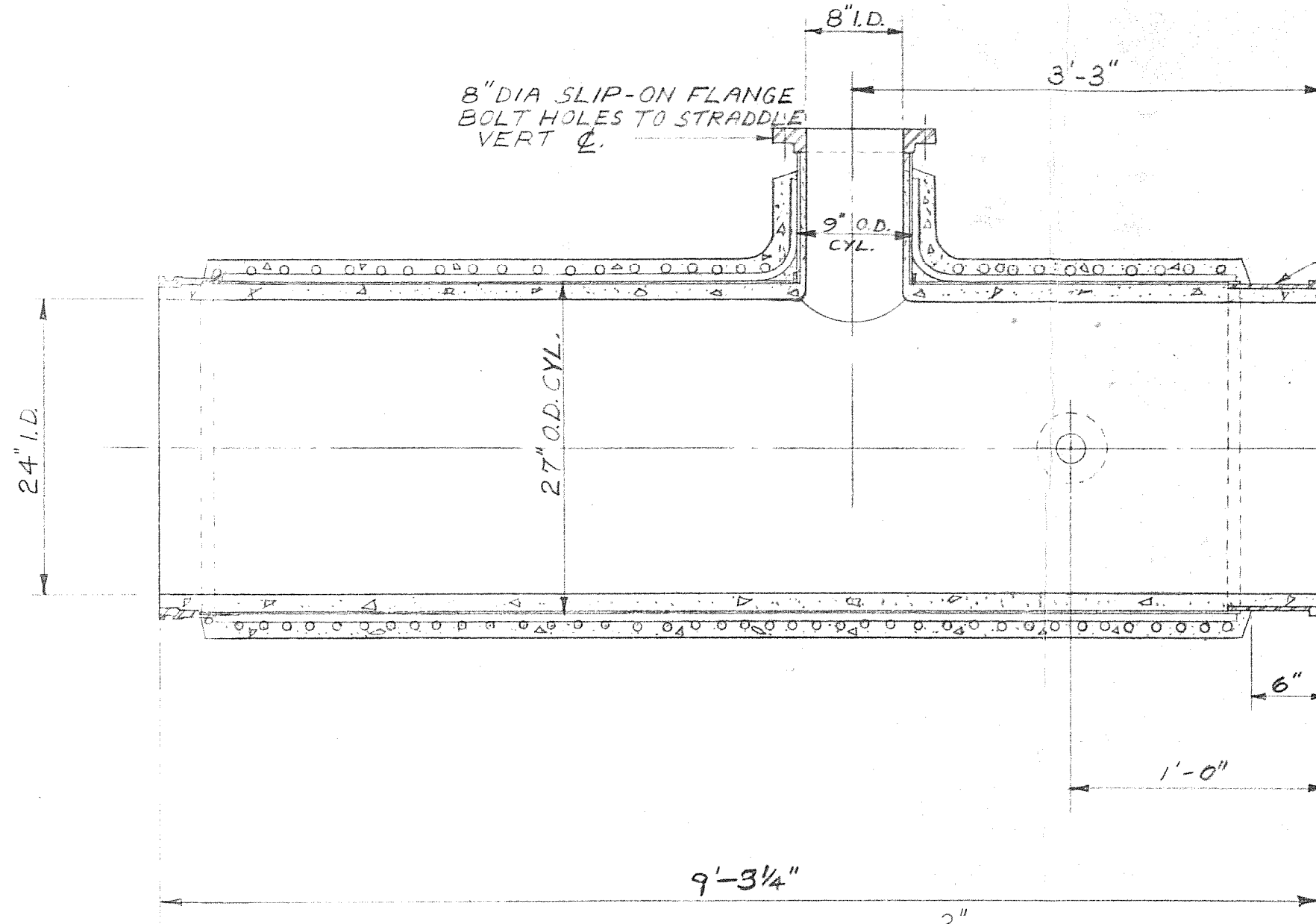
24" DIA SHORT PIPE VICTAULIC &
 MECH. JOINT ENDS.
 G.W.W.D.

