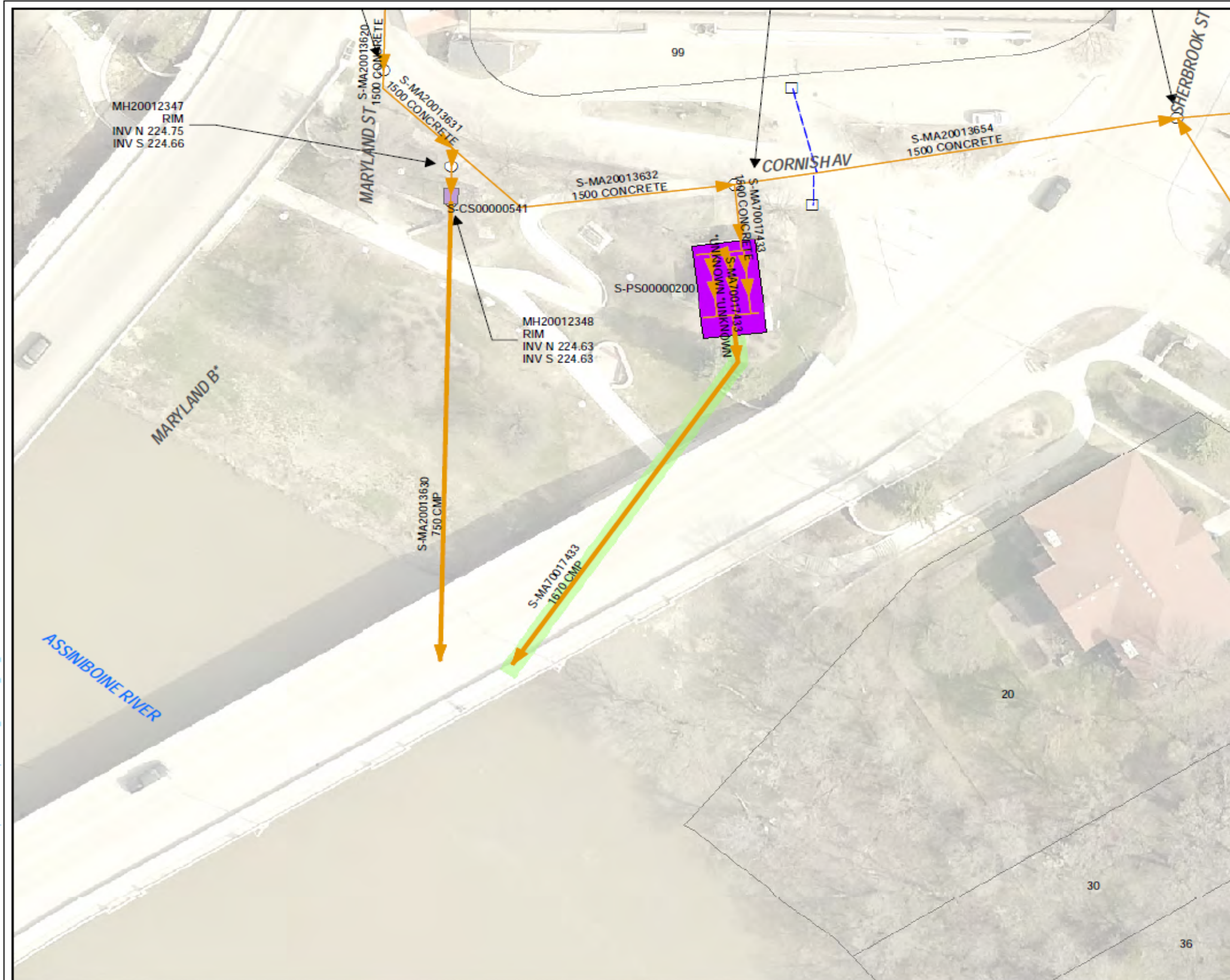


APPENDIX B – OUTFALL GENERAL LOCATION MAPS AND SITE SPECIFIC SUPPORTING DOCUMENTATION

CORNISH AVENUE OUTFALL (S-MA70017433)

