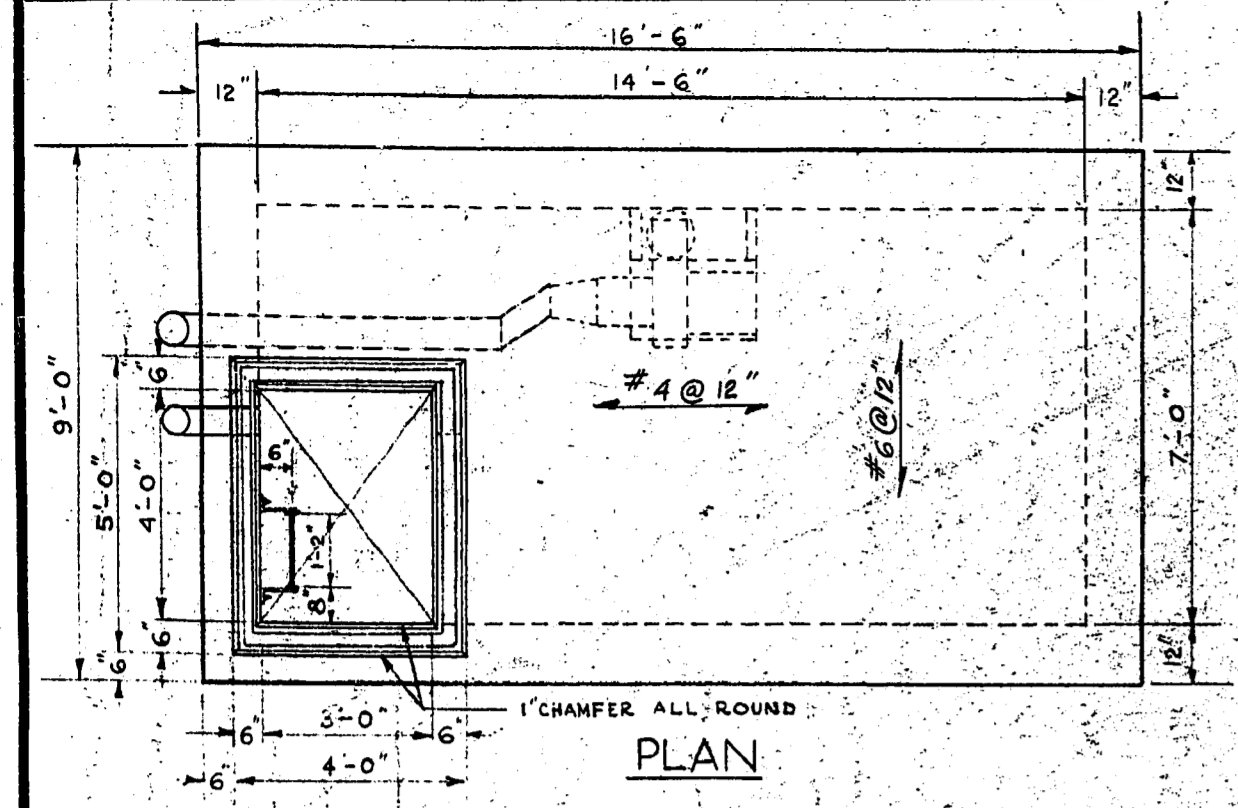
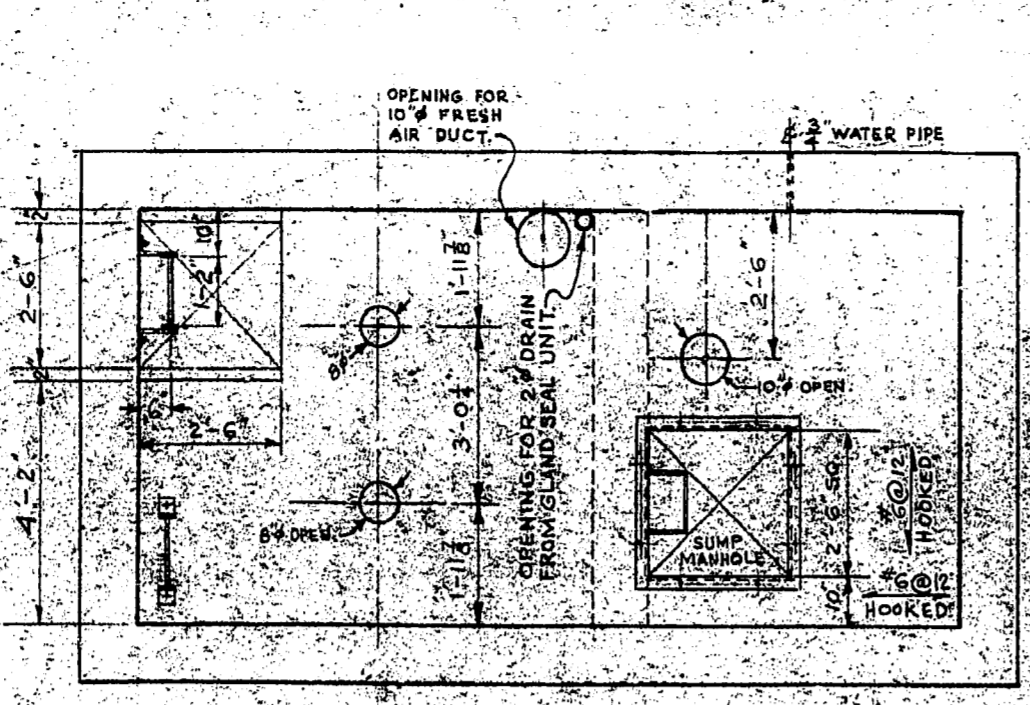


