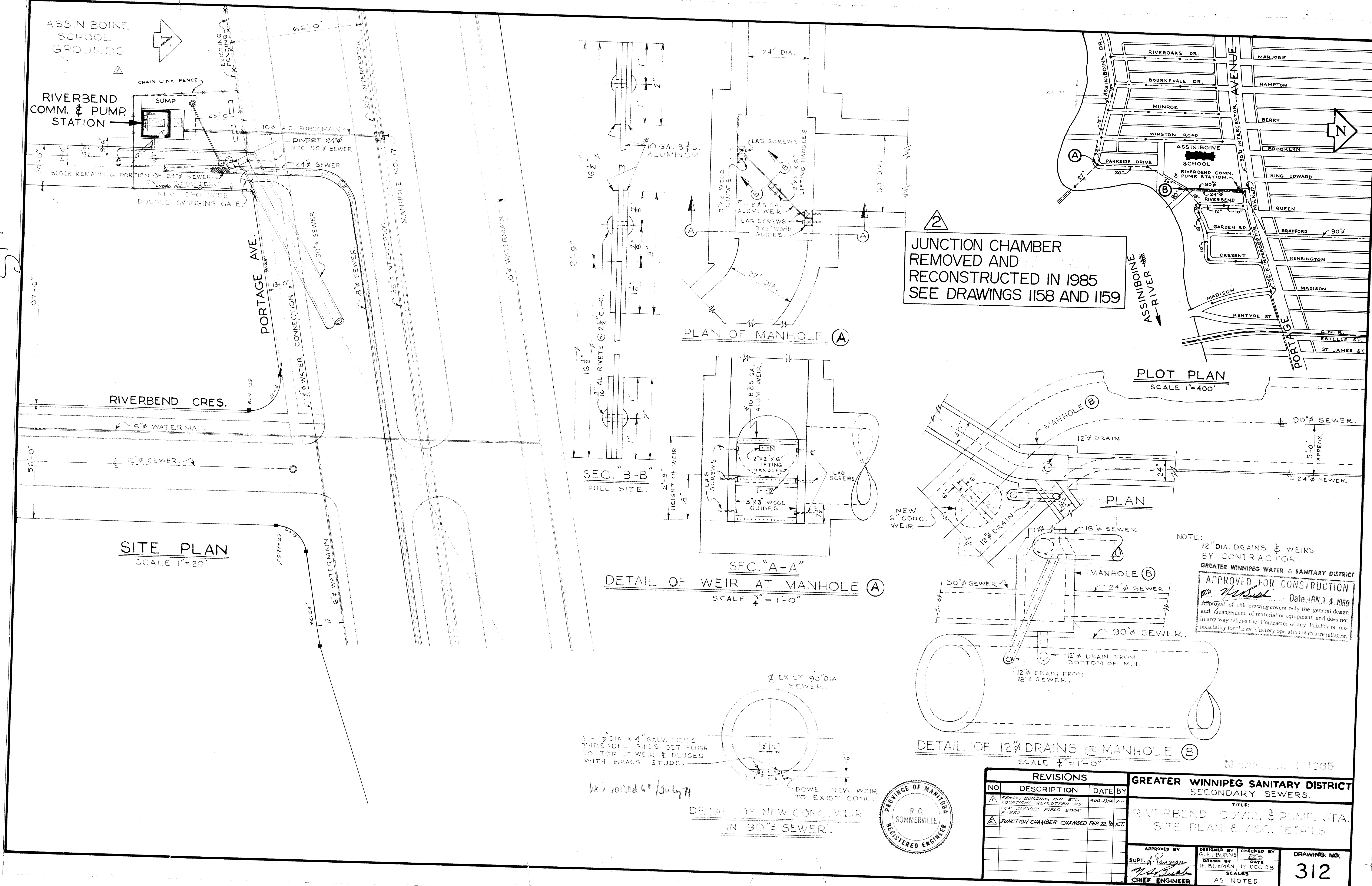
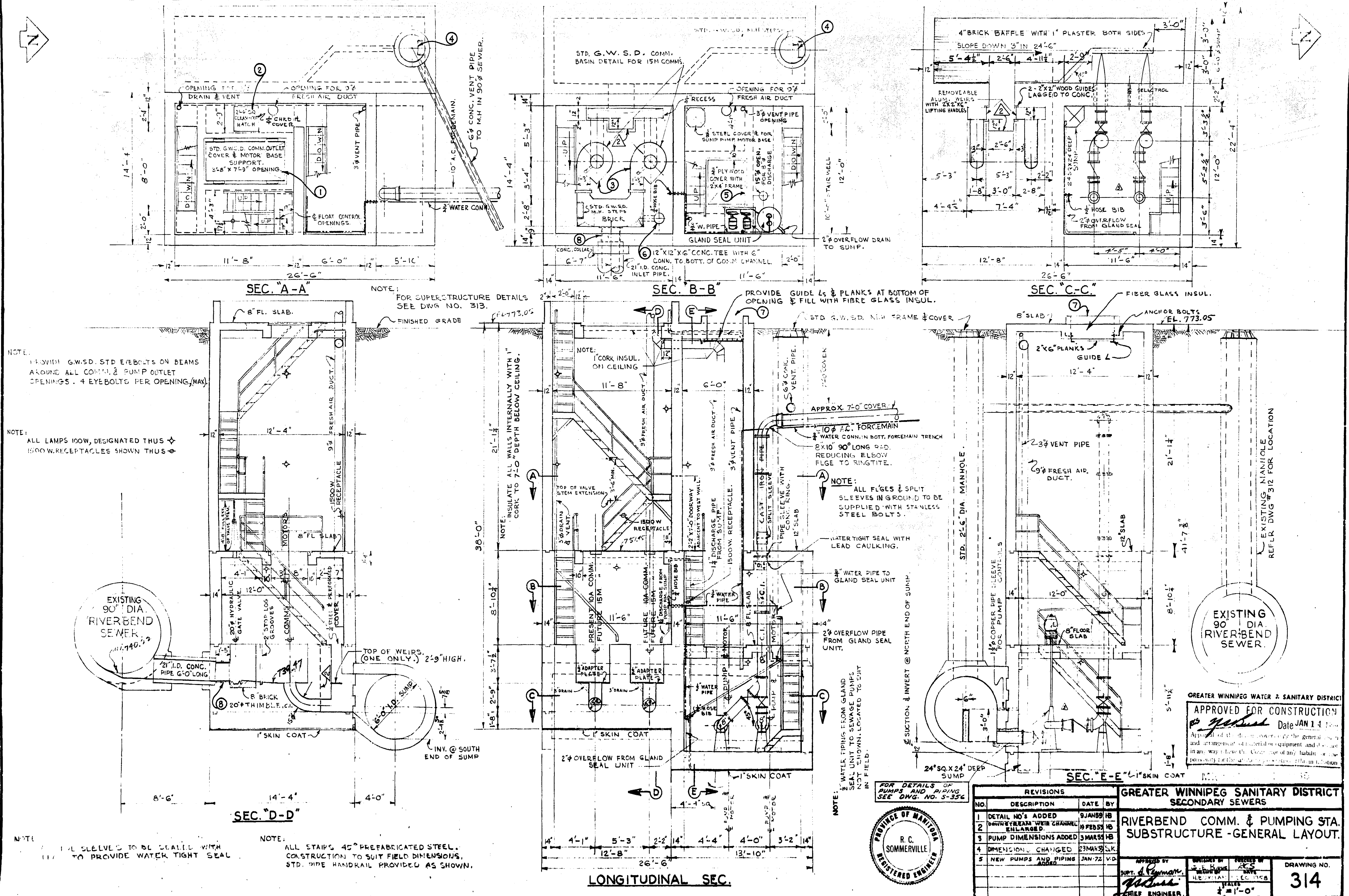


APPENDIX 'E'