**1600 MILLIMETER DIAMETER COMBINED SEWER OUTFALL BETWEEN MARYLAND STREET AND
SHERBROOK STREET.**

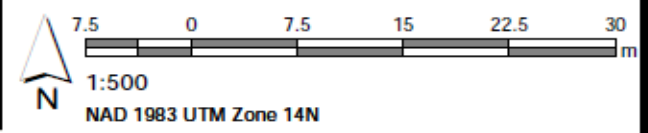


- ### Winter Inspections LEGEND
- CS
 - CB Lead
 - SEWER MANHOLE
 - CATCH BASIN
 - SEWER PUMP STATION
 - CONTROL STRUCTURE

SITE CONSIDERATIONS:
PUMP STATION ACCESS REQUIRED

Issue Status: Tender

Outfall Asset Number: S-MA70017433 - 47.84m
Upstream Sewer Asset Number: None - 0m
Upstream Manhole Coordinates: 632152.3677E, 5526762.4592N
Location: 20 WEST GATE







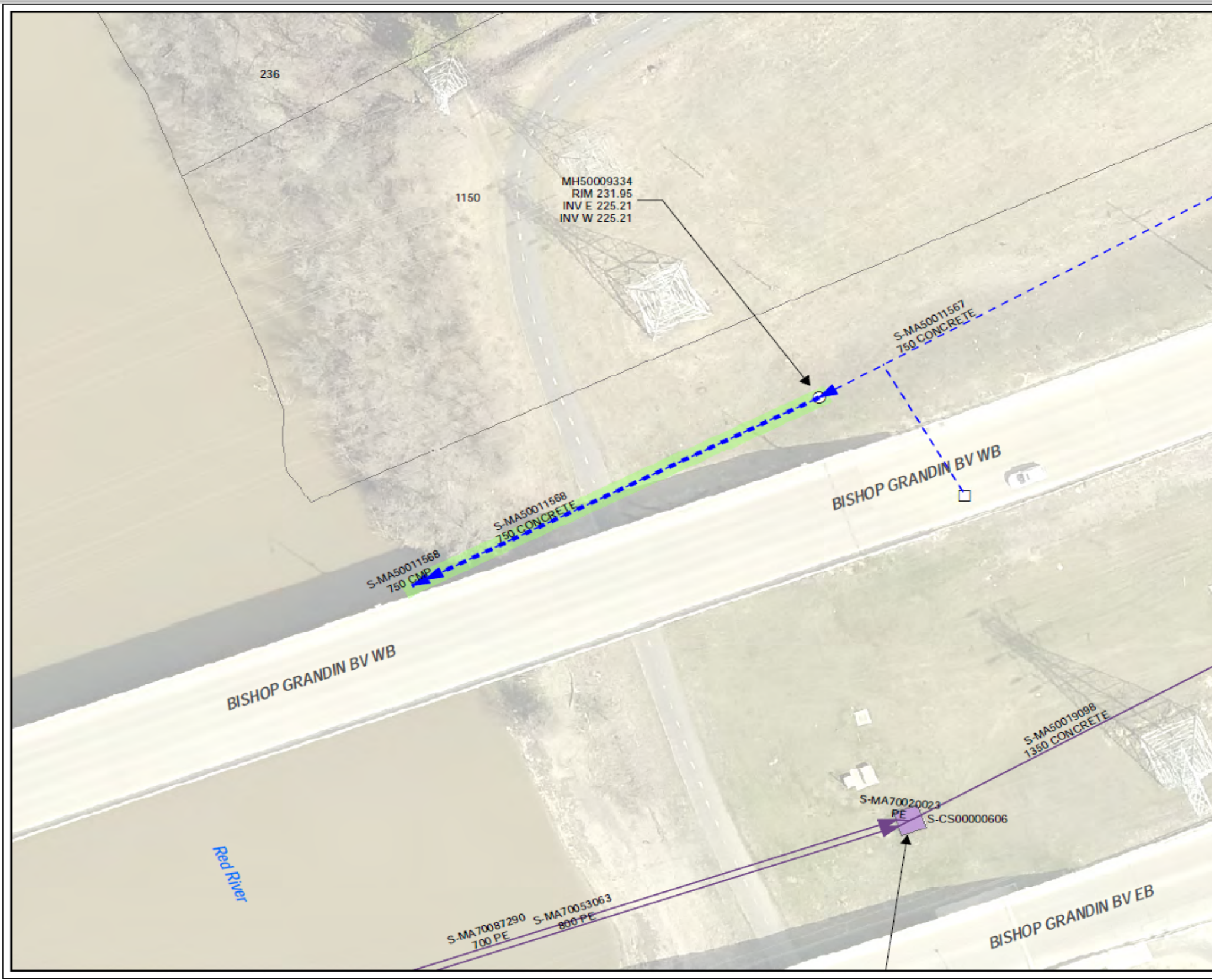






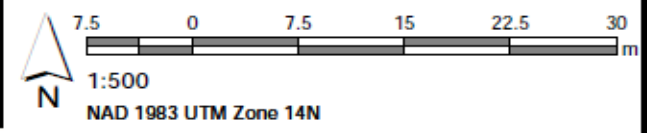
BISHOP GRANDIN BOULEVARD OUTFALL (S-MA50011668)

**750 MILLIMETER DIAMETER LAND DRAINAGE OUTFALL NORTH OF BISHOP GRANDIN WEST
BOUND ON THE EAST SIDE OF THE RED RIVER.**



- ### Fall Inspections LEGEND
- LDS
 - WWS
 - CB Lead
 - SEWER MANHOLE
 - CATCH BASIN
 - CONTROL STRUCTURE

SITE CONSIDERATIONS:



Issue Status: Tender

Outfall Asset Number: S-MA50011568 - 54.93m
 Upstream Sewer Asset Number: None - 0m
 Upstream Manhole Coordinates: 633703.2069E, 5520559.1269N
 Location: 252 RIVER RD