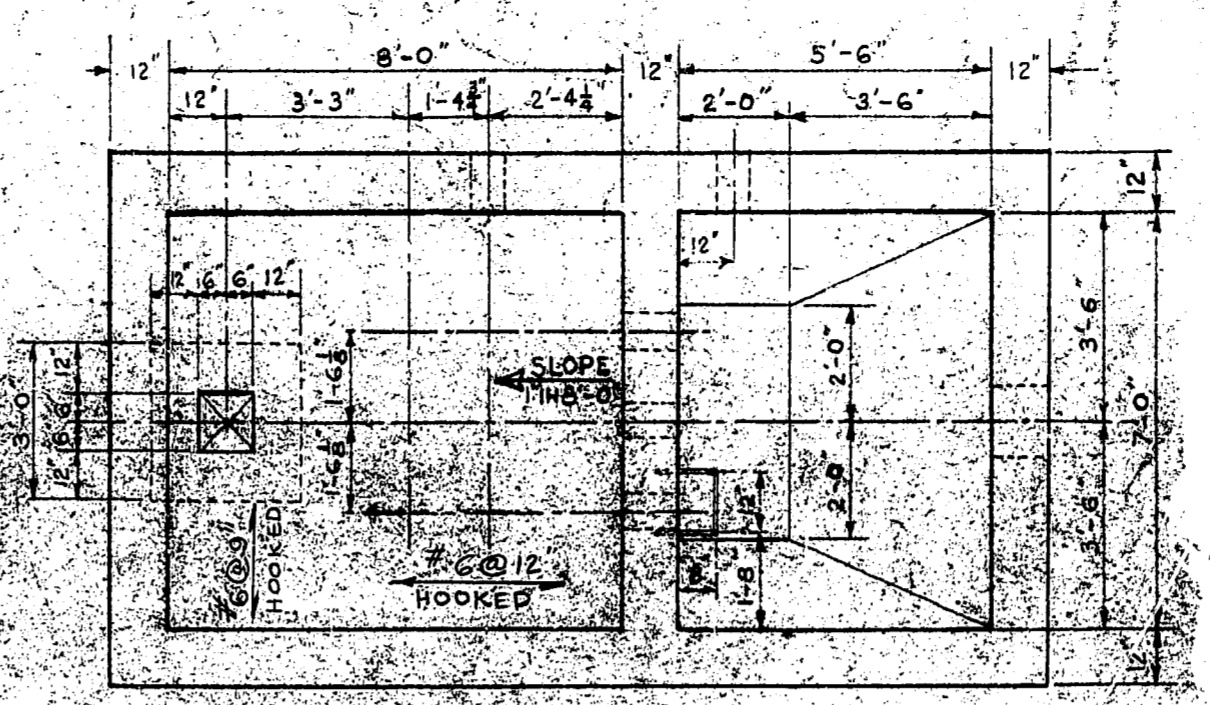
APPENDIX A – HISTORICAL RECORD DRAWINGS



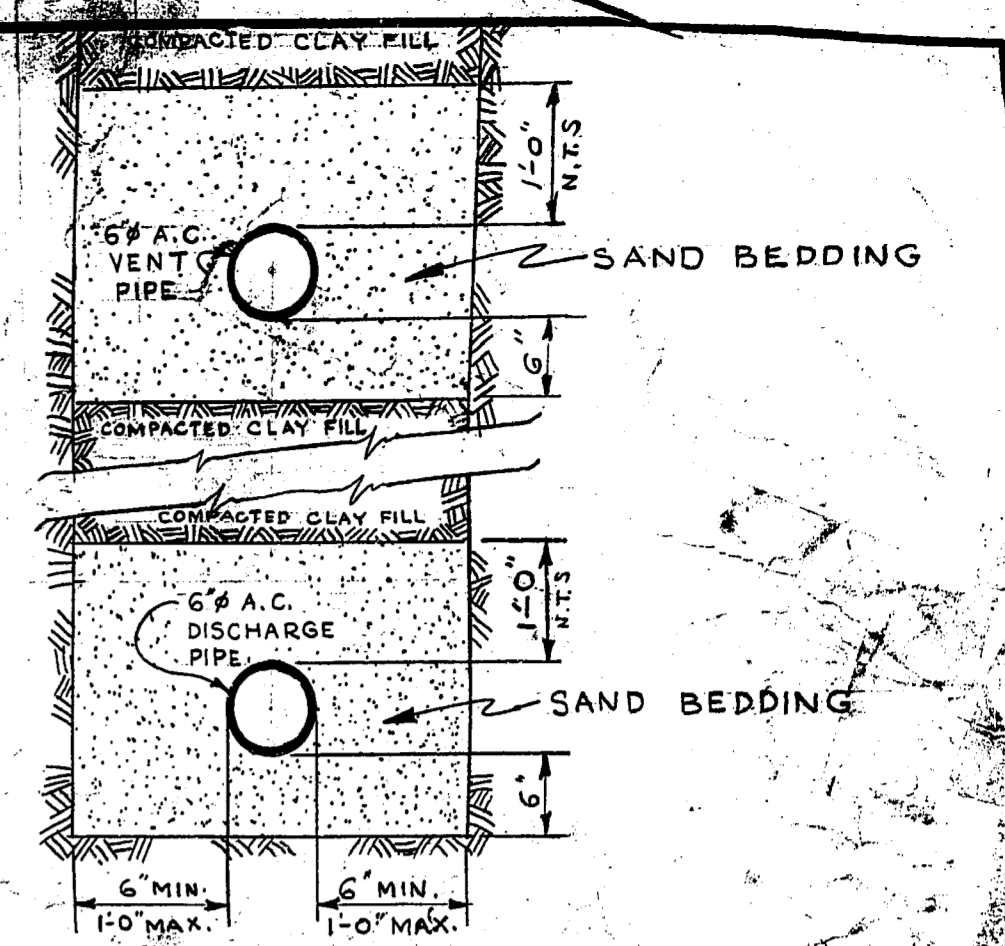
PLAN



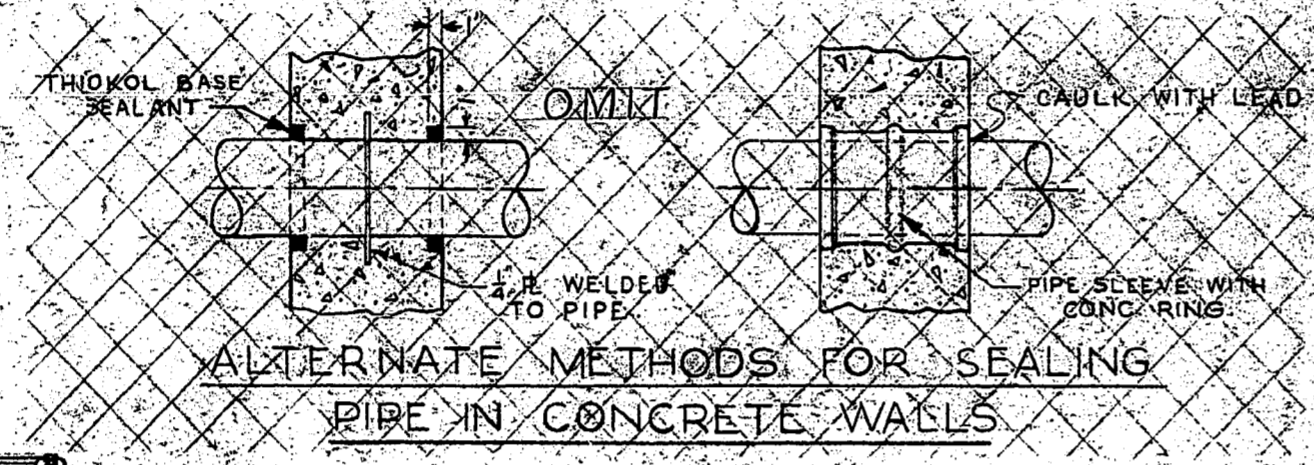
MOTOR RM. FL. PLAN



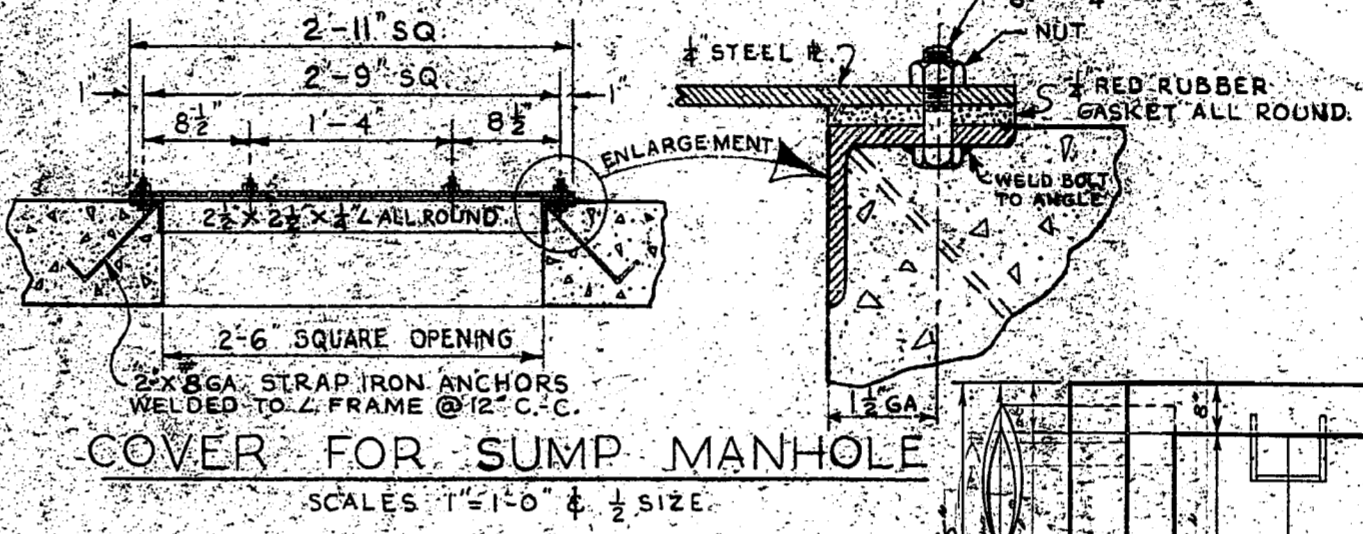
PUMP RM. & SUMP FL. PLAN



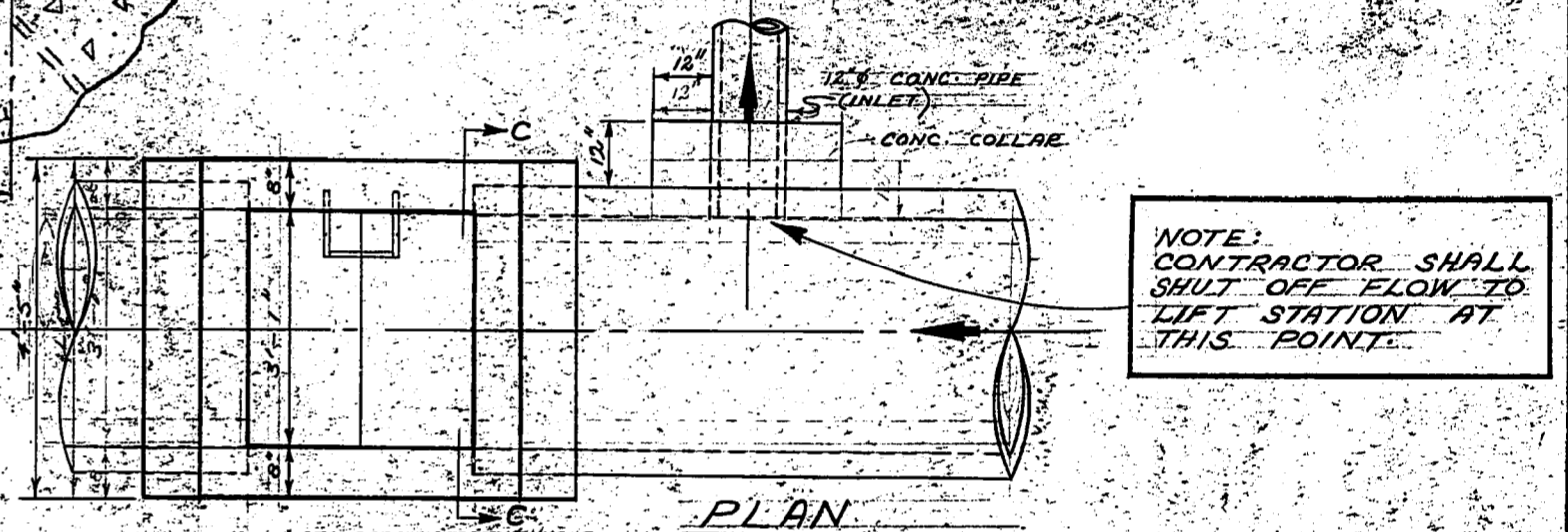
TRENCH BEDDING DETAIL FOR VENT & DISCHARGE PIPING