REINFORCING STEEL

DIAMETER	24"			
ITEM	SIZE	NUMBER	SIZE	NUMBER
STEEL CYLINDER	# 10 U.S.G.		# U.S.G.	
SPIRALS	3/8" φ	60/10'		
LONGITUDINALS	5/8" φ	16		
WALL THICKNESS	3 1/2"			

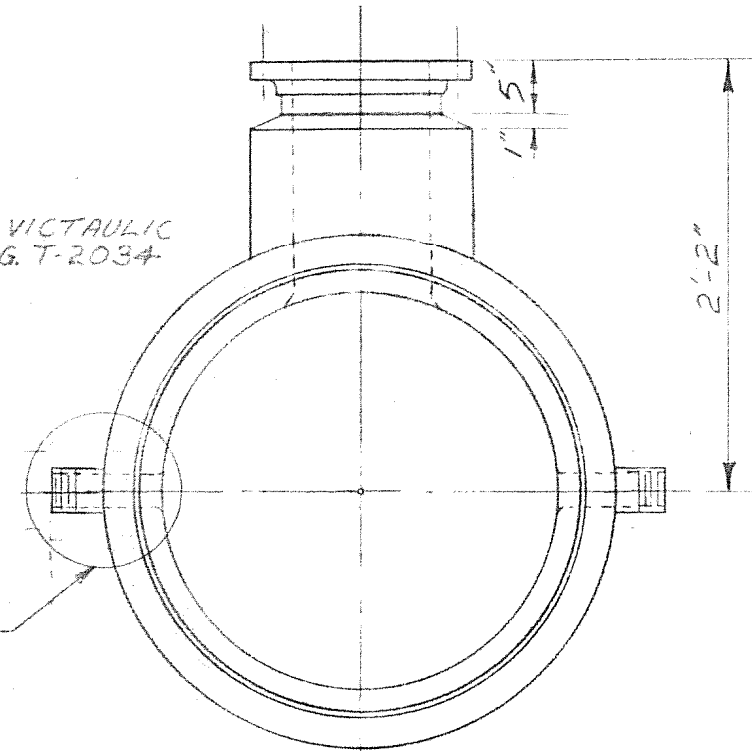
MK. NO.	RCN-7-C
J.O.	479
PRESS	150 P.S.I.

SCALE: 1 1/2" ~ 1 FOOT	DATE: DEC 3/60
DRAWN BY: G.S.	DWG: F-1811
CKD. BY: Ames	



FOR STYLE 44 VICTAULIC
END SEE DWG. T-2034

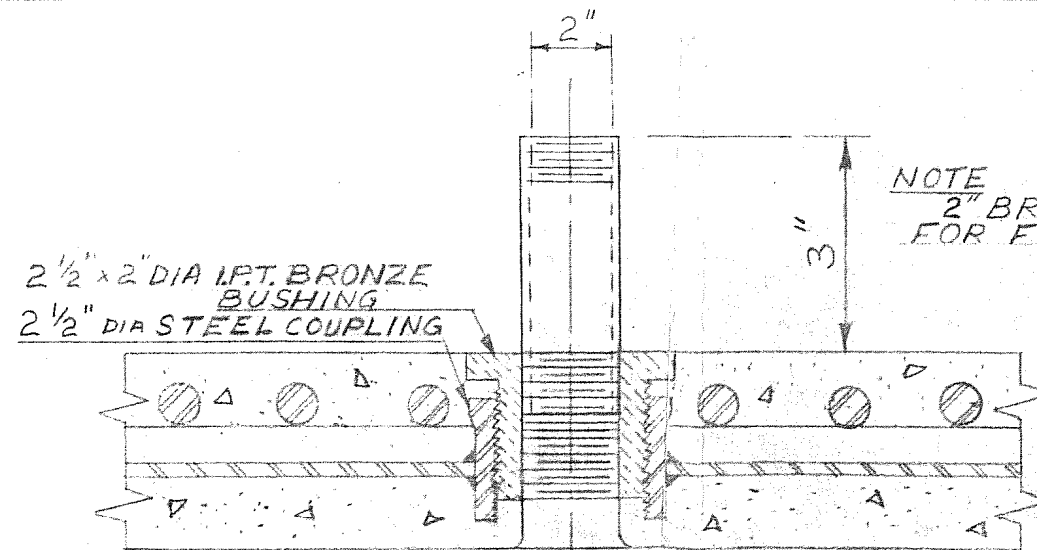
SEE DETAIL 'A'