RECORD DRAWINGS

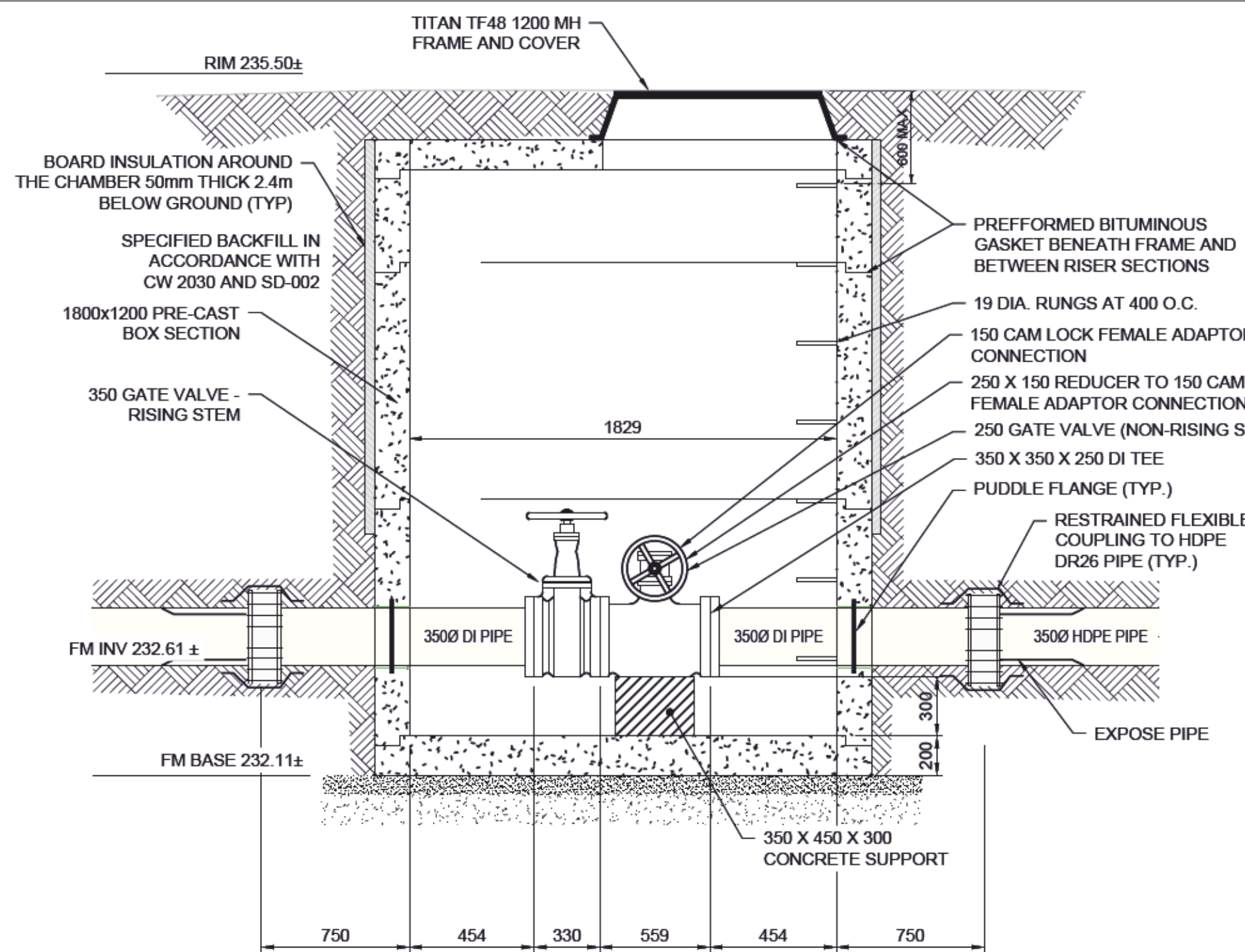
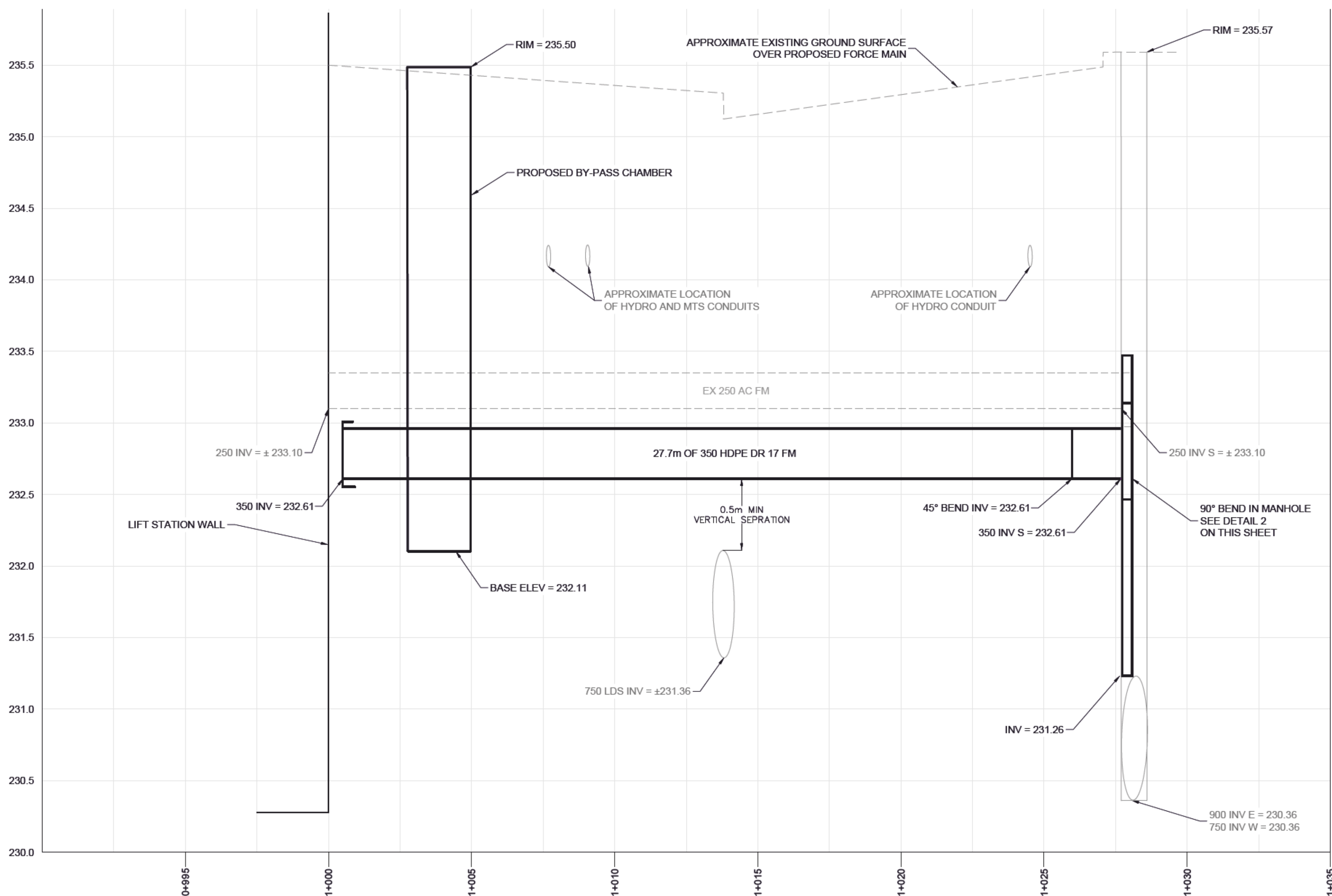
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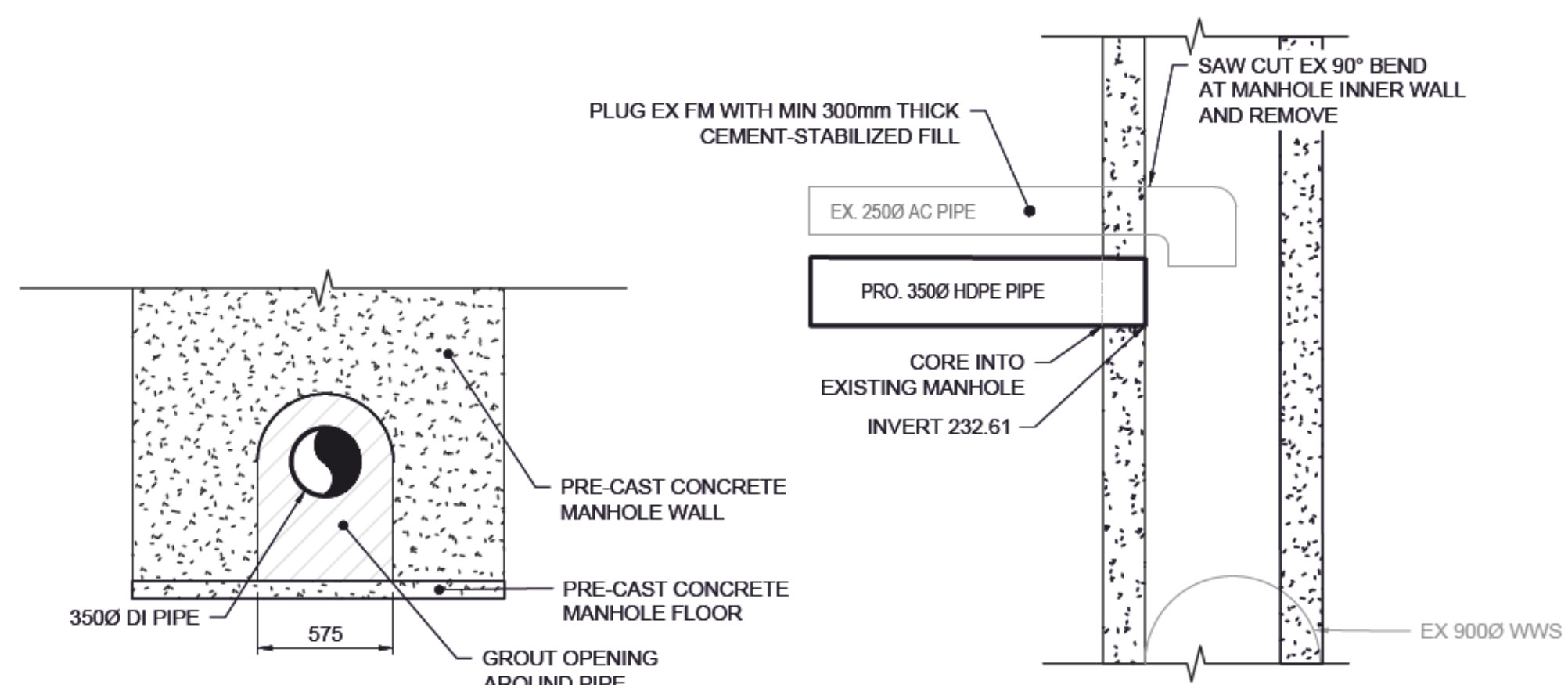