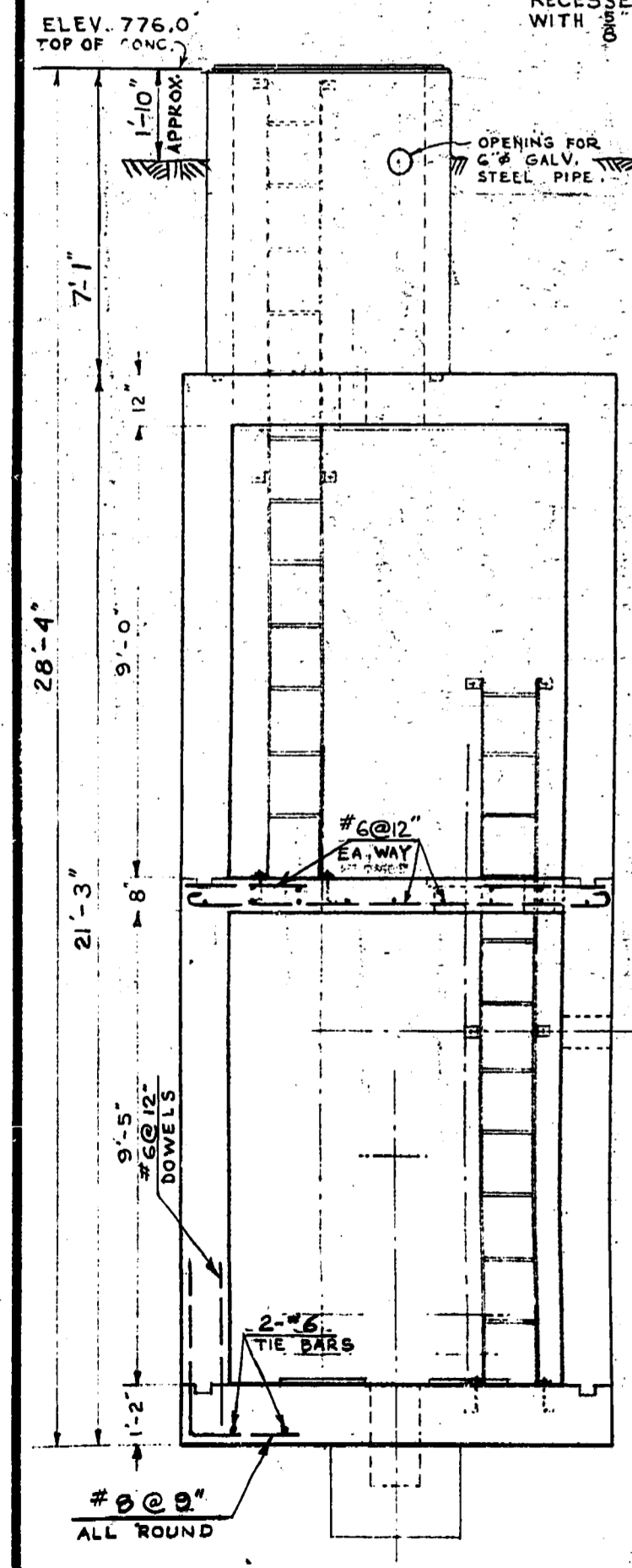
ALTERNATE METHODS FOR SEALING PIPE IN CONCRETE WALLS



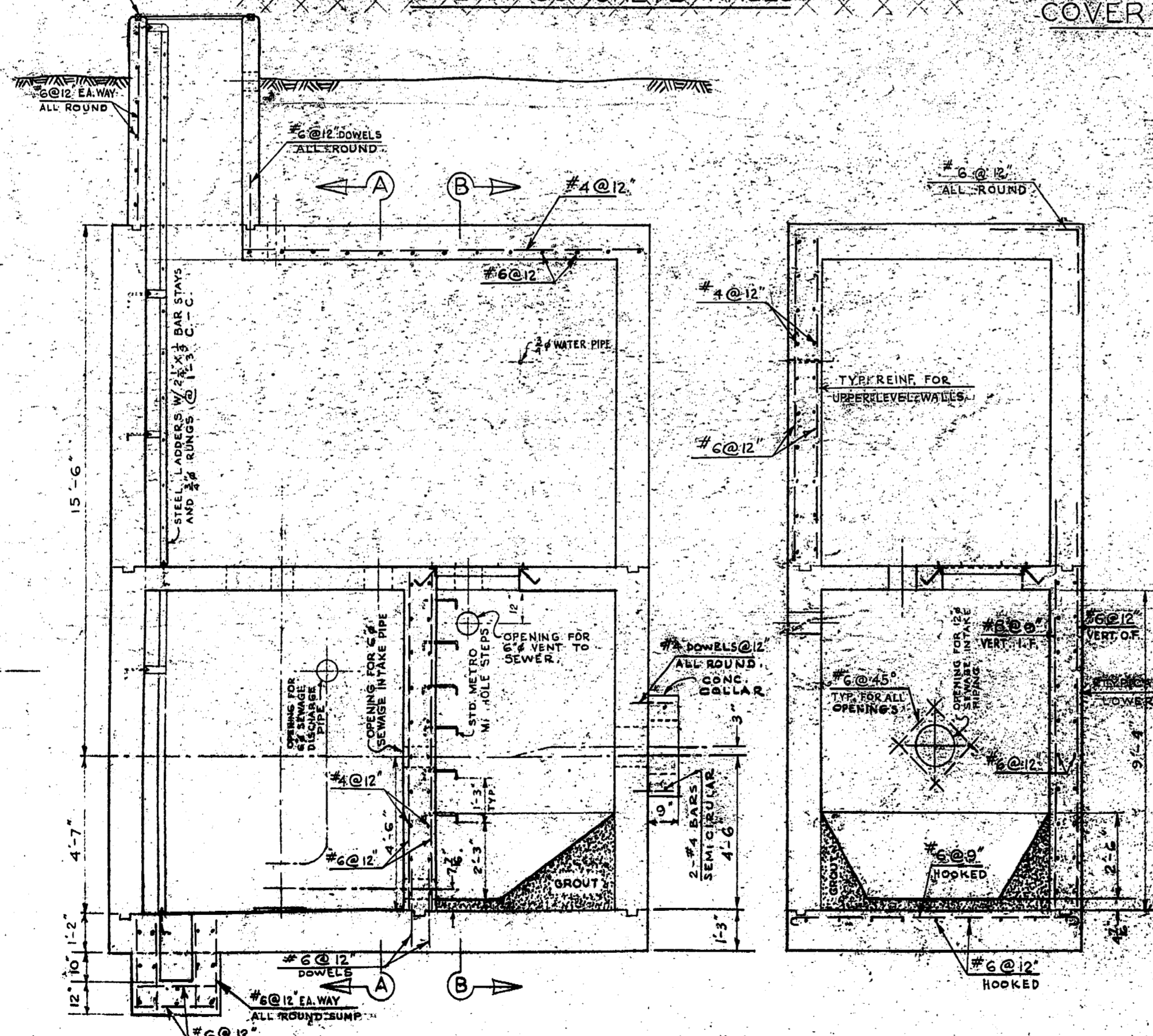
COVER FOR SUMP MANHOLE



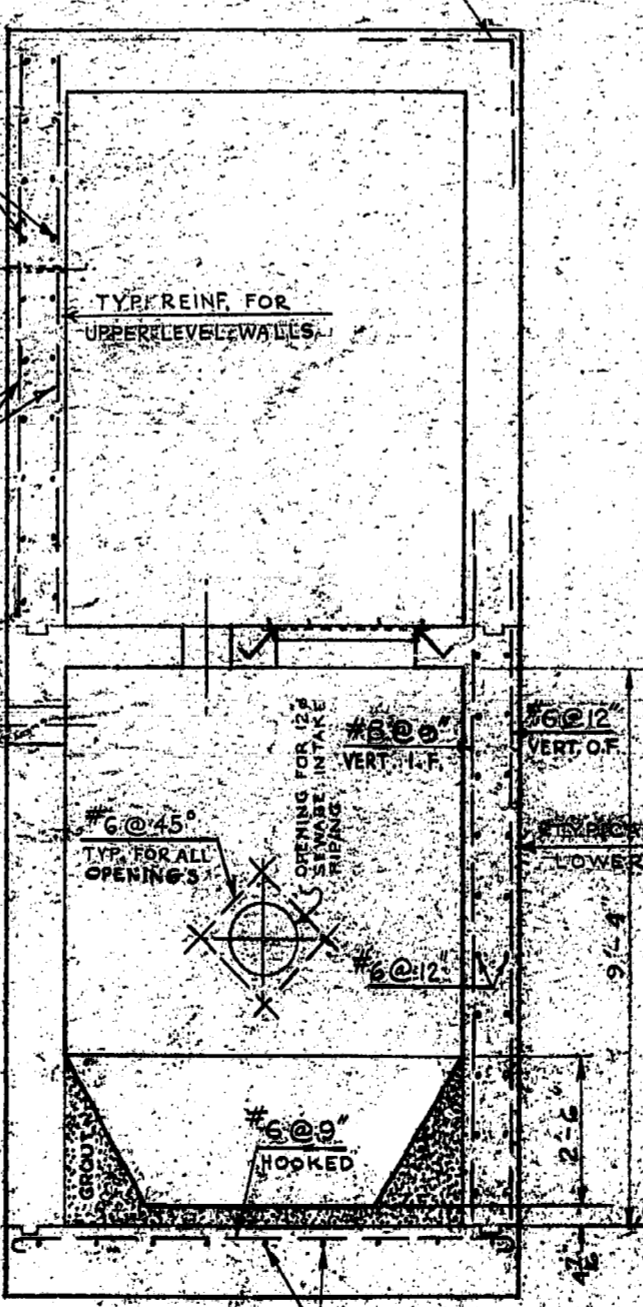
PLAN



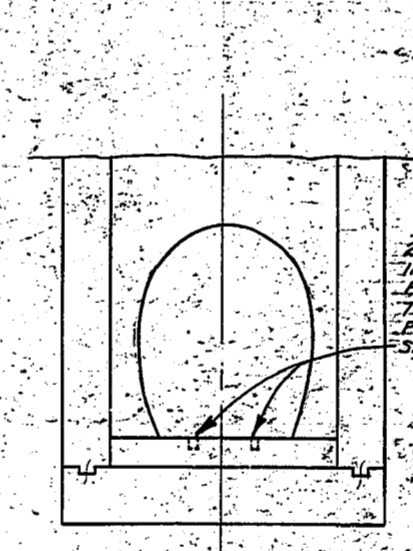
SEC. 'A-A'



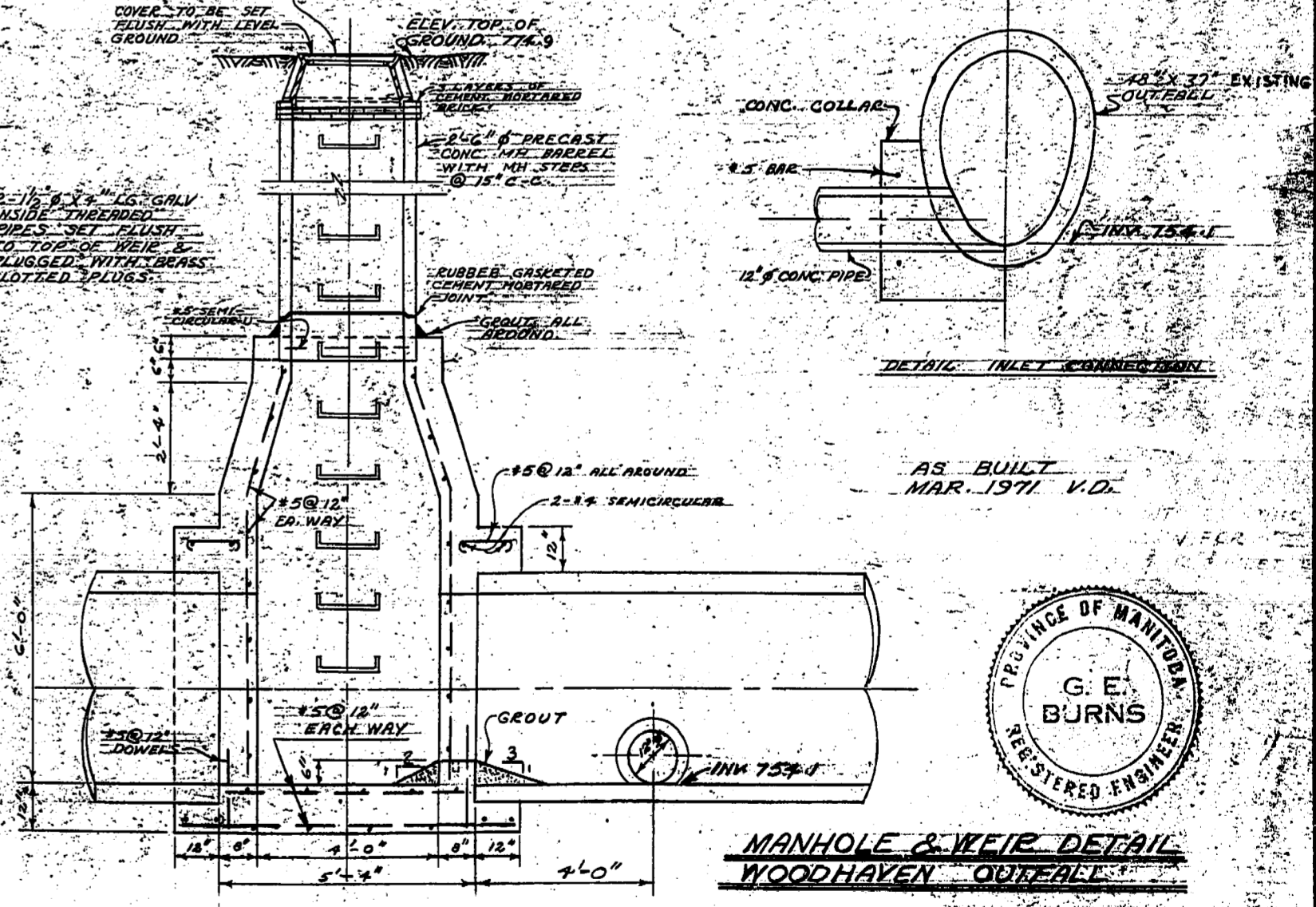
LONGITUDINAL SEC.