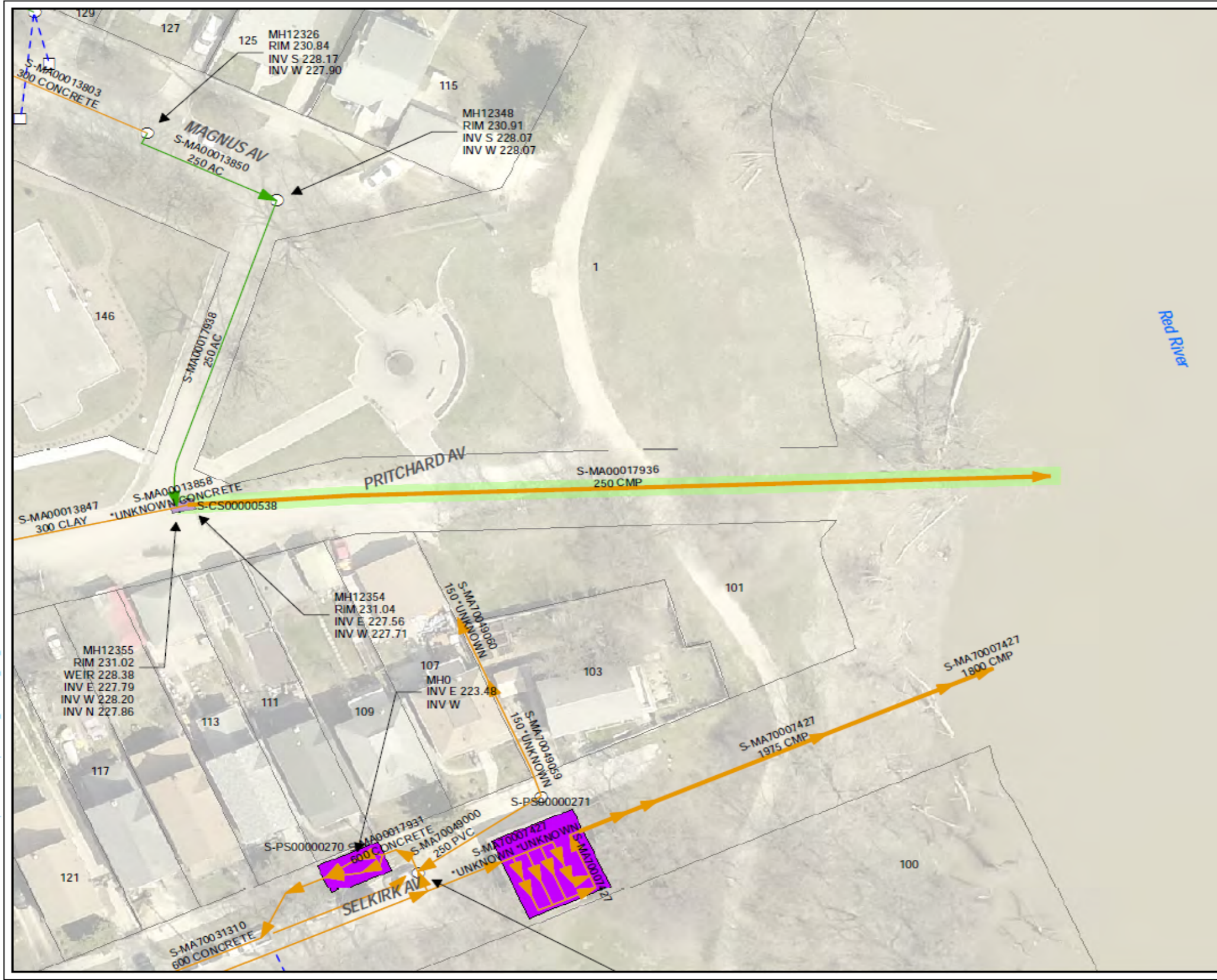






PRITCHARD AVENUE OUTFALL (S-MA00017936)