A1 SIZE - 594mm x 841mm

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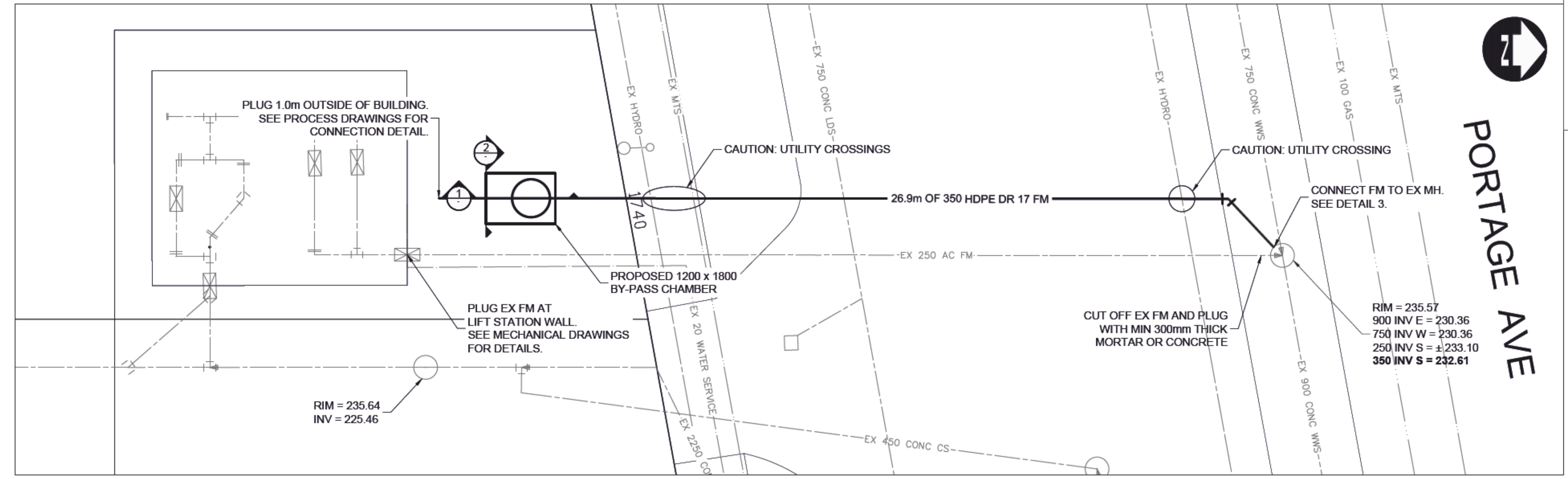


1 BY-PASS CHAMBER SECTION
SCALE: NTS



2 PIPE OPENING DETAIL
SCALE: NTS

3 MANHOLE CONNECTION DETAIL
SCALE: NTS



- FORCE MAIN CONSTRUCTION NOTES:**
1. LOCATION OF ALL EXISTING SERVICES INDICATED ARE BASED ON THE BEST AVAILABLE INFORMATION. ALL SERVICES MAY NOT BE SHOWN AND ACCURACY IS NOT GUARANTEED.
 2. CONTRACTOR IS RESPONSIBLE TO LOCATE ALL UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION TO CONFIRM ELEVATIONS.
 3. INSTALL FORCEMAIN BY TRENCHLESS METHODS ACROSS PORTAGE AVENUE.
 4. TRENCHES AND EXCAVATIONS WITHIN 1.0 m OF A PAVED AREA INCLUDING SIDEWALKS SHALL BE CLASS 3 BACKFILL.
 5. ALL WORK AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS UNLESS INDICATED OTHERWISE.
 6. WHERE CROSSING AN EXISTING WATERMAIN, THE FORCE MAIN SHALL BE INSTALLED TO MAINTAIN A MINIMUM 0.5m VERTICAL CLEARANCE BETWEEN THE PIPES IF INSTALLED BELOW OR 1.0m VERTICAL CLEARANCE BETWEEN THE PIPES IF INSTALLED ABOVE THE WATERMAIN. WHERE CROSSING AN EXISTING LAND DRAINAGE SEWER, THE MAIN SHALL BE INSTALLED TO MAINTAIN A MINIMUM 0.5m VERTICAL CLEARANCE BETWEEN THE PIPES.

NOT FOR CONSTRUCTION

ISSUED FOR TENDER

ENGINEERS
GEOSCIENTISTS
MANITOBA

Certificate of Authorization
Dillon Consulting Limited (MB)
No. 1789 Date:

DESIGNED BY:	SDG	CHECKED BY:	-
DRAWN BY:	TJH	APPROVED BY:	-
SCALE:	H=1:100, V=1:20	RELEASED FOR CONSTRUCTION BY:	-
DATE:	JUNE 2023	DATE:	-
CONSULTANT NO.:	22-3229		
ISSUED FOR TENDER	2023/07/20	SDG	-
NO. REVISIONS	DATE	DESIGN	CHECK



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

RIVERBEND LIFT PUMPING STATION
2022 UPGRADES

CIVIL FORCEMAIN PLAN-PROFILE

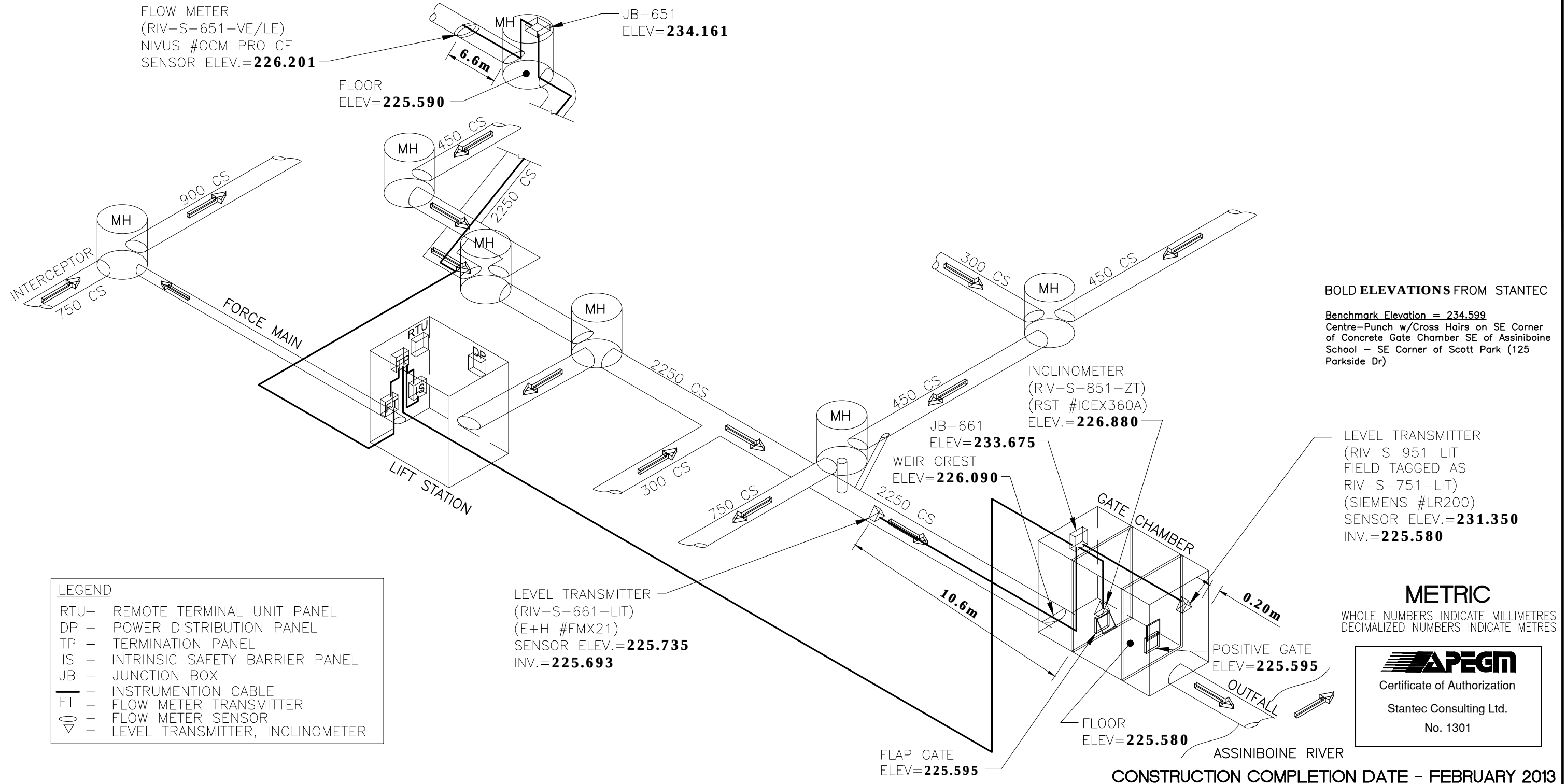
CITY DRAWING NUMBER
1-0178L-C0001

SHEET
001

REV.
00

SIZE
A1

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2015/08/18 11:33 AM By: Bekker, Kyle



LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

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	DATE	BY
E	REVISED AS-BUILT DRAWING	13.07.24	S.T.
D	AS-BUILT DRAWING	13.05.31	S.T.
C	ISSUED FOR CLIENT REVIEW	13.04.15	J.C.
B	ISSUED FOR CLIENT REVIEW	13.03.21	J.C.
A	ISSUED FOR CLIENT REVIEW	12.07.13	J.C.