SEC. 'B-B'



SECTION C-C



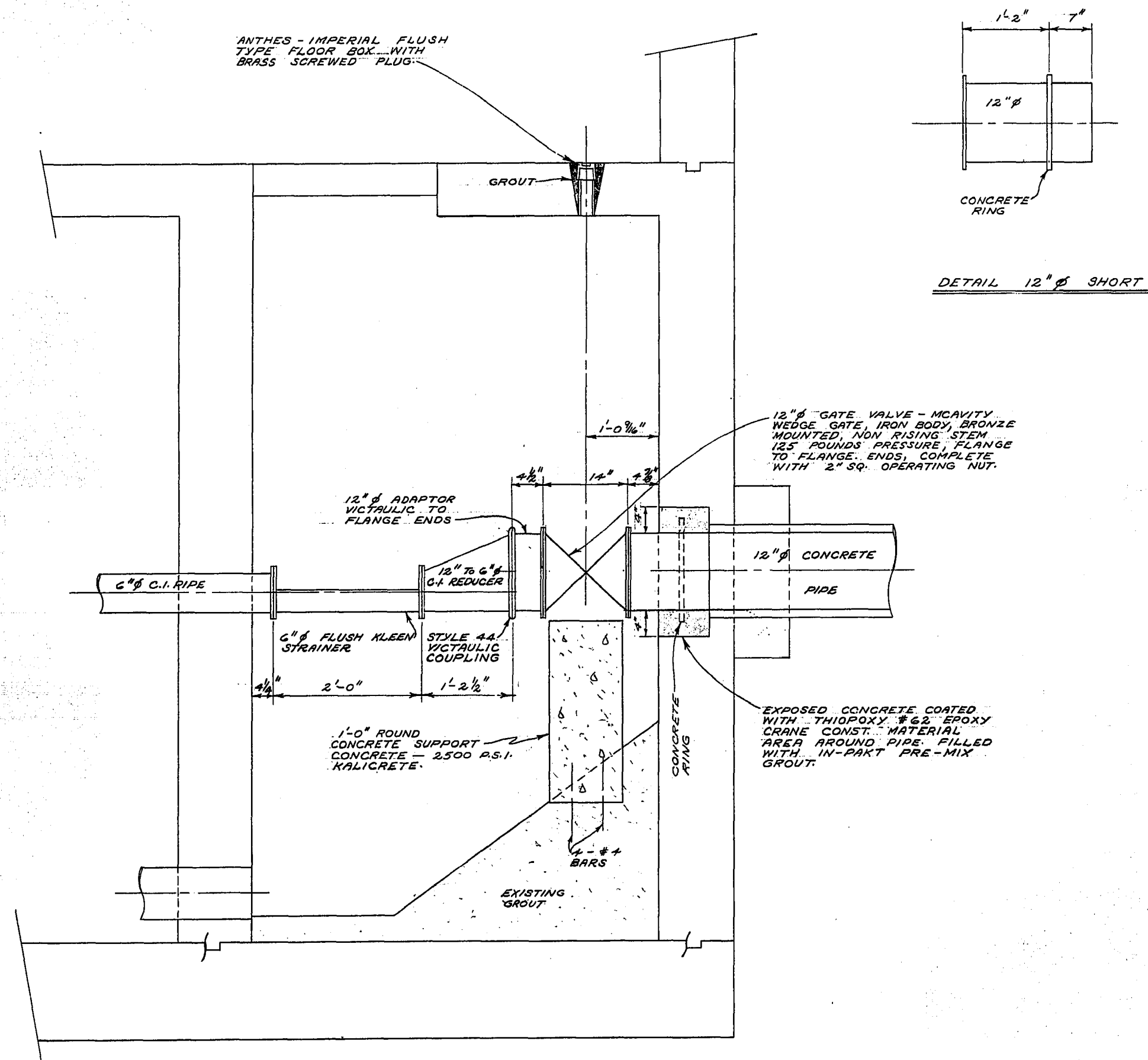
MANHOLE & WEIR DETAIL WOODHAVEN OUTFALL



REVISIONS				THE METROPOLITAN CORPORATION OF GREATER WINNIPEG WATERWORKS & WASTE DISPOSAL DIVISION SEWAGE DISPOSAL BRANCH	
NO.	DESCRIPTION	DATE	BY	APPROVED BY	DRAWING NO.
1					402A
2					
3					
4					
5					
6					
7					
8					

NOTES

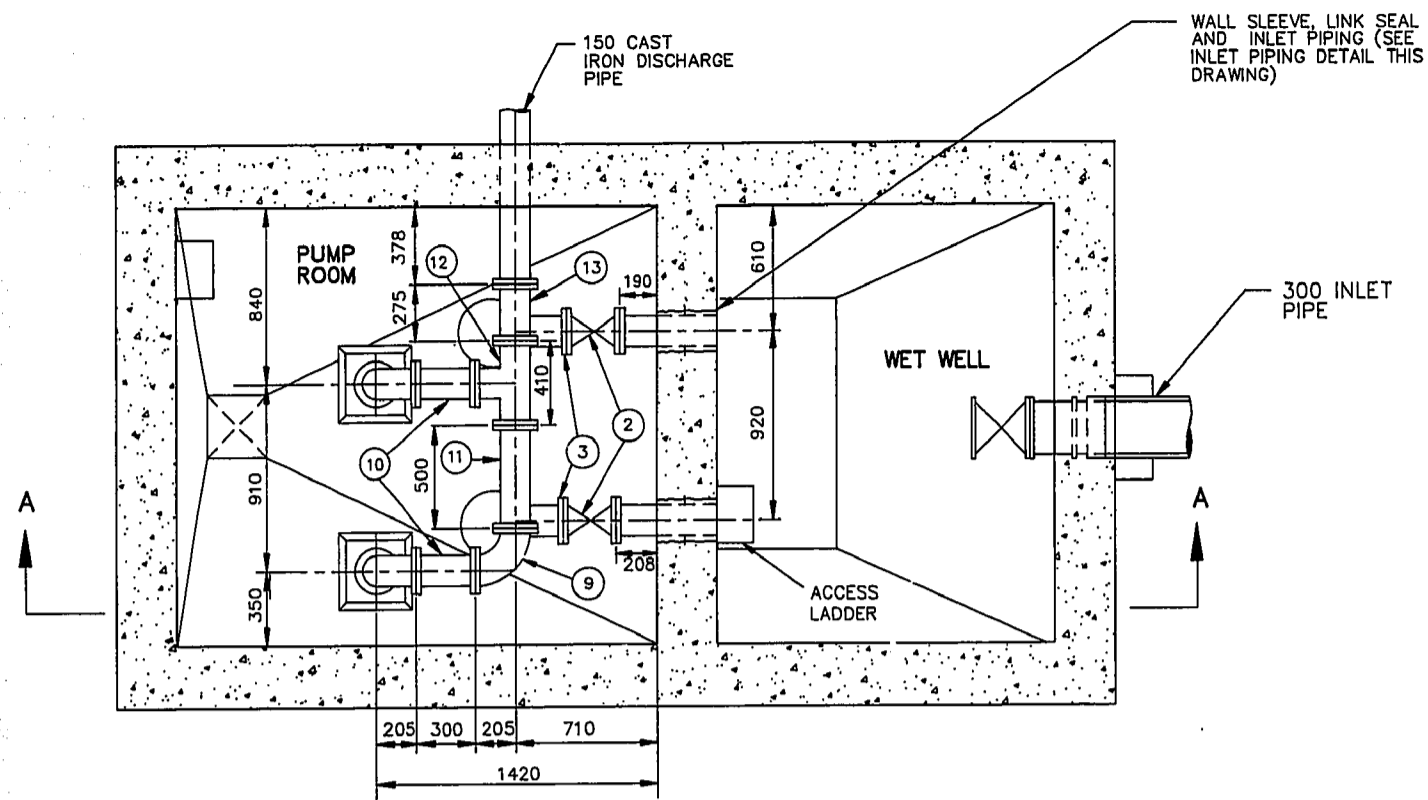
1. FOR DETAILS OF EXISTING LIFT STATION AND SITE PLAN SEE DWG. 402.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BLOCK OFF 12" Ø CONCRETE PIPE AS SHOWN ON PLAN 402A & 402.
3. CONTRACTOR SHALL REMOVE EXISTING 12" Ø SHORT AND INSTALL 12" Ø GATE VALVE SADDLE, 12" Ø SHORT AND FLOOR BOX AS SHOWN ON THIS PLAN.
4. THE CONTRACTOR SHALL HAVE ALL NECESSARY EQUIPMENT AND MATERIAL ON THE SITE PRIOR TO SHUT DOWN OF THE STATION, AND SHALL COMPLETE THE NECESSARY WORK IN AS SHORT A TIME AS POSSIBLE.
5. THE EXISTING STATION MAY BE EXAMINED AT ANY TIME CONVENIENT TO THE STAFF OF THE CORPORATION. WHEN INQUIRING ABOUT EXAMINING THE STATION, THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS WITH MR. C. BACK AT 985-5222.
6. THE CORPORATION WILL PUMP OUT THE SUMP WITH THE EXISTING PUMPS. ANY REMAINING MATERIAL SHALL BE CLEANED OUT BY THE CONTRACTOR.



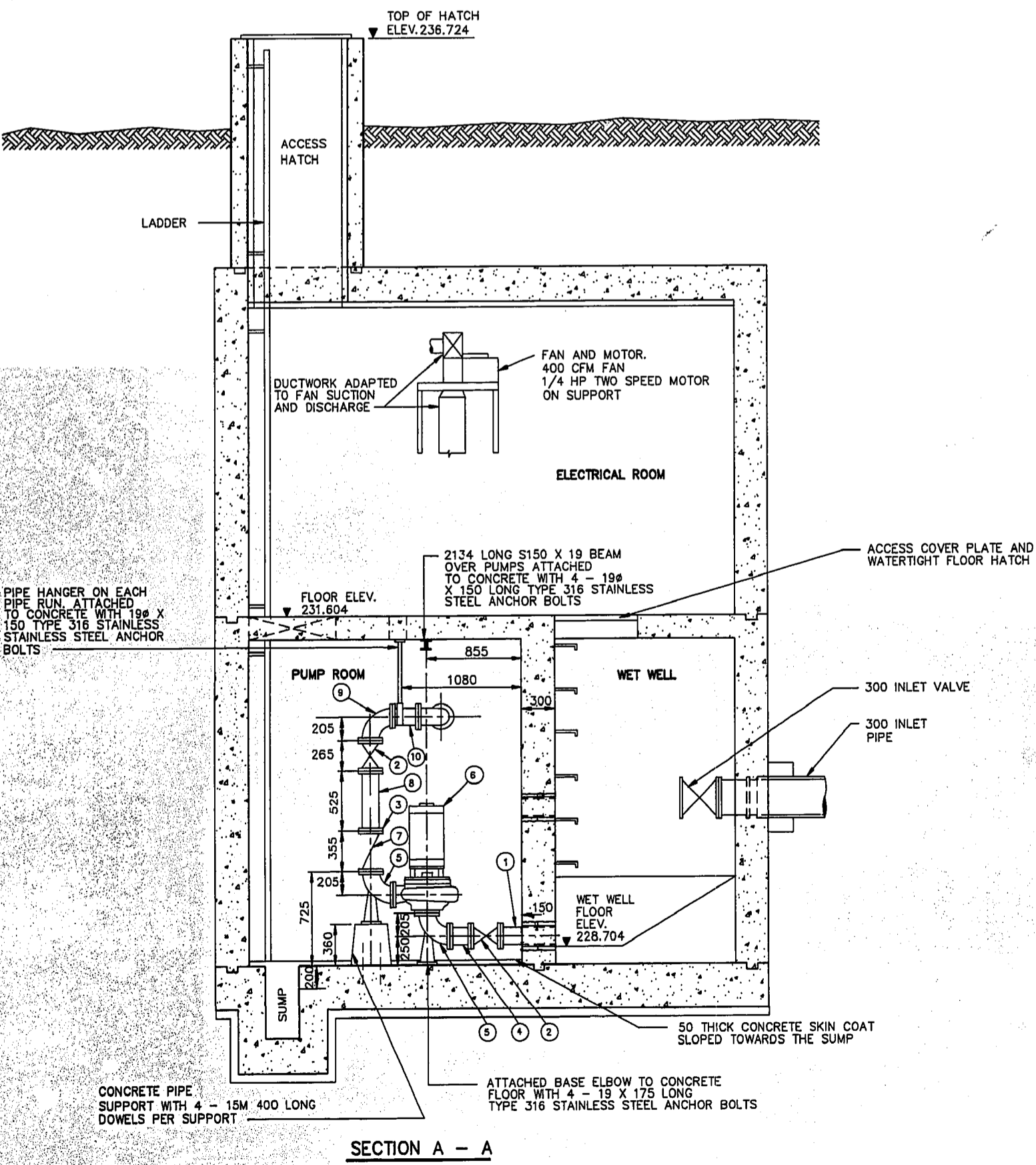
AS BUILT
 JAN. 1972 V.D.
[Signature]