250 MILLIMETER DIAMETER COMBINED SEWER OUTFALL AT THE EAST END OF PRITCHARD AVENUE AT THE RED RIVER.



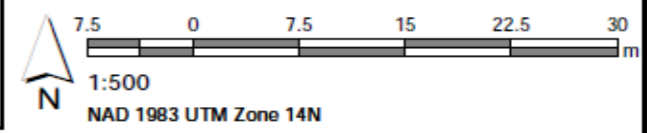
**Winter Inspections
LEGEND**

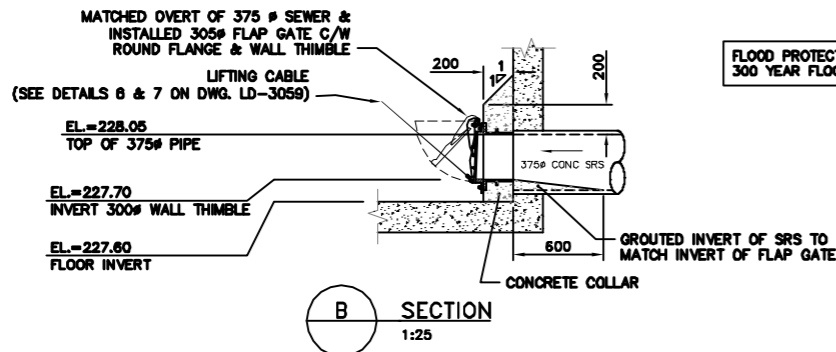
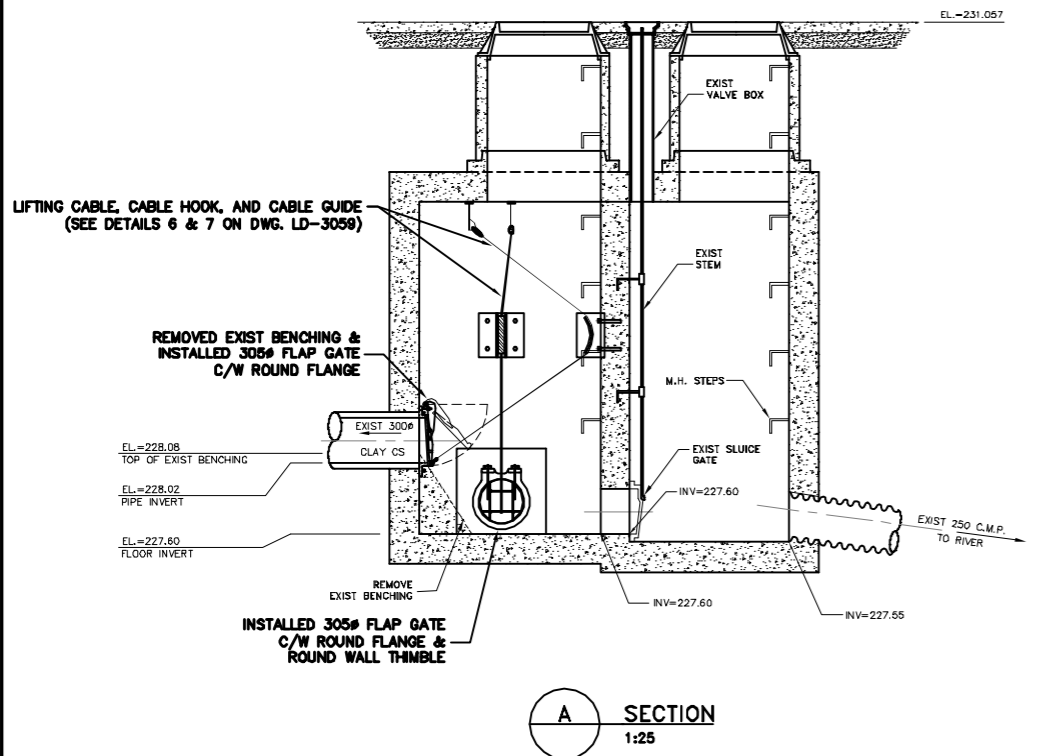
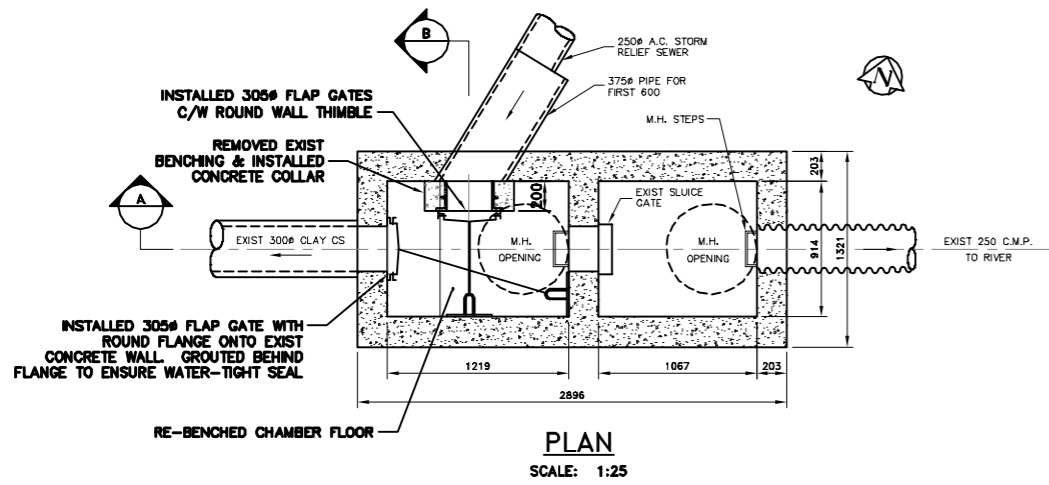
- CS
- SRS
- CB Lead
- SEWER MANHOLE
- CATCH BASIN
- SEWER PUMP STATION
- CONTROL STRUCTURE