Stantec

500-311 Portage Avenue, Winnipeg, Manitoba
Tel 204-489-5900 Fax 204-453-9012

DESIGNED BY	S.T.	CHECKED BY	J.C.
DRAWN BY	R.J.H.	APPROVED BY	J.C.
HOR. SCALE:	N.T.S.	RELEASED FOR CONSTRUCTION:	
VERTICAL:			
DATE	2012.06.06	DATE	

ENGINEER'S SEAL

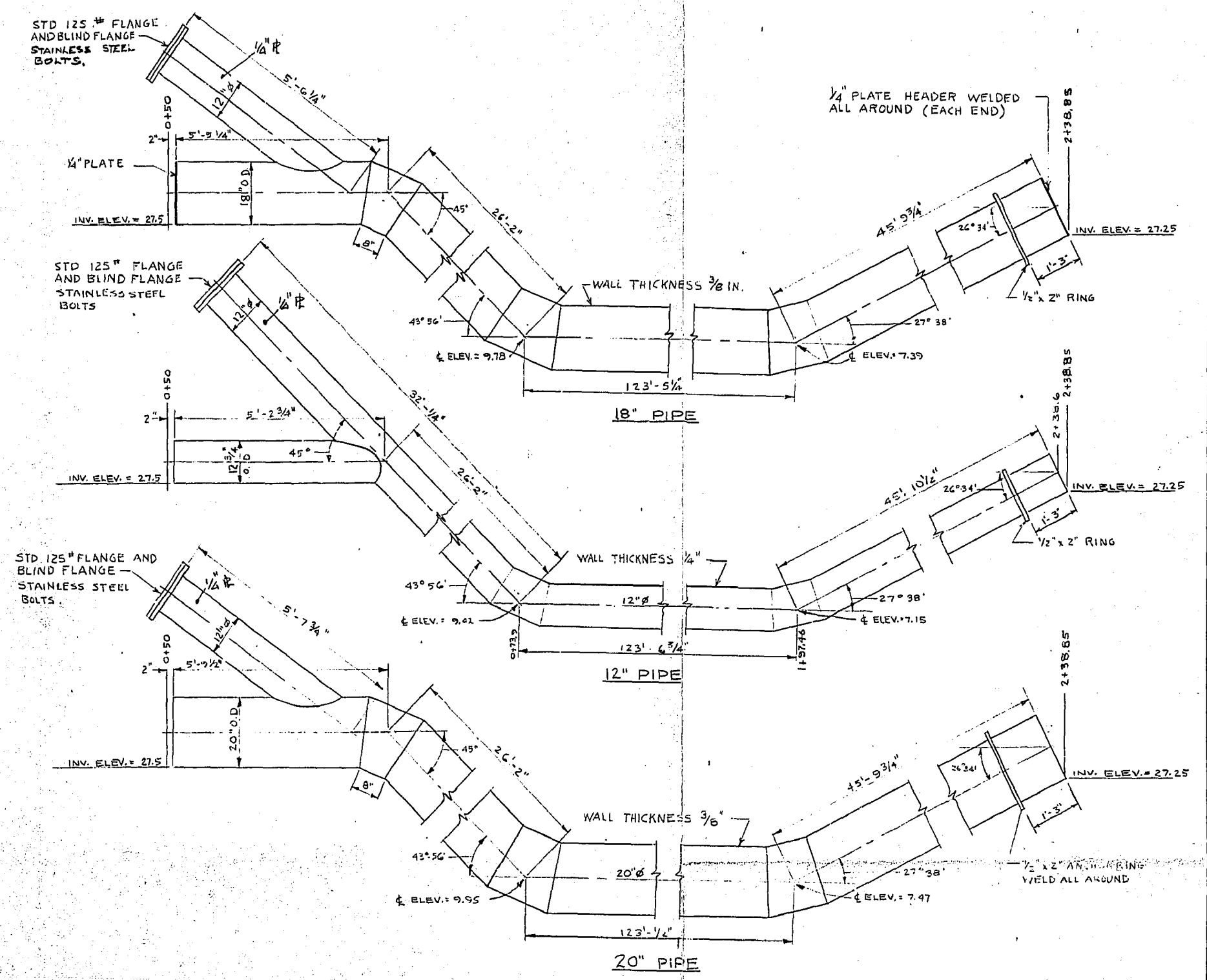
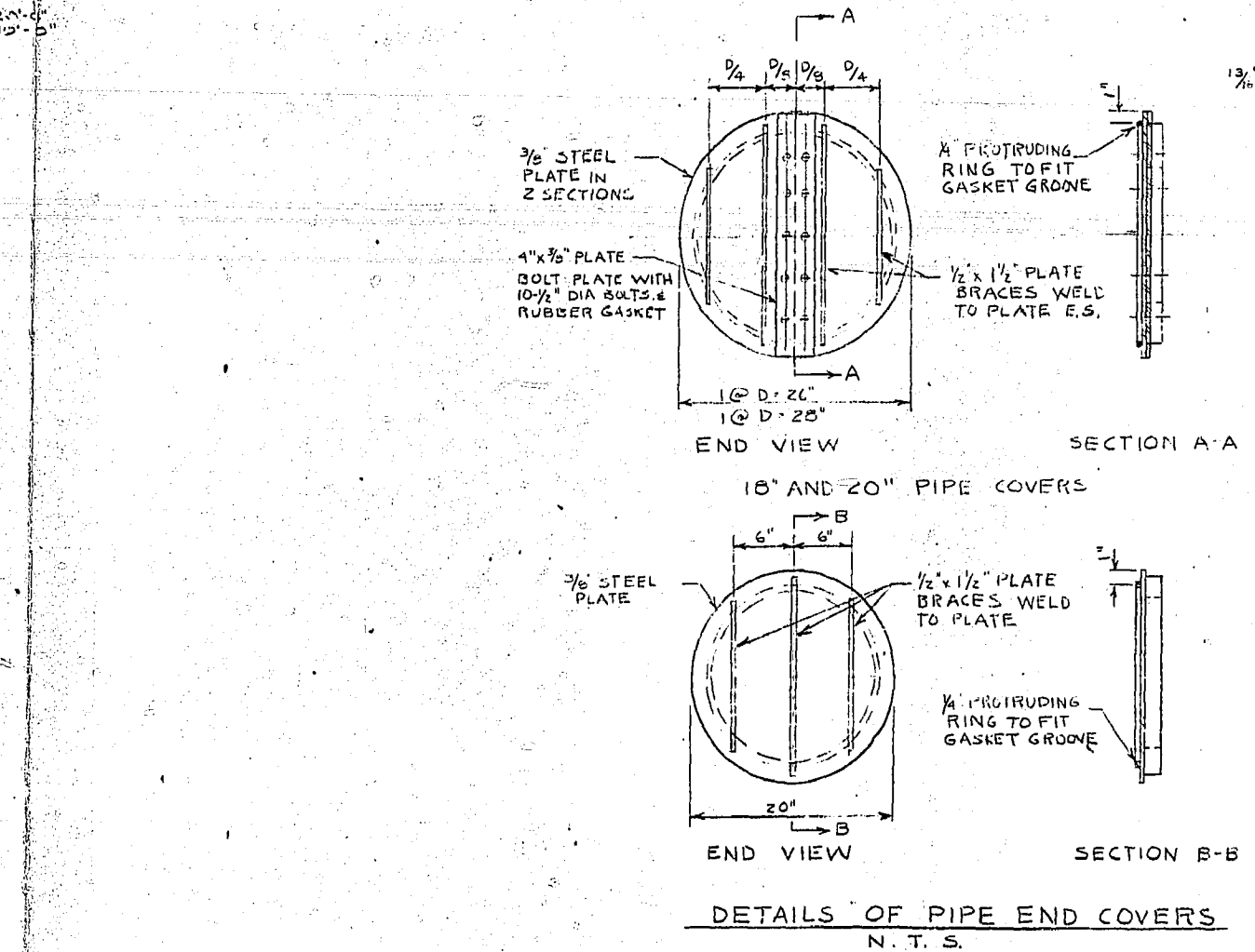
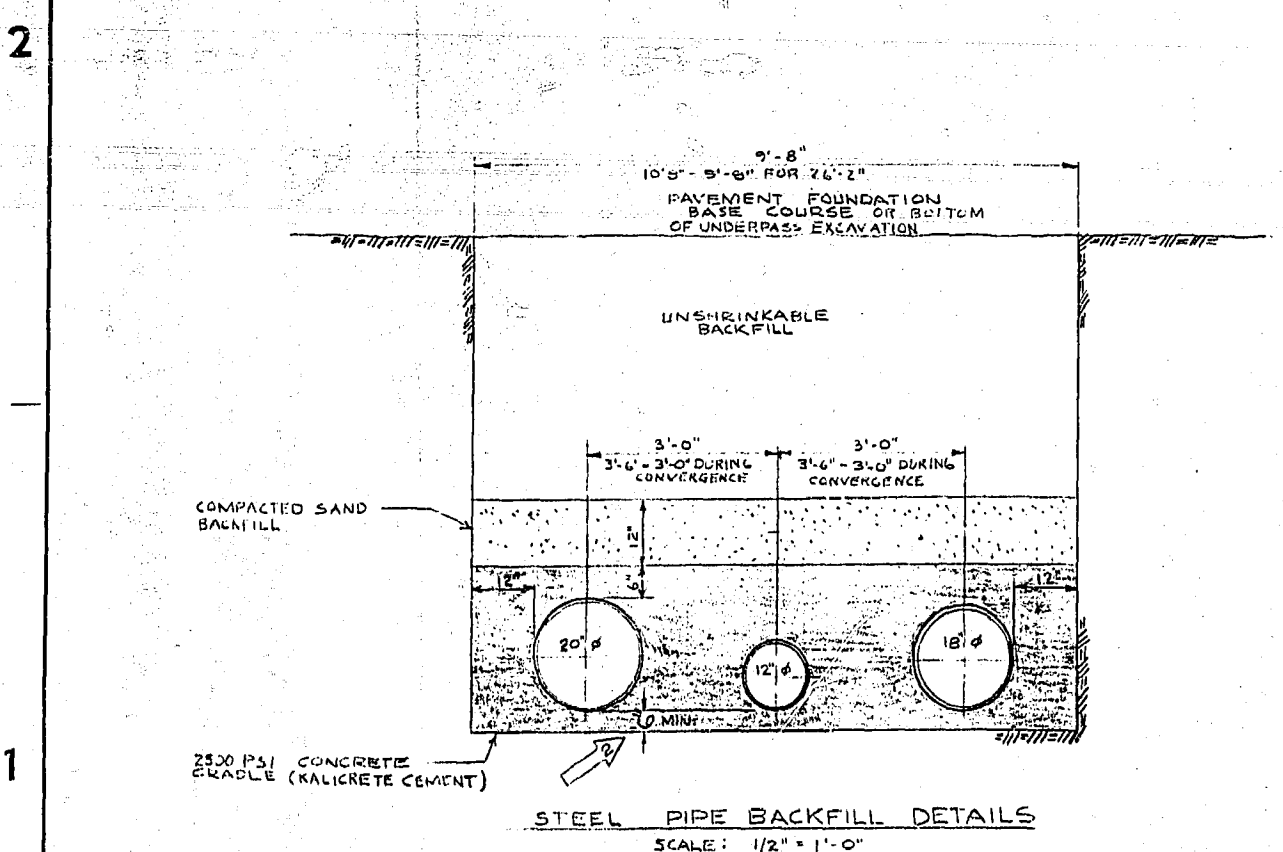
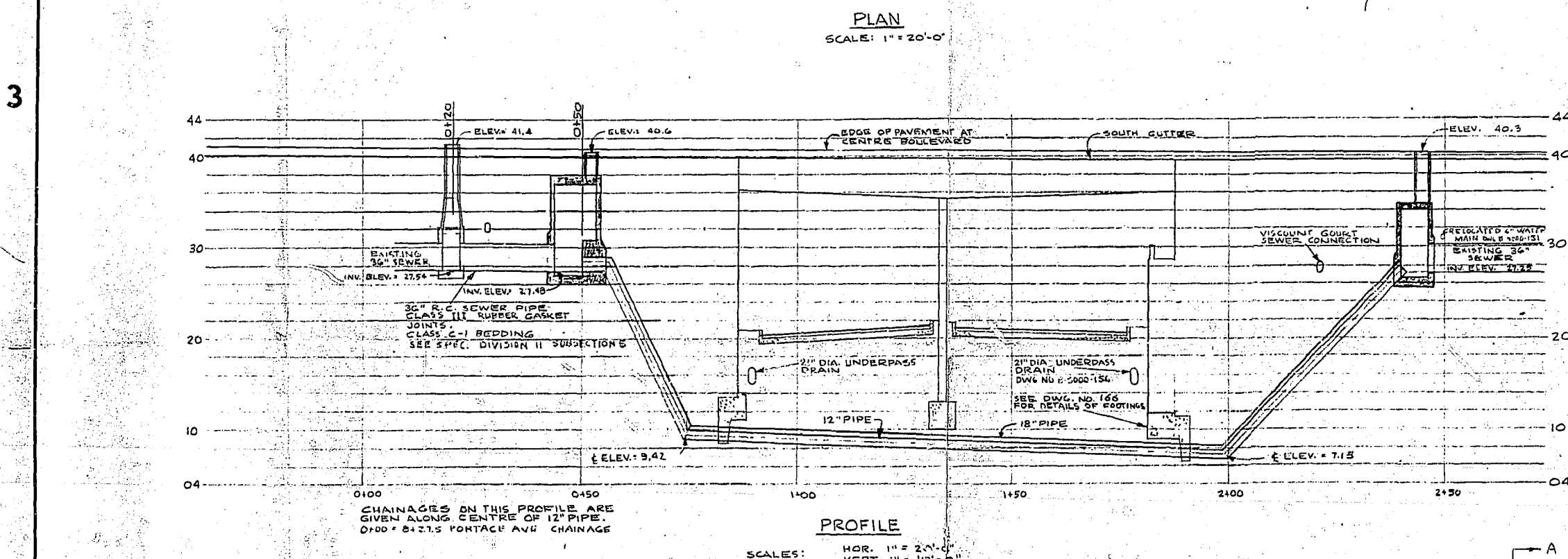
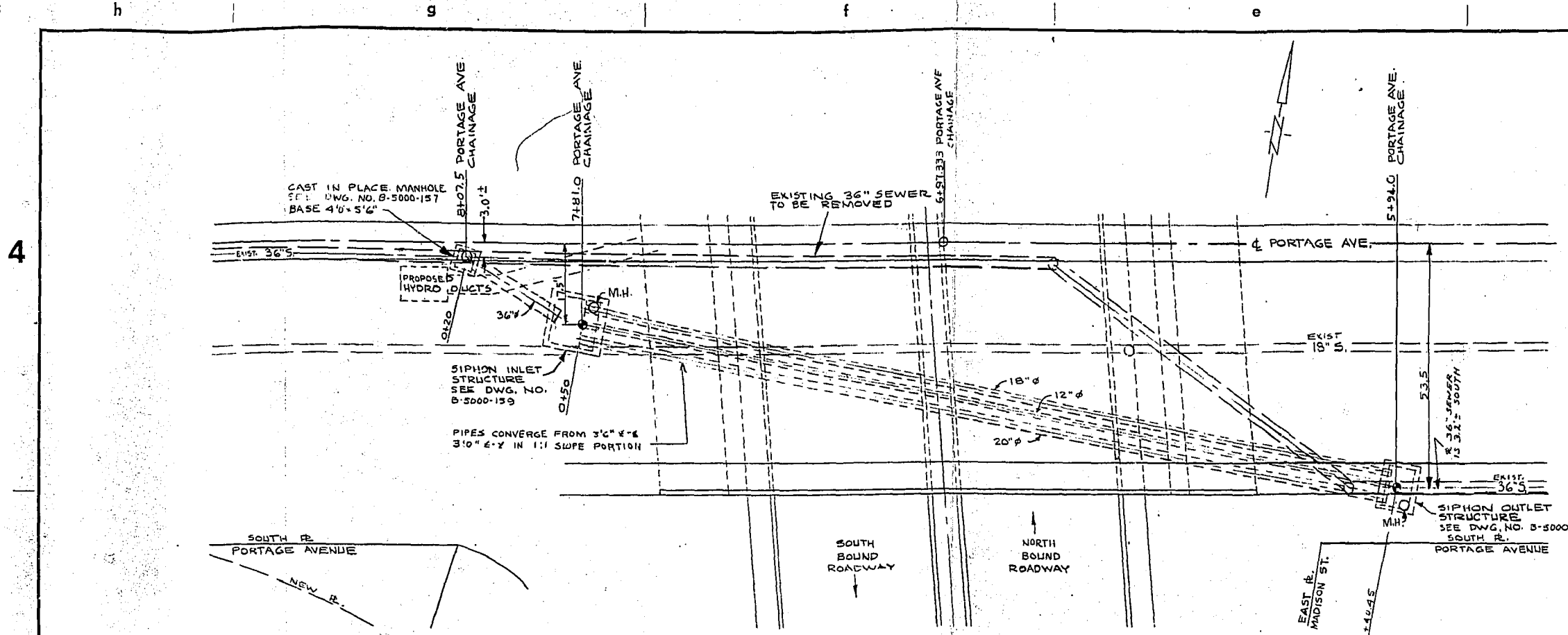
CONSULTANT DRAWING NO.
E-2301