MICROFILMED 1972

THE METROPOLITAN CORPORATION OF GREATER WINNIPEG WATERWORKS & WASTE DISPOSAL DIVISION A. PENMAN - DIRECTOR	SEWAGE DISPOSAL	DEPT.	DES. V.D. <i>[Signature]</i>	SCALE
	WOODHAVEN LIFT STATION		CH'W'D. <i>[Signature]</i>	1" = 1'-0"
	VALVE INSTALLATION		DATE: June 1972	DRAWING NO.
			APPROVED <i>[Signature]</i>	716



PLAN VIEW - PUMP ROOM AND WET WELL
SCALE: 1:25

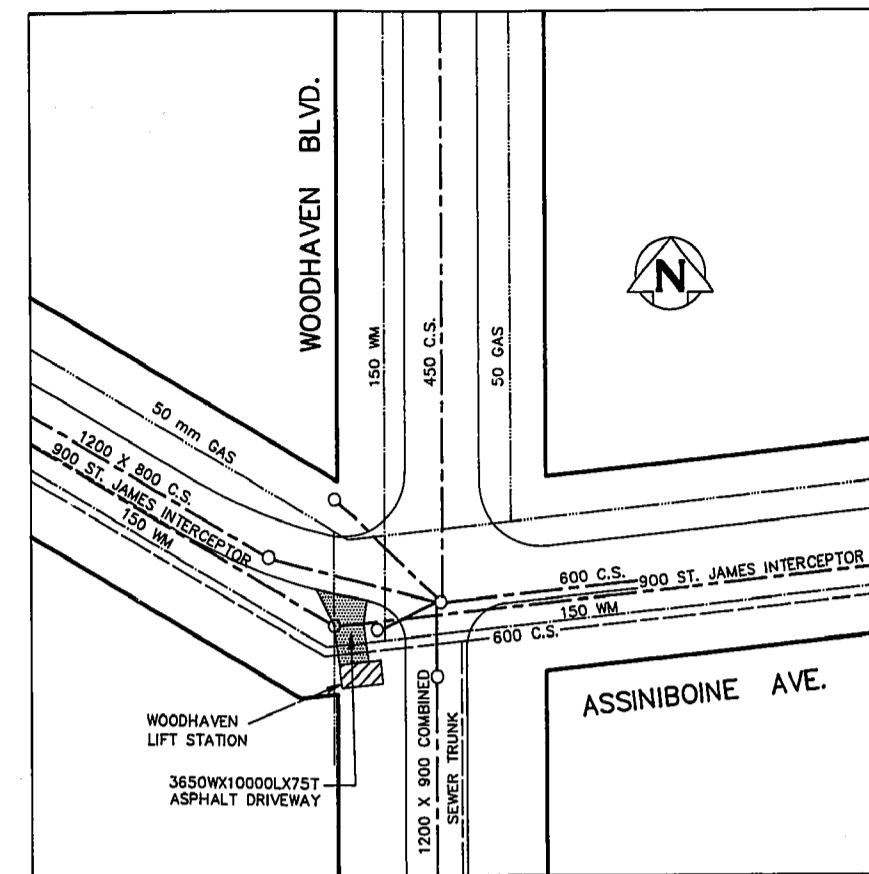


SECTION A - A
SCALE: 1:30

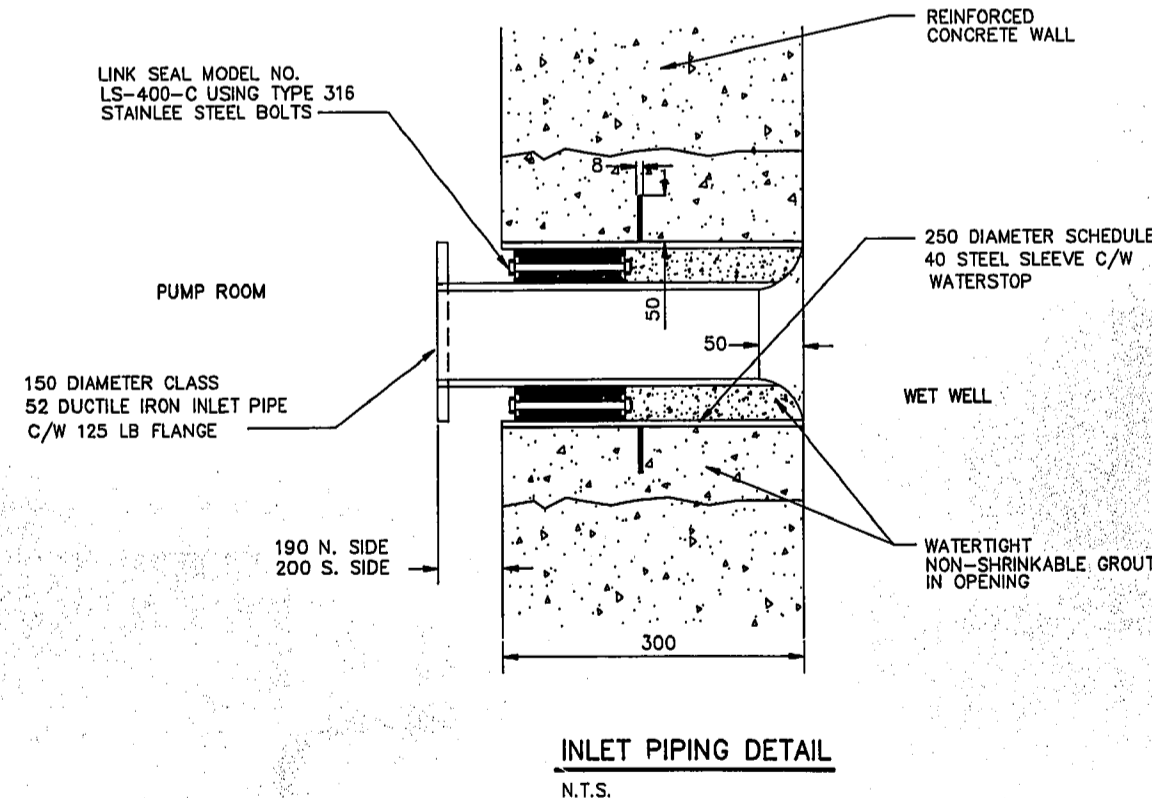
LIST OF MATERIALS				
ITEM	DESCRIPTION	ENDS	LENGTH	QUANTITY
1	150 CLASS 52 DUCTILE IRON INLET PIPE	FLANGED X PLAIN	450	2
2	150 CAST IRON 5861 MUELLER GATE VALVE (OS&Y, RISING STEM)	FLANGED	265	4
3	150 SERIES 400 UNI-FLANGE BOLT ON FLANGE	-		6
4	150 SCHEDULE 40 STEEL PIPE	FLANGED X PLAIN	170 S. SIDE 185 N. SIDE	2
5	150-90° CAST IRON BASE ELBOW	FLANGED	205	4
6	CORNELL 6NHDL-900 CLOSE COUPLED CENTRIFUGAL PUMP	FLANGED	AS SHOWN	2
7	150 CAST IRON H.D.L. BALL CHECK VALVE			
8	150 SCHEDULE 40 STEEL PIPE	PLAIN	525	2
9	150-90° CAST IRON ELBOW	FLANGED	205	3
10	150 SCHEDULE 40 STEEL PIPE	FLANGED	300	2
11	150 SCHEDULE 40 STEEL PIPE	FLANGED	500	1
12	150X150X150 CAST IRON TEE	FLANGED	205X205X205	1
13	150 SCHEDULE 40 STEEL PIPE	FLANGED	275	1

NOTES:

- LENGTHS SHOWN FOR PIPING ARE FACE TO FACE DIMENSIONS AND DO NOT INCLUDE GASKET THICKNESS
- GASKETS ARE 3mm THICK CLOTH INSERTED, FULL FACED RUBBER
- ALL NUTS AND BOLTS ARE TYPE 316 STAINLESS STEEL
- ALL FITTINGS CONFORM TO AWWA C110
- ACCESS HATCH AND CEILING OF ELECTRICAL ROOM INSULATED WITH 1210 AND COVERED WITH 12MM. PLYWOOD
- INSTALLED NEW HOIST OVER PUMPS
- ELECTRICAL UPGRADE, SEE DWG. 1391