GREATER WINNIPEG WATER DISTRICT
APPROVED JAN 25 1961
General Manager and Chief Engineer

WEST SHAFT
USE KALICRETE CEMENT

FLANGE DRILLED FOR 125# STD
2 COATS OF BITUMINOUS ENAMEL
A.W.W.A. - C-300 PIPE



NOTE
2" BRANCHES TO BE SUPPLIED
FOR FIELD INSTALLATION.

DETAIL 'A'

2	9/1/61	9'-3/4" WAS 8'-3/4"	SS.
1	DEC. 20-60	2" DIA. FLANGES OMITTED	S.E.
REV.	DATE	DESCRIPTION	BY

PRESSURE PIPE LIMITED

24" DIA PIPE WITH 8" DIA FL. &
2-2" DIA OUTLETS.
G.W.W.D.

SCALE: 1" ~ 1 FOOT DATE: DEC 5/60

DRAWN BY: G.S.

CKD. BY: *Ames*

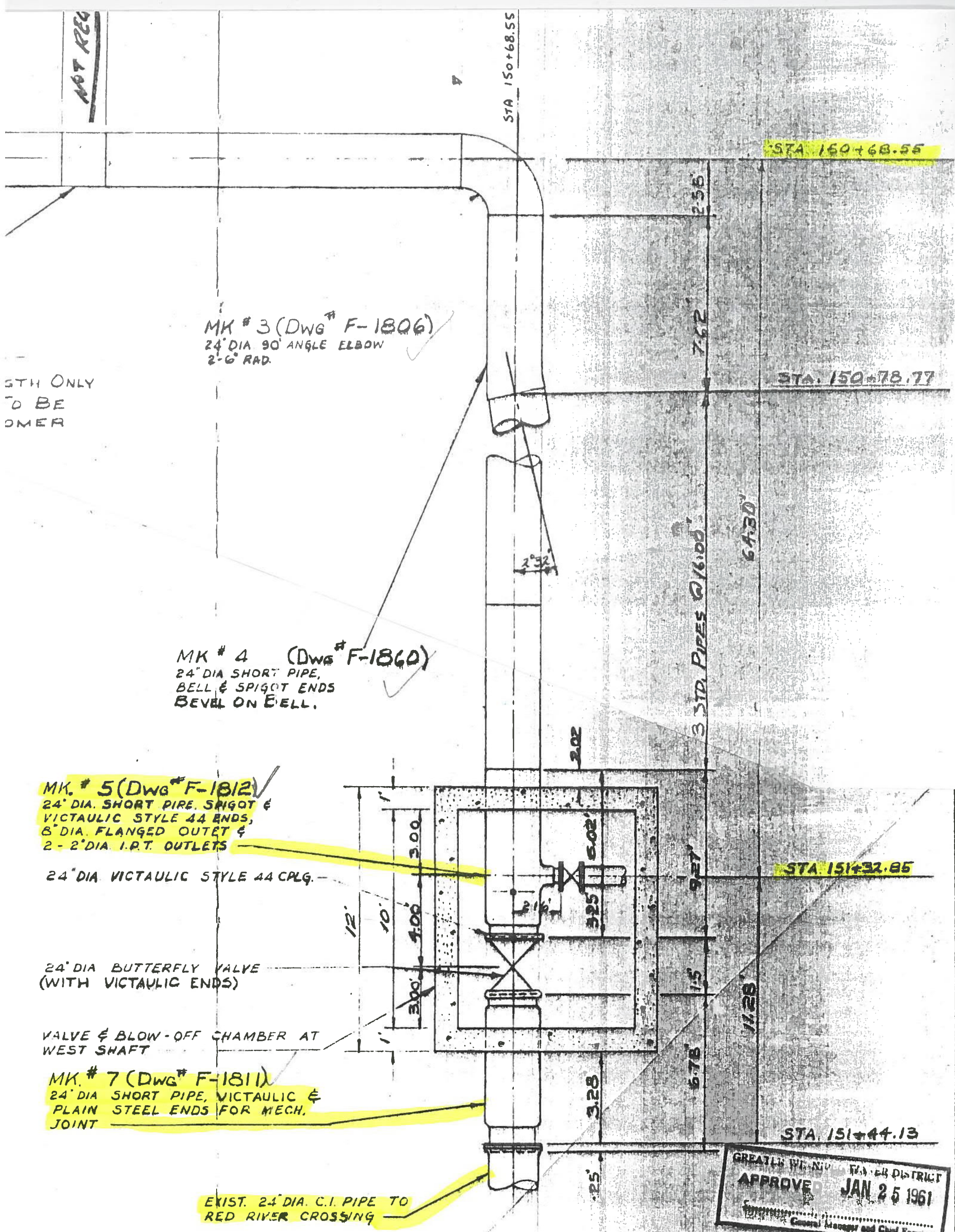
DWG: F-1812

REINFORCING STEEL

DIAMETER	24"		8"	
	SIZE	NUMBER	SIZE	NUMBER
STEEL CYLINDER	# 10 U.S.G.		# 1/4" U.S.G.	
SPIRALS	3/8" φ	60/10'	-	-
LONGITUDINALS	5/8" x 1/2"	16	1/2"	8
WALL THICKNESS	3 1/2"		1" COVER	

FSF-12

MK. NO.	RCN-5-C
J.O.	479
PRESS	150 P.S.I.



5TH ONLY
TO BE
OWNER

MK # 3 (DWG # F-1806)
24" DIA 90° ANGLE ELBOW