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

CSO OUTFALL MONITORING
RIVERBEND
3D ISOMETRIC PLAN

SHEET	OF
1	2
CAD FILE DRAWING NUMBER	13650e-2301-riv.dwg
CITY DRAWING NUMBER	I-0188-A-A0202-001-00

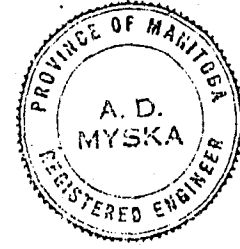


- NOTE:
1. CONTRACTOR SHALL SUPPLY DETAILED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION OF PIPES. LOCATION OF FIELD WELDS MUST BE CLEARLY SHOWN.
 2. STEEL TO CONFORM TO ASTM A-283 GRADE B OR C.
 3. FINISH:
 - ALL PIPES TO BE CLEANED BY SAND BLASTING UPON COMPLETION OF SHOP FABRICATION
 - PORTIONS OF PIPES NOT ENCASED IN CONCRETE SHALL BE PAINTED WITH TWO COATS OF LIQUID NEOPRENE
 - PIPES ENCASED IN CONCRETE TO BE PRIMED AND PAINTED AS SPECIFIED
 - FIELD SPACES SHALL BE WRAPPED WITH POLYKAY NO. 800, 4" WIDE TAPE. TAPE TO BE LAPPED 1/2" AND TO EXTEND TO COVER A MIN. OF 2" OF PAINTED PIPE ON EITHER SIDE OF JOINT.
 4. HANDLING: BARE CABLES, CHAINS, HOOKS, METAL BARS OR NARROW SKIDS SHALL NOT BE PERMITTED TO COME IN CONTACT WITH THE FINISHED PIPE. ANY DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER BEFORE PIPE IS LOWERED INTO THE TRENCH.

SUPPLY 4 STAINLESS STEEL 3/4" BOLTS LENGTH TO SUIT CONCRETE INSERTS

CHANNEL DETAILS

GASKET DETAILS



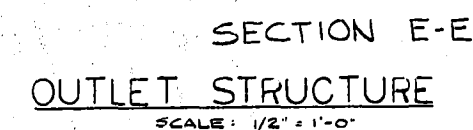
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22 JUN 62			AS-BUILT	G. G. S.
MAR 4 63	3	2	PIPE COATING & CONC. CRADLE DEPTH REVISED	R.M.
FEB 12 63	2		FOR CONSTRUCTION	R.M.
FEB 12 63		1	CONCRETE IN PIPE CRADLE 2500 P.S.I.	A.M.
JAN 15 63			FOR TENDER	A.M.
DATE	ISSUE No.	REV. No.	DESCRIPTION	DRAWN BY
ISSUE OR REVISION				
METROPOLITAN CORPORATION OF GREATER WINNIPEG				
STREETS AND TRANSIT DIVISION				
ST. JAMES BRIDGE AND INTERCHANGE				
INVERTED SIPHON				
GENERAL ARRANGEMENT AND PIPE DETAILS				
TEMPLETON ENGINEERING COMPANY			IN ASSOCIATION WITH	
PROFESSIONAL ENGINEERS			A. D. MARGISON AND ASSOCIATES LIMITED	
WINNIPEG, MANITOBA			CONSULTING PROFESSIONAL ENGINEERS	
			TORONTO, CANADA	
APPROVED	DRAWN BY R.M.		DATE NOVEMBER, 1962	
CHECKED A.M.		SCALE AS SHOWN		
FILE No.		DWG. No.		
SHEET No.		B-5000-158		



SECTION B-B



SECTION C-C

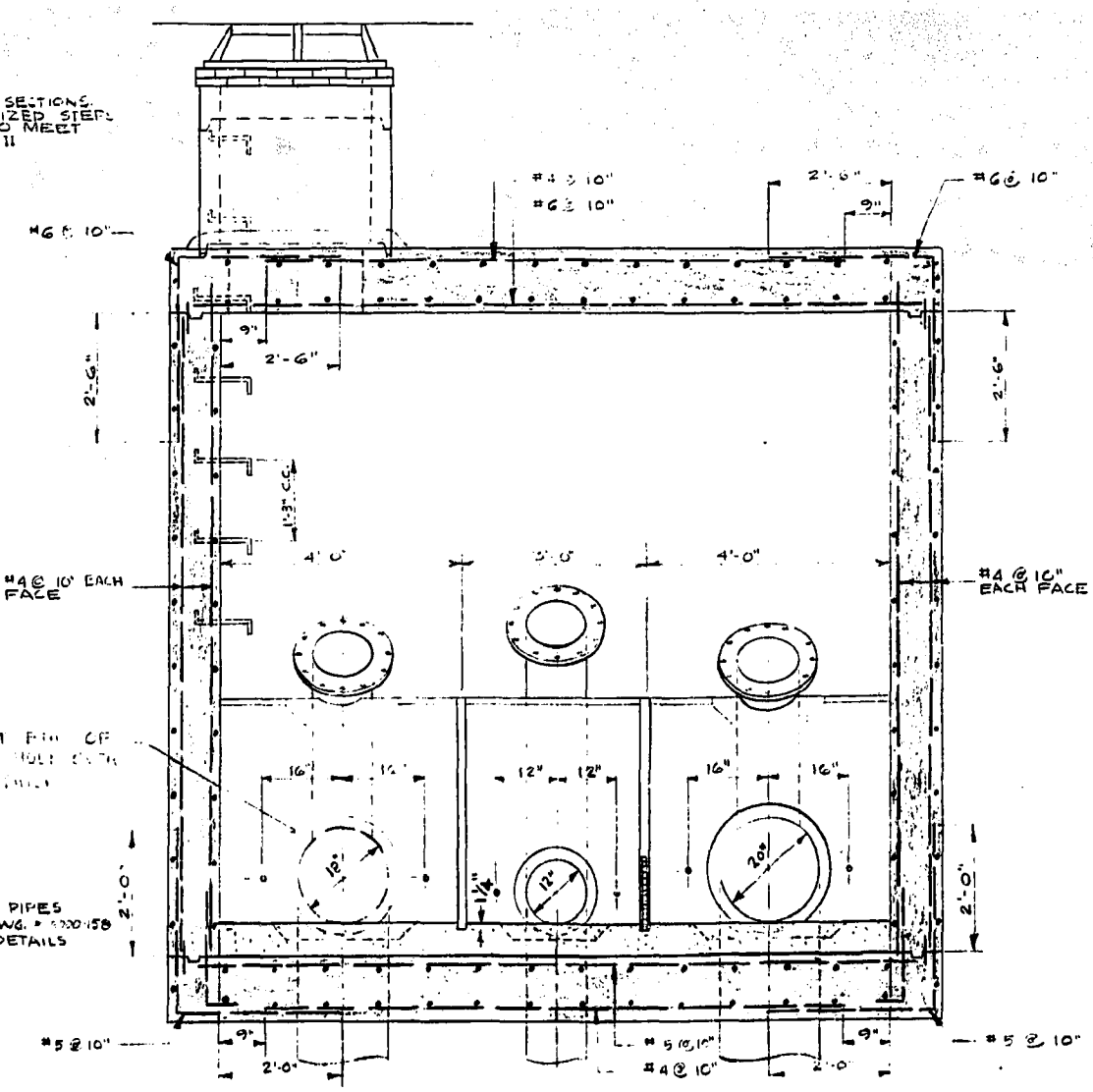


DETAIL OF CAST IN PLACE
STEPS
SCALE: 1" = 1'-0"