SITE PLAN
SCALE: 1:500



INLET PIPING DETAIL
N.T.S.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

AS-CONSTRUCTED
INSPECTION / TECHNICAL SERVICES
DATE
WATERWORKS, WASTE & DISPOSAL DEPARTMENT

B.M. ELEV.				
1)	AS-CONSTRUCTED	09 15	MBD	
NO.	REVISIONS	DATE	BY	DATE
		OCTOBER 25, 1991		DECEMBER 06, 1991

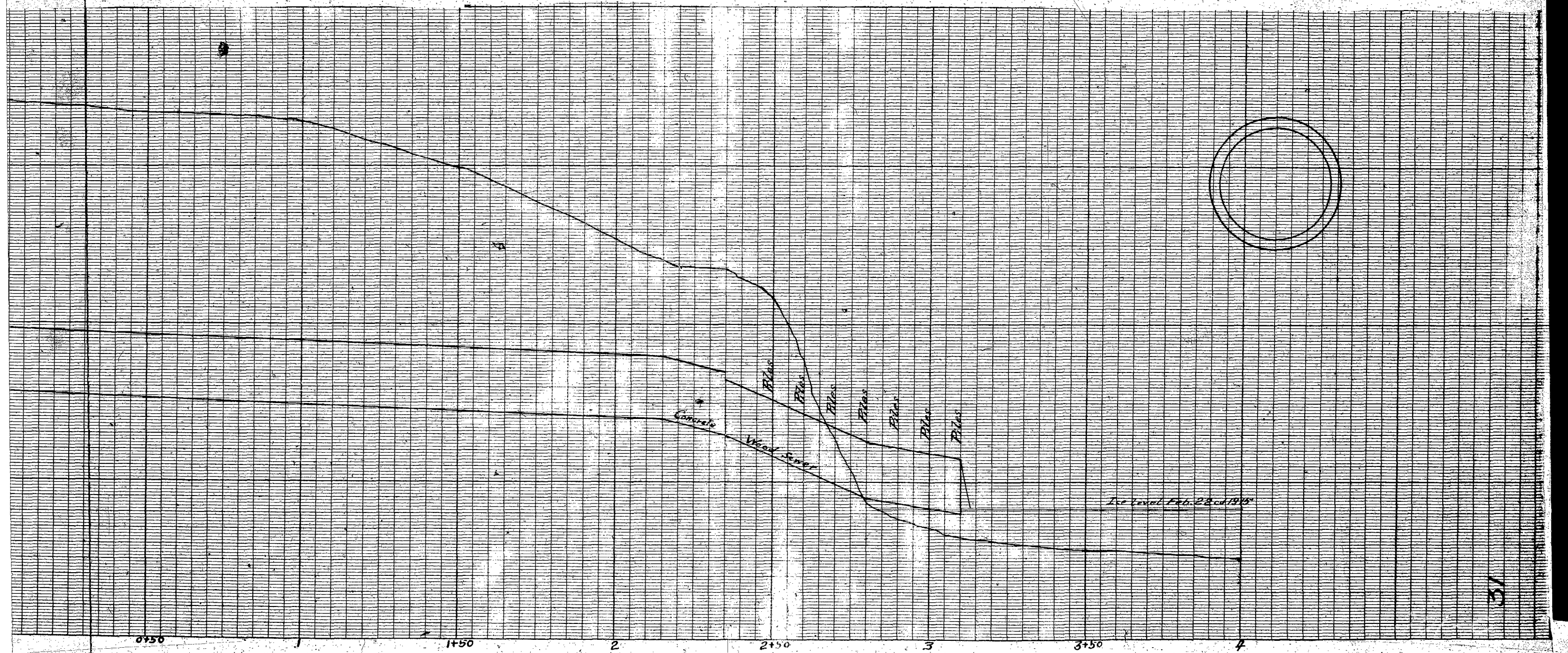
ENGINEER'S SEAL
R.M. GIRLING
REGISTERED ENGINEER

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

WOODHAVEN LIFT STATION
UPGRADING
PLAN AND SECTIONS

SHEET 1 OF 1
CITY DRAWING NUMBER
1335

PLOT DATE: SEPTEMBER 16, 1993



ASSINIBOIA COUNTY

Sewer of Lane
South of Woodburn Street From
Assiniboia Ave. to River

Course Woodburn
Street Lane
5 1/2 Miles from River

17.11

18.1

100.00

90.00

80.00

70.00

0

0+50

1+50

2

2+50

3

Scale:
May 20th - 114
Nov 4th - 114

Engineers Office
Feb 1915

Concrete

Wood Sewer

Flue

Flue

Flue

Flue

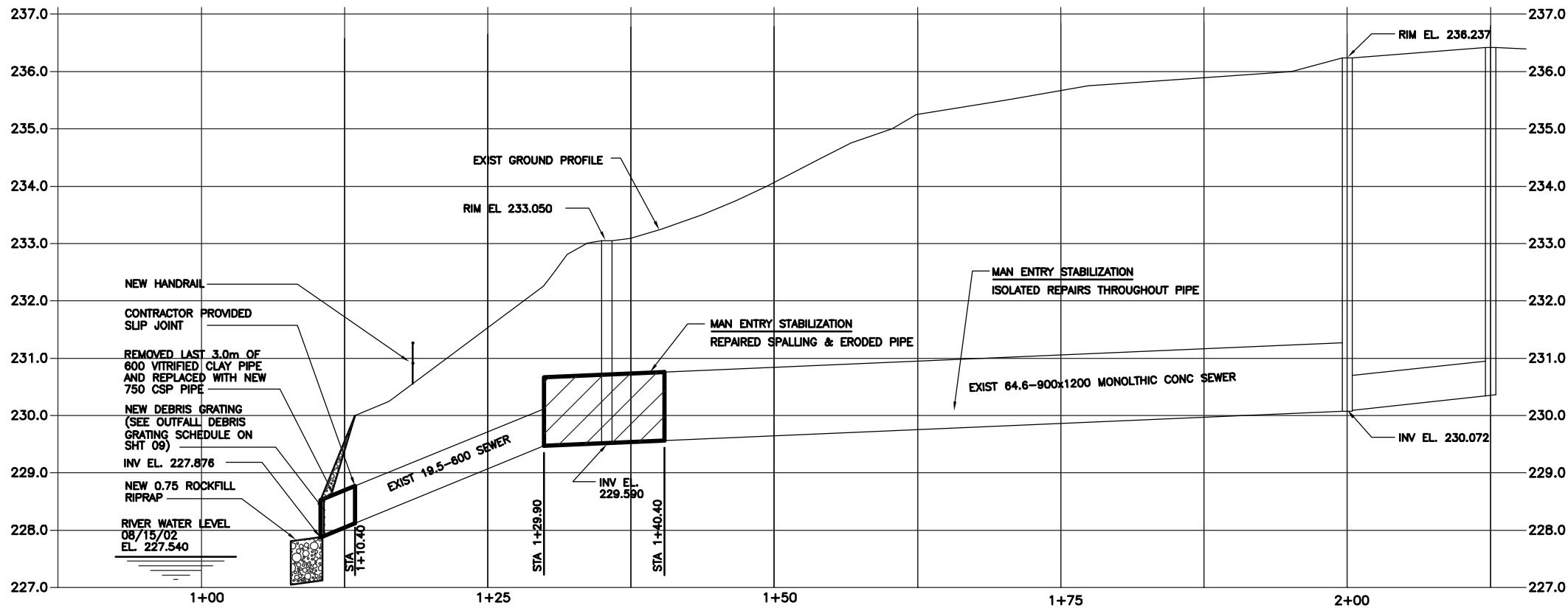
Flue

Flue

Flue

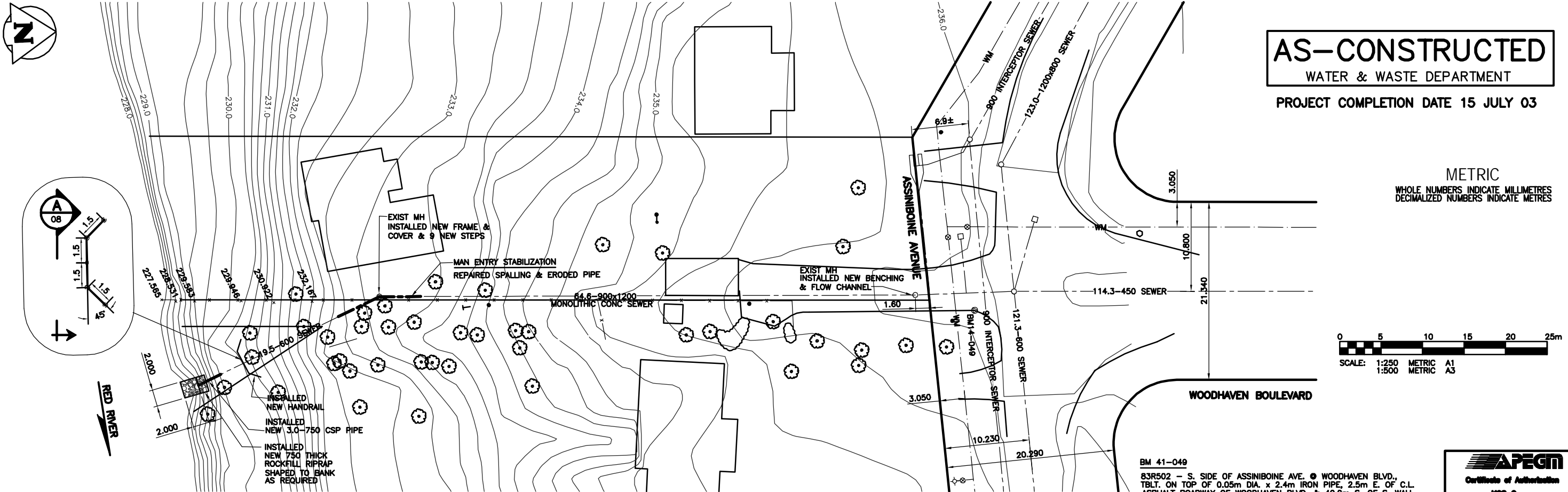
Flue

Flue



NOTE:
 1. STA 2+00 IS CENTER LINE OF EXIST MH
 2. BASE LINE IS CENTER LINE OF SEWER

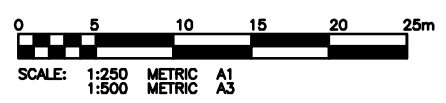
NOTE:
 ELEVATIONS FOLLOWED BY (AB) ARE ELEVATIONS ESTABLISHED FROM THE CITY OF WINNIPEG RECORD DRAWINGS.



AS-CONSTRUCTED
 WATER & WASTE DEPARTMENT

PROJECT COMPLETION DATE 15 JULY 03

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES



WOODHAVEN BOULEVARD OUTFALL AS-29

BM 41-049
 83R502 - S. SIDE OF ASSINIBOINE AVE. @ WOODHAVEN BLVD.,
 TBLT. ON TOP OF 0.05m DIA. x 2.4m IRON PIPE, 2.5m E. OF C.L.
 ASPHALT ROADWAY OF WOODHAVEN BLVD. & 40.9m S. OF S. WALL
 NO. 108 WOODHAVEN BLVD., OR 22.0m E. & 3.4m N. OF DEFLECTION
 BETWEEN LOTS 1 & 2, BLK 5, PL. 2151



150 WM	WATERMAIN	150 WM	HYDRO				
⊕	HYDRANT	⊕	M.T.S.				
⊙	VALVE	⊙	PROPERTY LINE				
300 LBS	LAND DRAINAGE SEWER	300 LBS	SURVEY BAR				
250 WWS	WASTE WATER SEWER	250 WWS	LIGHT STANDARD				
○	MANHOLE	●	HYDRO POLE				
□	CATCH BASIN	■	GUY WIRE				
▽	CURB INLET	▽	SIGN				
+	JUNCTIONS	+	BUSH LINE				
—	CULVERT	—	FENCE				
—	GAS	—	ELEVATION	(32.231)			
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE
							PROPOSED

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. 41-049	ELEV. 236.177
DESIGNED BY	D.G.G.
CHECKED BY	R.J.H.
DRAWN BY	D.W.
APPROVED BY	
HOR. SCALE:	1:250
VERTICAL:	1:50
DATE	SEPT 02, 2002
NO.	REVISIONS
1	AS BUILT 05/01/04 R.J.H.
0	ISSUED FOR TENDER 19/11/02 R.J.H.
A	ISSUED FOR REVIEW 30/09/02 R.J.H.