2'-6" RAD.

MK # 4 (DWG # F-1860)
24" DIA SHORT PIPE,
BELL & SPIGOT ENDS
BEVEL ON BELL.

MK # 5 (DWG # F-1812)
24" DIA. SHORT PIPE, SPIGOT &
VICTAULIC STYLE 44 ENDS,
8" DIA. FLANGED OUTLET &
2 - 2" DIA. I.P.T. OUTLETS

24" DIA VICTAULIC STYLE 44 CPLG.

24" DIA BUTTERFLY VALVE
(WITH VICTAULIC ENDS)

VALVE & BLOW-OFF CHAMBER AT
WEST SHAFT

MK # 7 (DWG # F-1811)
24" DIA SHORT PIPE, VICTAULIC &
PLAIN STEEL ENDS FOR MECH.
JOINT

EXIST. 24" DIA. C.I. PIPE TO
RED RIVER CROSSING

GREATER WINNIPEG WATER DISTRICT
APPROVED JAN 25 1961
General Manager and Chief Engineer

PRESSURE PIPE LIMITED

PLAN SHOWING 24" DIA. FEEDER
MAIN AT WEST SIDE OF RED
RIVER. STA 130+50 TO STA 151+48.4

GREATER WINNIPEG WATER DISTRICT
SCALE: 1/4" = 1'-0" DATE: 5 DEC 1960

FSF-15

REV	DATE	DESC.	BY
2	20/1/61	CHANGED PER. REV. PRINT. JAN 16/1961	SS
1	5/1/61	MISC. CHANGES	SS

DRAWN BY RM
CHKD. BY: [Signature]

DWG: T-4090
F-1807