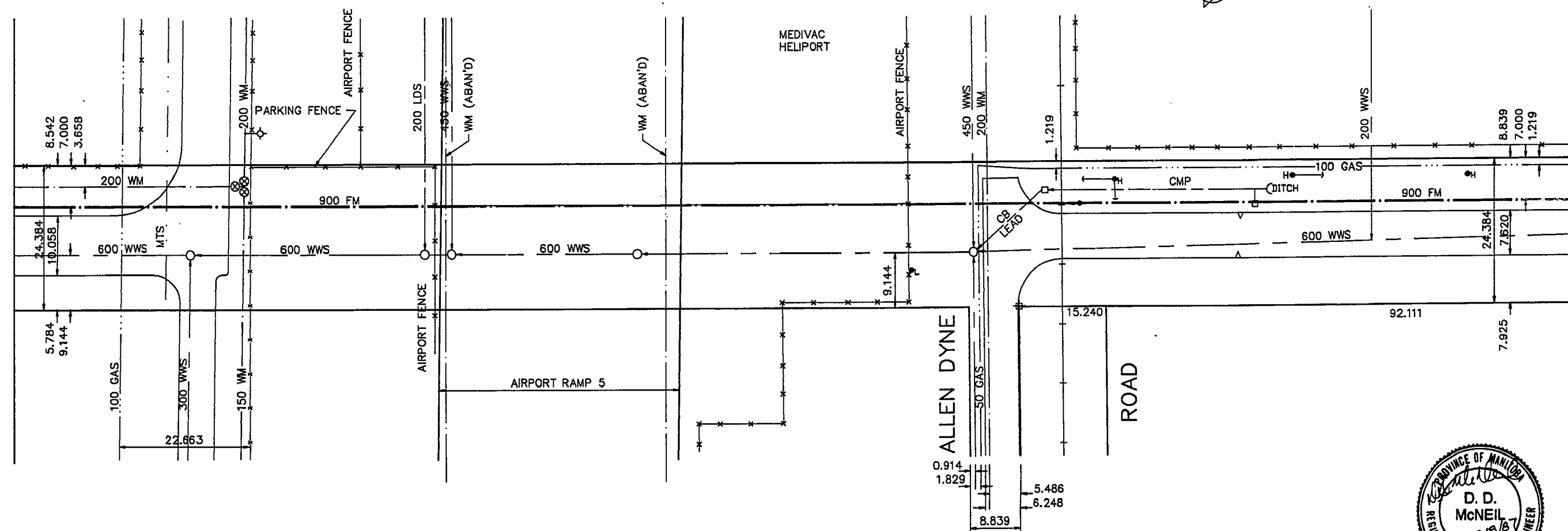
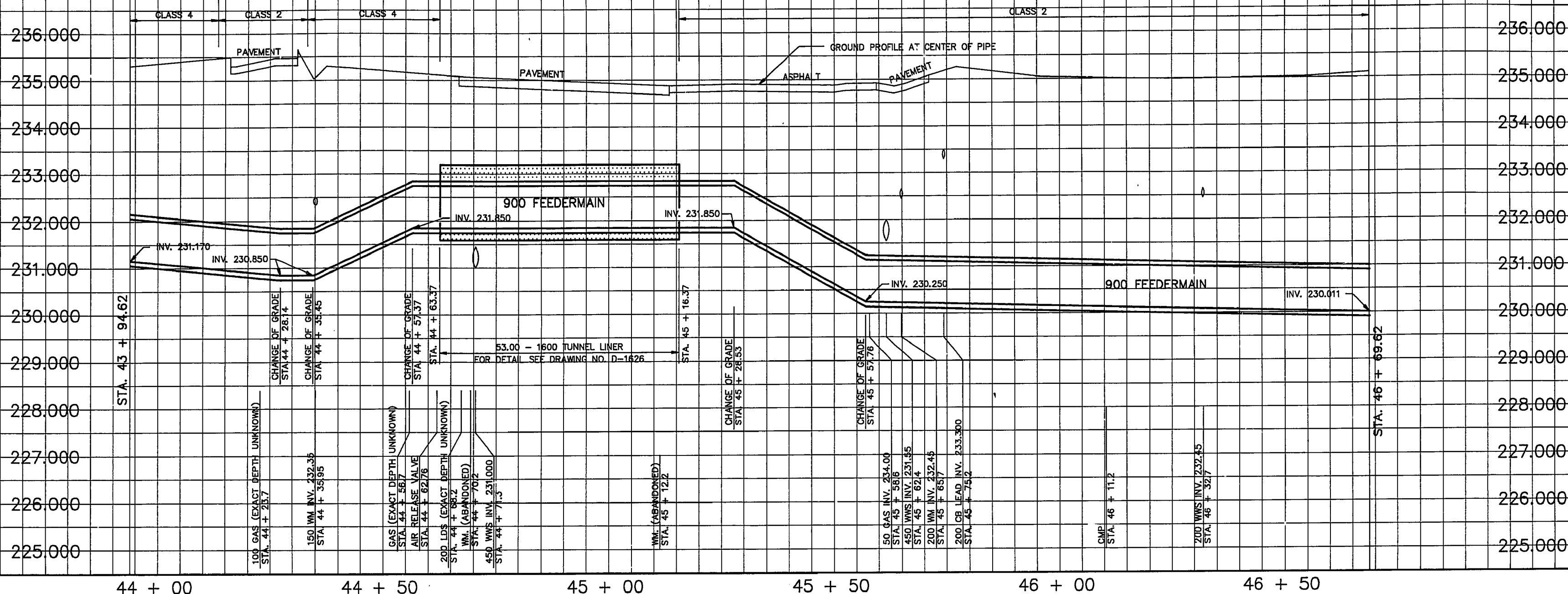


-
- IRVING ALUMINUM X-BAR GRATING
TYPE AA BEARING BARS: 1 3/4" x 3/16"
SYMBOL 5 S.
- GALVANIZED EYE BULTS
(1 EACH END)
- 3"
- 3"
- 1 1/2" ALUMINUM SHEET, FASTEN TO GRATING
- 14 0'-5"
- 2 5'-8"
- SIDE VIEW
- END VIEW

DETAIL OF REMOVABLE WEIRS (2 REQ'D)



22 JUN 64					AS-BUILT					G.S.		
FEB. 12/63				2	FOR CONSTRUCTION					E.M.		
JAN 15/63				1	FOR TENDER					A.M.		
DATE	ISSUE No.	REV. No.	DESCRIPTION							DRAWN BY		
ISSUE OR REVISION												
METROPOLITAN CORPORATION OF GREATER WINNIPEG STREETS AND TRANSIT DIVISION												
ST. JAMES BRIDGE AND INTERCHANGE												
INVERTED SIPHON INLET AND OUTLET STRUCTURES												
TEMPLETON ENGINEERING COMPANY PROFESSIONAL ENGINEERS WINNIPEG, MANITOBA					IN ASSOCIATION WITH		A. D. MARGISON AND ASSOCIATES LIMITED CONSULTING PROFESSIONAL ENGINEERS TORONTO CANADA					
APPROVED					DRAWN BY R. M.					DATE NOVEMBER, 1962		
C.E. DIRECTOR OF STREETS AND TRANSIT					CHECKED A. M.					SCALE AS SHOWN		
					FILE No.					DWG. No.		
					SHEET No.					B-5000-159		



2W-533

AS-CONSTRUCTED
 INSPECTION SURVEY
 TECHNICAL SERVICES
 WATERWORKS, WASTE & DISPOSAL DEPARTMENT
 DATE: 10/11/07



METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

200 WM	WATERMAIN	200 WM	SL, HYDRO	150 WM	WATERMAIN	150 WM
HYDRANT	HYDRANT	HYDRANT	MTS	HYDRANT	HYDRANT	HYDRANT
VALVE	VALVE	VALVE	CONCRETE	VALVE	VALVE	VALVE
525 LDS	LAND DRAINAGE SEWER	525 LDS	PROPERTY LINE	300 LDS	LAND DRAINAGE SEWER	300 LDS
375 WWS	WASTEWATER SEWER	375 WWS	SURVEY BAR	250 WWS	WASTEWATER SEWER	250 WWS
MANHOLE	MANHOLE	MANHOLE	FENCE			
CATCH BASIN	CATCH BASIN	CATCH BASIN	POLE - HYDRO, MTS			
CURB INLET	CURB INLET	CURB INLET	RAILWAY SIGN			
JUNCTIONS	JUNCTIONS	JUNCTIONS	GUY ANCHOR			
CULVERT	CULVERT	CULVERT	LIGHT STANDARD			
50 GAS	GAS	50 GAS	TREE			
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING
				LEGEND-PROFILE		