KGS GROUP
 CONSULTING ENGINEERS & PROJECT MANAGERS
 WINNIPEG (204) 896-1208
 THUNDER BAY (807) 348-2233

DESIGNED BY: D.G.G.
 CHECKED BY: R.J.H.
 DRAWN BY: D.W.
 APPROVED BY: [Signature]
 HOR. SCALE: 1:250
 VERTICAL: 1:50
 DATE: SEPT 02, 2002

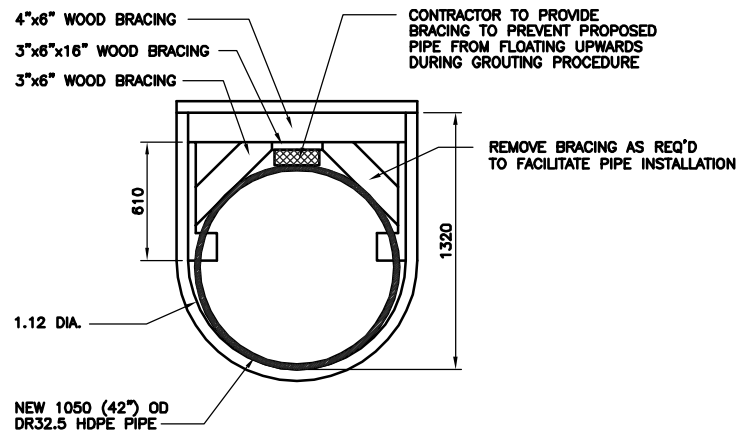
ENGINEER'S SEAL
 ORIGINAL SIGNED BY
 R.J. HOUSTON
 12 JUNE 06

THE CITY OF WINNIPEG
 WATER & WASTE DEPARTMENT

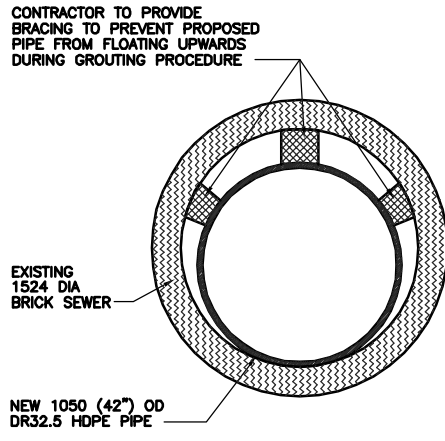
Winnipeg

OUTFALL REPAIRS
WOODHAVEN BOULEVARD
OUTFALL (AS-29)

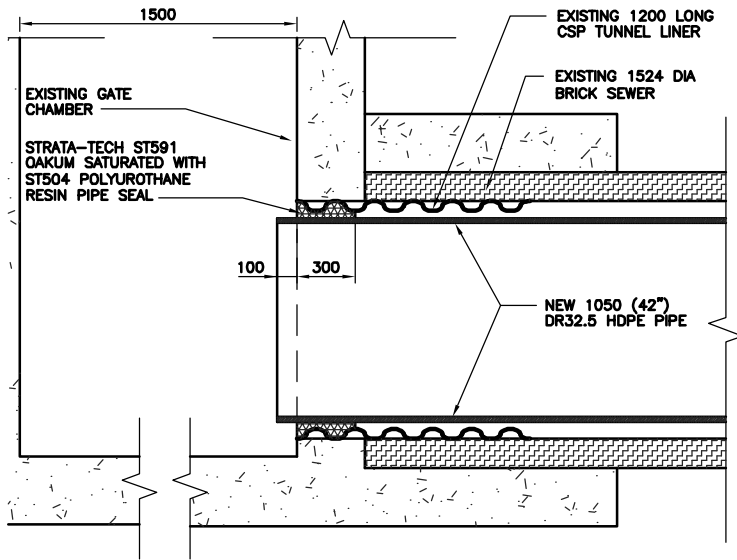
SHEET OF
06 09
 CAD FILE DRAWING NUMBER
02-107-04_06Rev1
 CITY DRAWING NUMBER
LD-2725



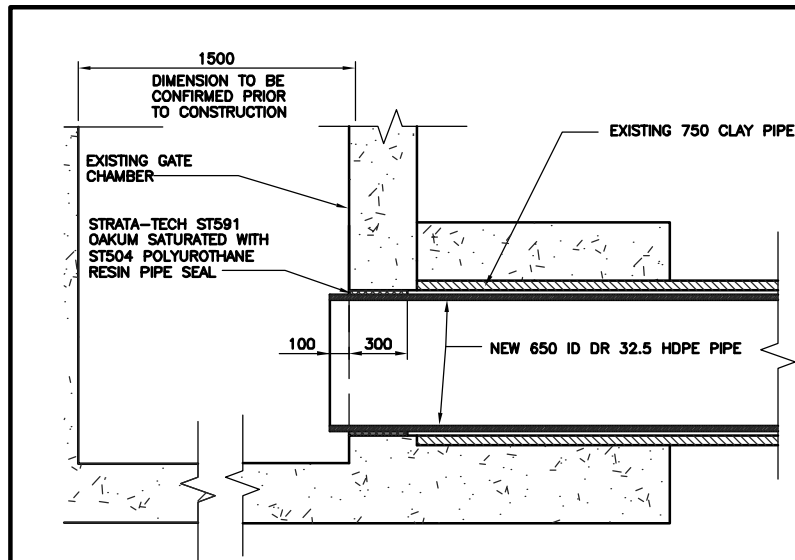
B SECTION
01 SCALE: 1:20



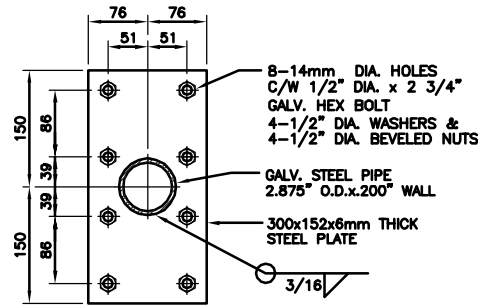
C SECTION
01 SCALE: 1:20



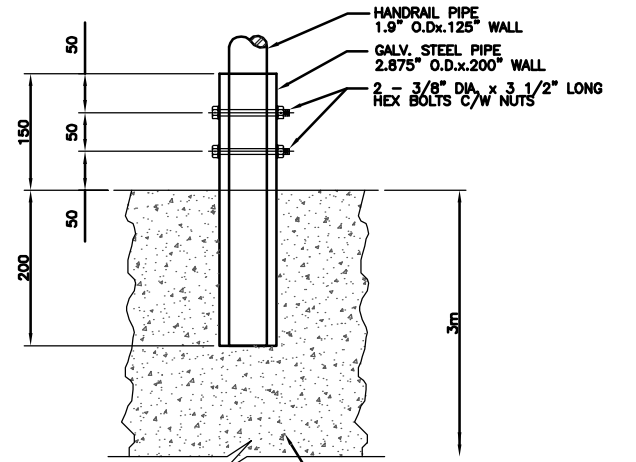
1 DETAIL
01 SCALE: 1:20



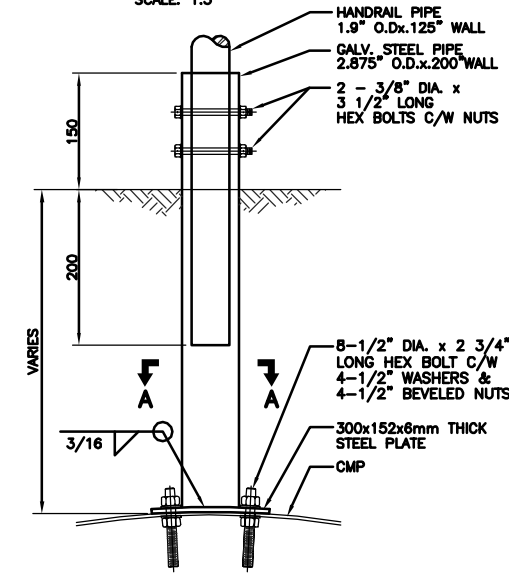
1 DETAIL
04 SCALE: 1:20



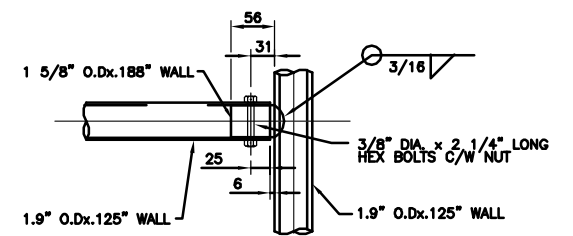
SECTION A-A
SCALE: 1:5



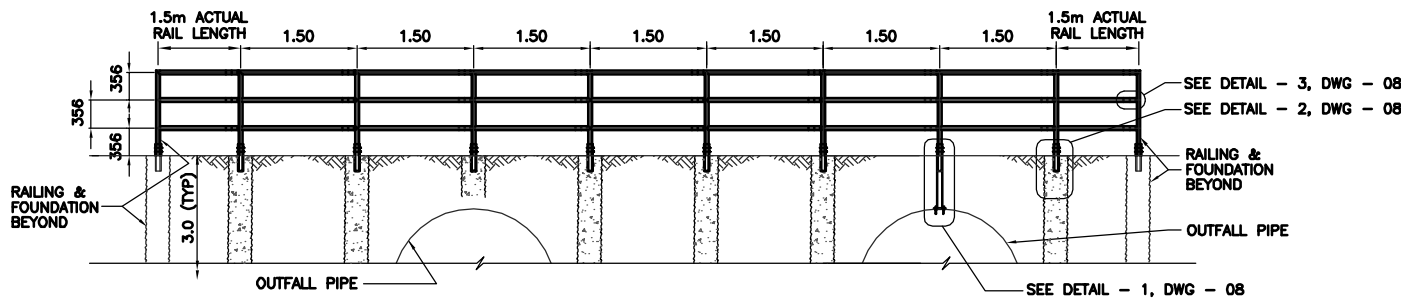
2 DETAIL
SCALE: 1:5



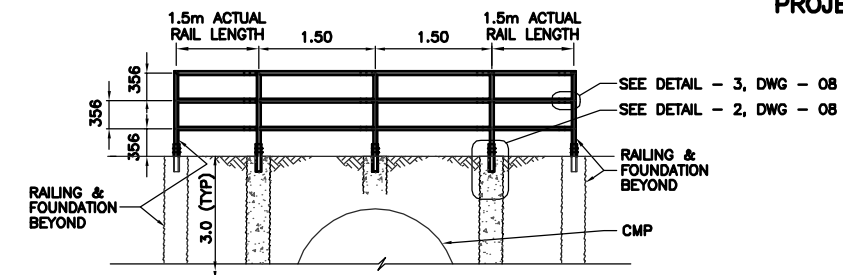
1 DETAIL
SCALE: 1:5



3 DETAIL
SCALE: 1:5



A SECTION
05 SCALE: 1:20



A SECTION
06 SCALE: 1:20

AS-CONSTRUCTED
WATER & WASTE DEPARTMENT

PROJECT COMPLETION DATE 15 JULY 03

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

APEGM
Certificate of Authorization
KGS Group
No. 246 Expiry: April 30, 2007

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES DATE COMMITTEE

NOTE:
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B.M.	64-008		
ELEV.	231.949		
NO.	REVISIONS	DATE	BY
1	AS BUILT	05/01/04	R.J.H.
0	ISSUED FOR TENDER	19/11/02	R.J.H.
A	ISSUED FOR REVIEW	30/09/02	R.J.H.

KGS GROUP CONSULTING ENGINEERS & PROJECT MANAGERS
WINNIPEG (204) 896-1208
THUNDER BAY (807) 348-2233

DESIGNED BY D.G.G. CHECKED BY R.J.H.
DRAWN BY D.W. APPROVED BY

HOR. SCALE: AS NOTED
VERTICAL: SEP 02, 2002

RELEASED FOR CONSTRUCTION: DATE

ENGINEER'S SEAL

ORIGINAL SIGNED BY R.J. HOUSTON
12 JUNE 06

CONSULTANT DRAWING NO. 02-107-04_08Rev1

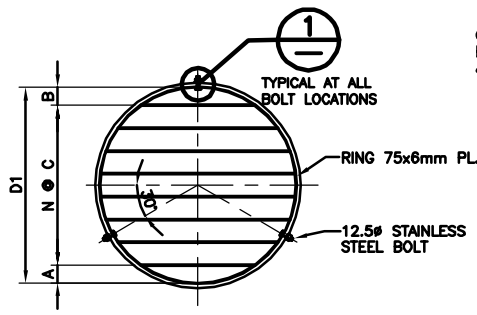
THE CITY OF WINNIPEG
WATER & WASTE DEPARTMENT

Winnipeg

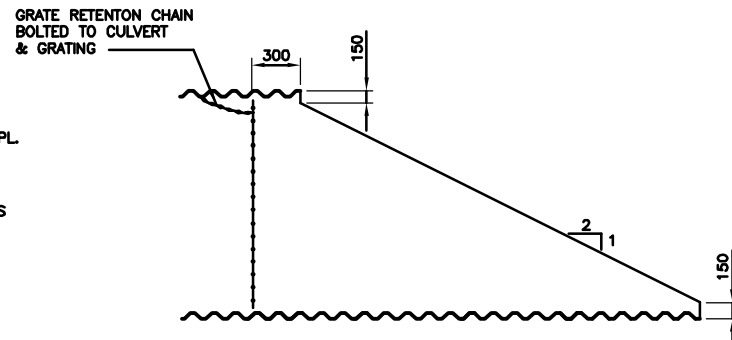
OUTFALL REPAIRS
DETAILS
UPGRADING DETAILS

SHEET OF 08 09
CAD FILE DRAWING NUMBER 02-107-04_08Rev1
CITY DRAWING NUMBER LD-2727

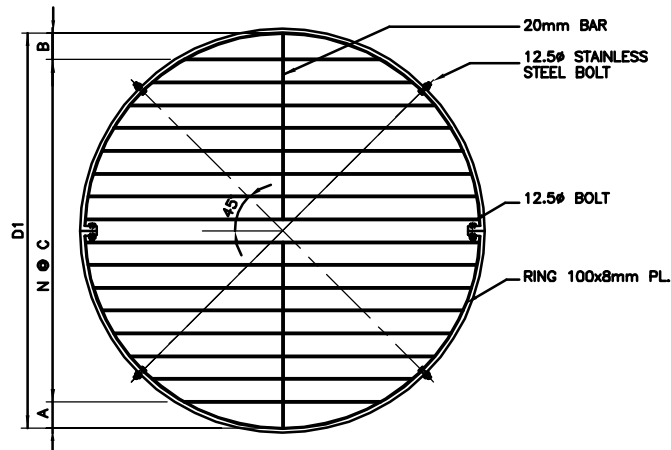
COWLEND



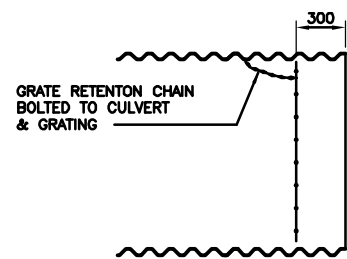
GRATING TYPE 'X'
SCALE: N.T.S.



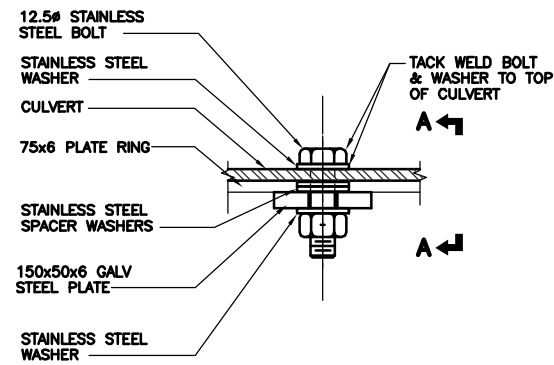
END CONDITION '1'
SCALE: N.T.S.



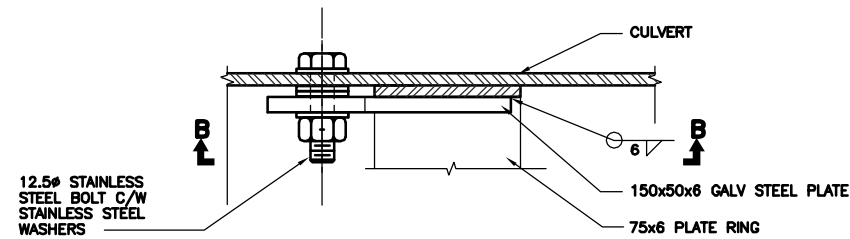
GRATING TYPE 'Y'
SCALE: N.T.S.



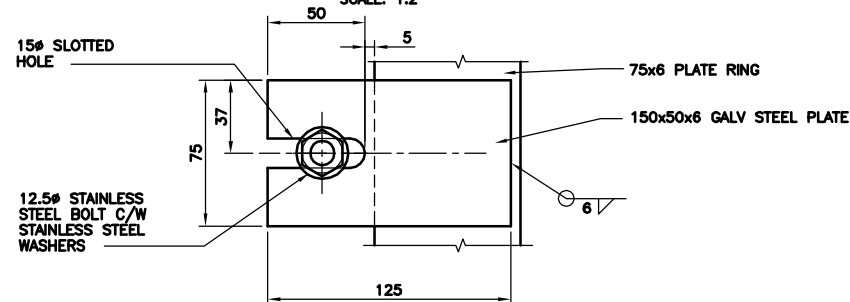
END CONDITION '2'
SCALE: N.T.S.



1 DETAIL
SCALE: 1:2



SECTION A-A
SCALE: 1:2



SECTION B-B
SCALE: 1:2

OUTFALL DEBRIS GRATING SCHEDULE										
PIPE		END CONDITION	GRATING							
DIAMETER D	MATERIAL		DIAMETER D1	TYPE	BAR DIA.	A	B	C	N	WEIGHT (lbs)
750	CSP	2	735±	X	15	150	90	135	3	25
900	CSP	2	885±	X	20	150	75	165	4	42
1050	HDPE	2	1035±	X	20	150	225	165	4	60

NOTE:
ALL PLATES AND BARS ARE CSA G40.21-300W.
ALL COMPONENTS ARE GALVANIZED.

AS-CONSTRUCTED
WATER & WASTE DEPARTMENT

PROJECT COMPLETION DATE 15 JULY 03

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

APEGM
Certificate of Authorization
KGS Group
No. 245 Expiry: April 30, 2007

LOCATION APPROVED
UNDERGROUND STRUCTURES

B.M. 64-008
ELEV. 231.949

SUPV. U/G STRUCTURES DATE
COMMITTEE

NOTE:
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NO.	REVISIONS	DATE	BY
1	AS BUILT	05/01/04	R.J.H.
0	ISSUED FOR TENDER	19/11/02	R.J.H.
A	ISSUED FOR REVIEW	30/09/02	R.J.H.

KGS GROUP
CONSULTING ENGINEERS & PROJECT MANAGERS
WINNIPEG (204) 896-1200
THUNDER BAY (807) 346-2233

DESIGNED BY D.G.G.	CHECKED BY R.J.H.
DRAWN BY D.W.	APPROVED BY
HOR. SCALE: AS NOTED	RELEASED FOR CONSTRUCTION:
VERTICAL:	DATE
DATE SEP 02, 2002	DATE

ENGINEER'S SEAL
ORIGINAL SIGNED BY
R.J. HOUSTON
12 JUNE 06

CONSULTANT DRAWING NO.
02-107-04_09Rev1

THE CITY OF WINNIPEG
WATER & WASTE DEPARTMENT

OUTFALL REPAIRS
DETAILS
UPGRADING DETAILS

SHEET OF
09 OF **09**
CAD FILE DRAWING NUMBER
02-107-04_09Rev1
CITY DRAWING NUMBER
LD-2728

M'C'P'T'Y OF ASSINIBOIA.
Extension Sewer on Woodhaven.

Top of M.H. 50.00
Prairie Level.

Sewer Invert
40.00

41.38

9' .5%

41.88

9' .5%

42.38

30.00
0

1

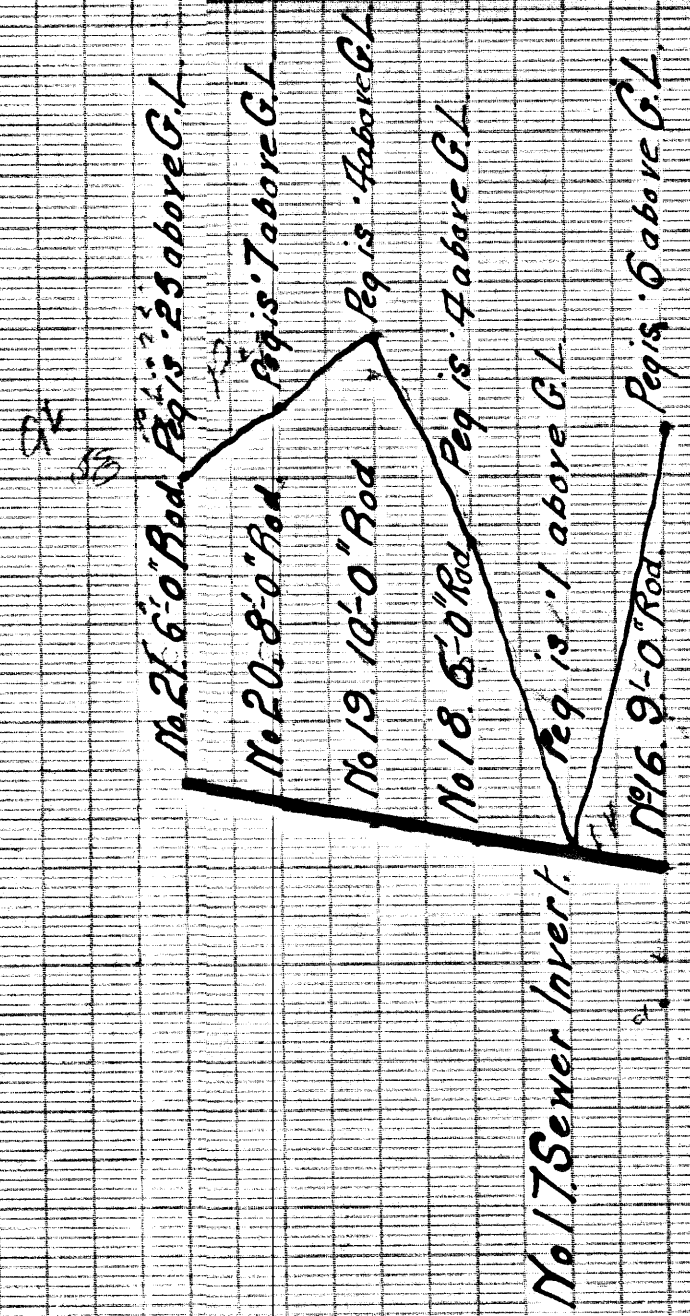
2

Scale = Hor 100' = 5"
Ver 4' = 1"

G. W. [Signature]
October 15th 1919

202

M.C. - 3565
1818



Woodward Bros. Sewer Co. Plans

202.13