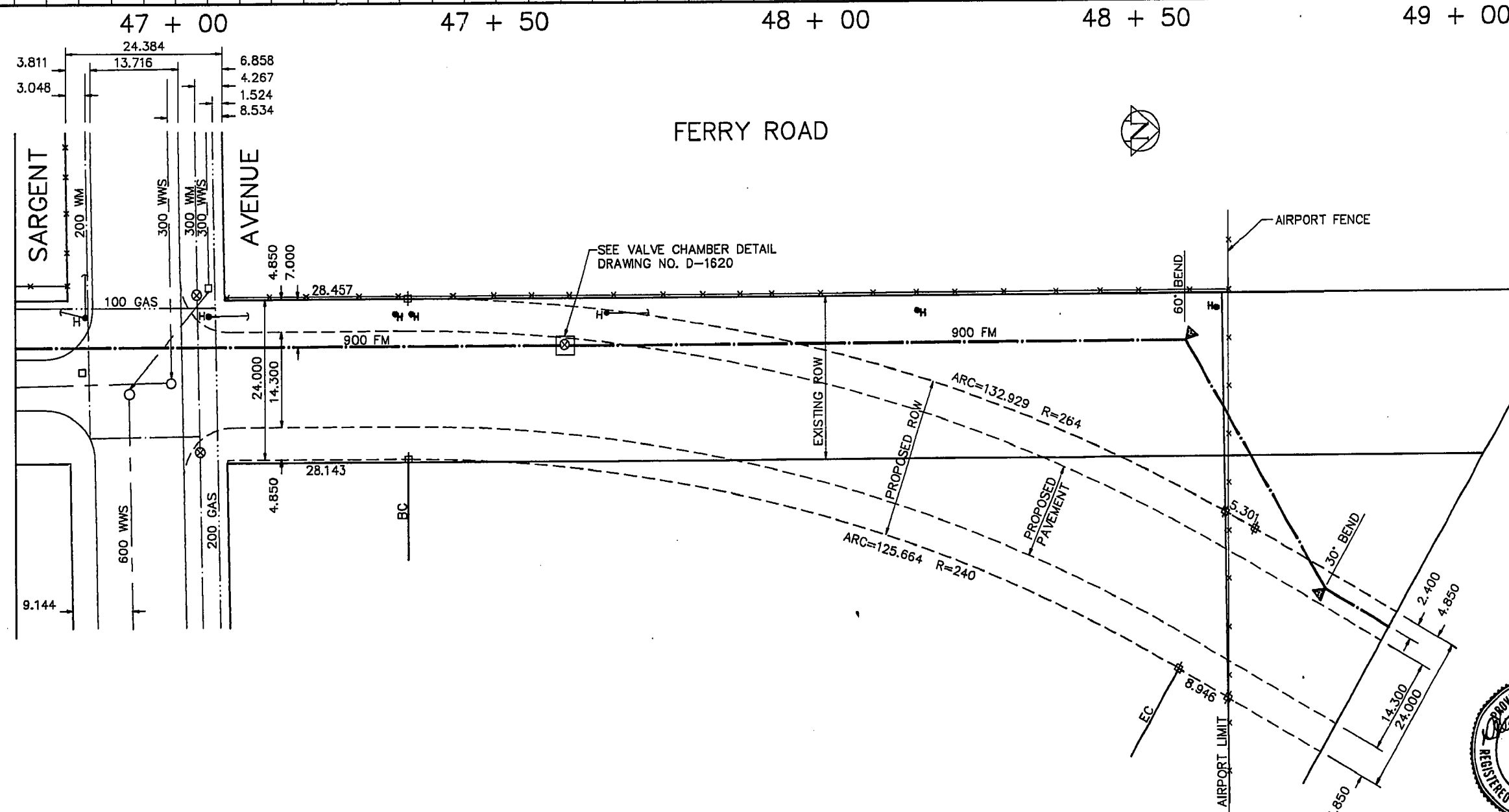
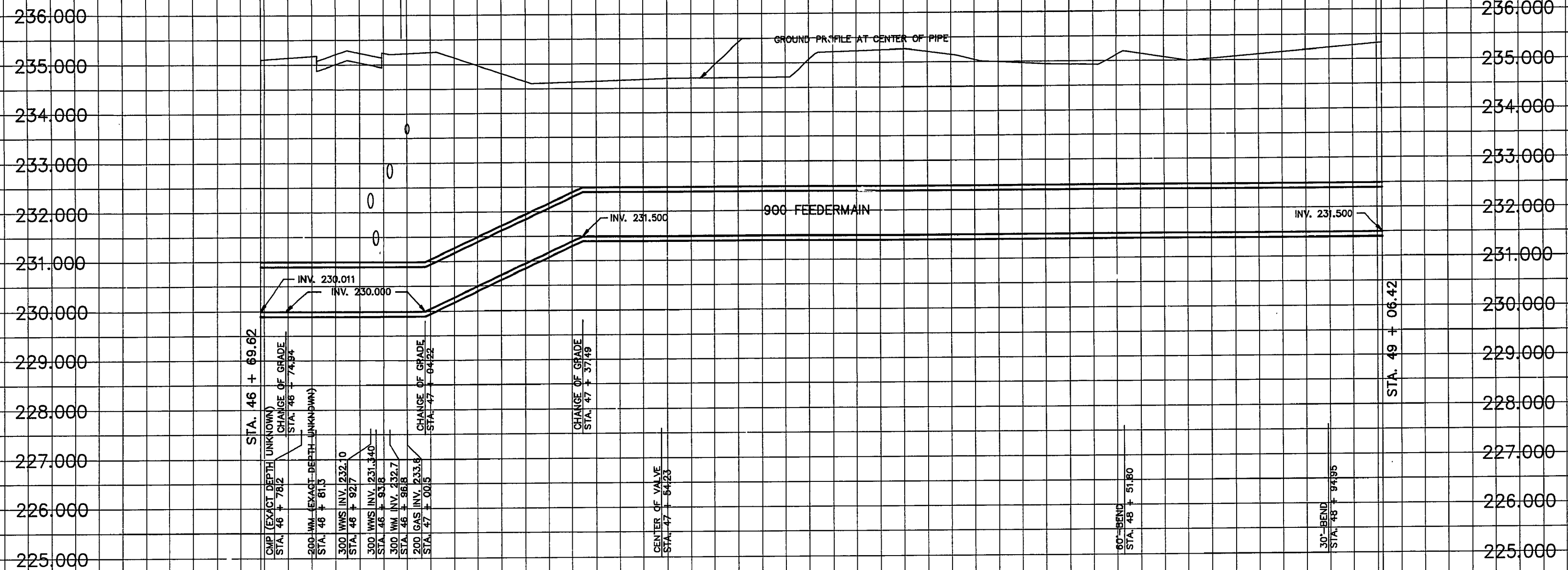
LOCATION APPROVED
 UNDERGROUND STRUCTURES
 SUPV. U/G STRUCTURES COMMITTEE DATE
 NOTE:
 LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE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

NO.	REVISIONS	DATE	BY
2	REVISED TO AS-BUILT	89.04.03	TH
1	REVISED PROFILE OF PIPE & ADDED NEW UTILITIES ON PLAN	88.01.25	REF

The City of Winnipeg
 Works & Operations Division
 Waterworks, Waste & Disposal Department
 DESIGNED BY: RAS,DDM
 CHECKED BY: RAS,DDM
 DRAWN BY: REF, TM
 APPROVED BY: [Signature]
 HOR. SCALE: 1:500
 VERTICAL: 1:50
 DATE: OCTOBER, 1986

ENGINEER'S SEAL
 PROVINCE OF MANITOBA
 R. A. SOROKOWSKI
 REGISTERED PROFESSIONAL ENGINEER
 CONSULTANT DRAWING NO.

THE CITY OF WINNIPEG
 WORKS AND OPERATIONS DIVISION
 WATERWORKS WASTE AND DISPOSAL DEPARTMENT
WEST END FEEDERMAIN
 FERRY RD. - 90 METERS NORTH OF
 ELLICE AVE. TO
 SARGENT AVE.
 STA. 43 + 94.62 TO STA. 46 + 69.62
 CITY DRAWING NUMBER
 SHEET OF
D-1590



2W-534

AS-CONSTRUCTED
 22.7.1986 15.1.1987 20.11.07
 INSPECTION / SURVEY TECHNICAL SERVICES
 WATERWORKS, WASTE & DISPOSAL DEPARTMENT



METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

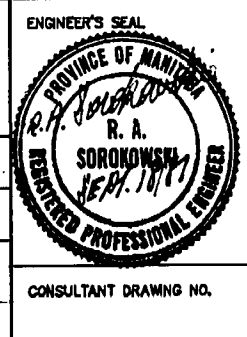
200 WWS	WATERMAIN	200 WWS	SL, HYDRO	150 WWS	WATERMAIN	150 WWS
+	HYDRANT	+	MTS	+	HYDRANT	+
o	VALVE	o	CONCRETE	o	VALVE	o
525 L.D.S.	LAND DRAINAGE SEWER	525 L.D.S.	PROPERTY LINE	300 L.D.S.	LAND DRAINAGE SEWER	300 L.D.S.
375 WWS	WASTEWATER SEWER	375 WWS	SURVEY BAR	250 WWS	WASTEWATER SEWER	250 WWS
o	MANHOLE	o	FENCE	o	MANHOLE	o
o	CATCH BASIN	o	POLE - HYDRO, MTS	o	CATCH BASIN	o
o	CURB INLET	o	RAILWAY SIGN	o	CURB INLET	o
o	JUNCTIONS	o	GUY ANCHOR	o	JUNCTIONS	o
o	CULVERT	o	LIGHT STANDARD	o	CULVERT	o
50 GAS	GAS	50 GAS	TREE	50 GAS	GAS	50 GAS
EXISTING	LEGEND-PLAN	PROPOSED	LEGEND-PLAN	PROPOSED	LEGEND-PROFILE	PROPOSED

LOCATION APPROVED
 UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE
 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.
1	231.500
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100	231.500

The City of Winnipeg Works & Operations Division Waterworks, Waste & Disposal Department	DESIGNED BY RAS,DDM CHECKED BY RAS,DDM DRAWN BY REF, TM APPROVED BY HOR SCALE 1:500 VERTICAL 1:50 DATE OCTOBER, 1986
---	--



THE CITY OF WINNIPEG WORKS AND OPERATIONS DIVISION WATERWORKS WASTE AND DISPOSAL DEPARTMENT	CITY DRAWING NUMBER SHEET OF D-1591
--	---

WEST END FEEDERMAIN
 FERRY RD. - SARGENT AVE. TO
 200 METERS NORTH
 STA. 46 + 69.62 TO STA. 49 + 06.42