SITE CONSIDERATIONS:
CONTROL STRUCTURE ACCESS
REQUIRED

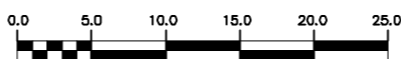
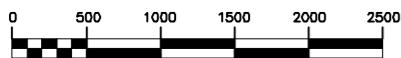
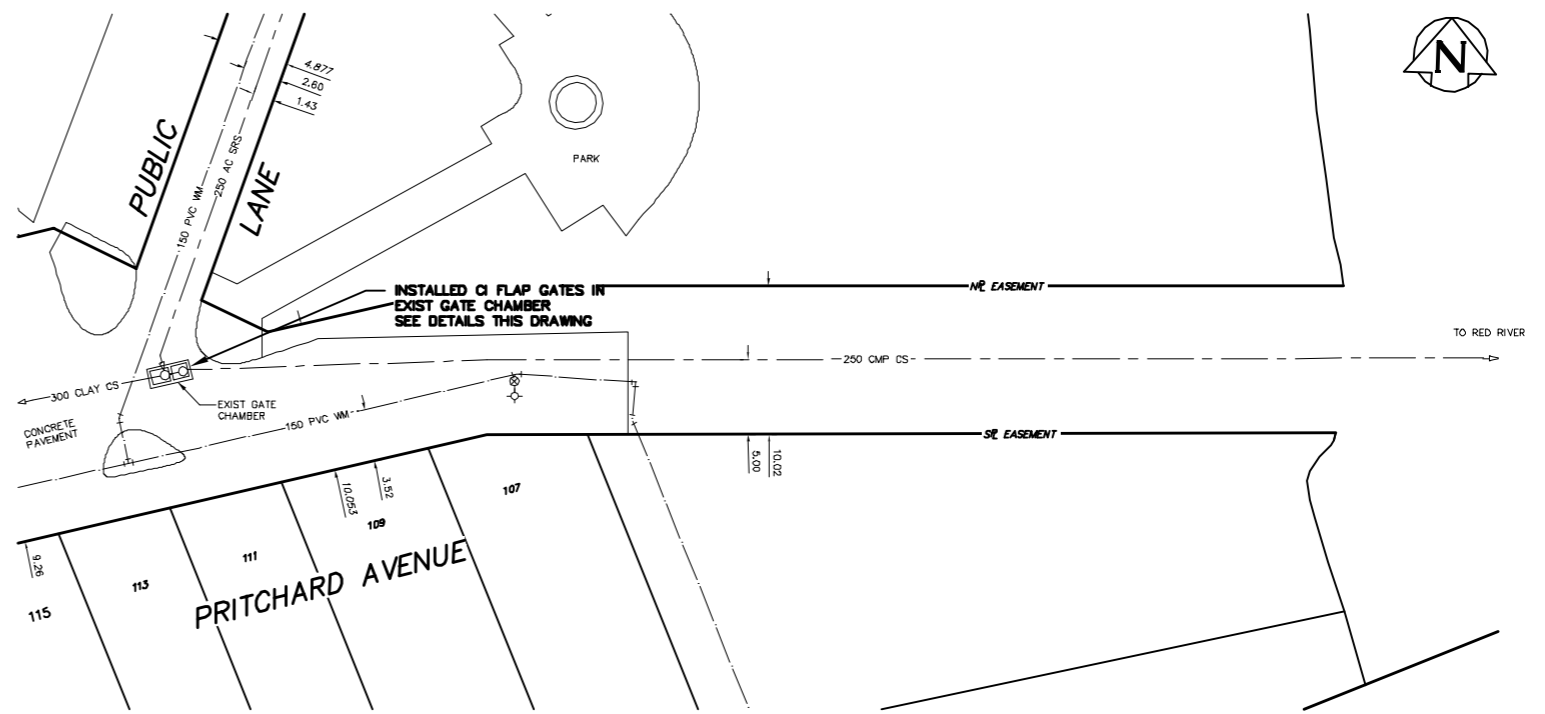
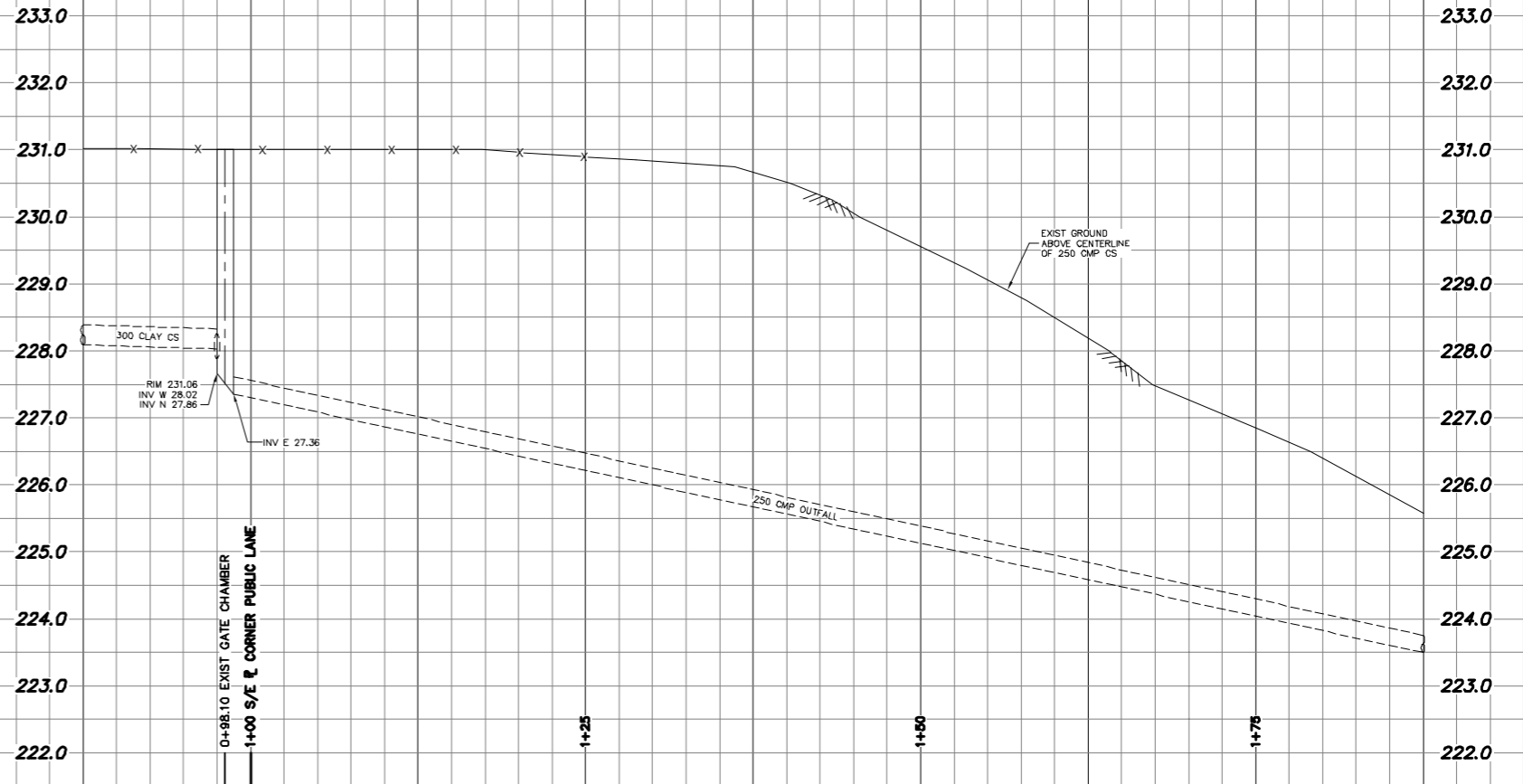
Issue Status: Tender

Outfall Asset Number: S-MA00017936 - 103.18m
Upstream Sewer Asset Number: None - 0m
Upstream Manhole Coordinates: 634339.6526E, 5530602.0587N
Location: 103 SELKIRK





FLOOD PROTECTION LEVEL = 231.13
300 YEAR FLOOD ELEV. = 232.35



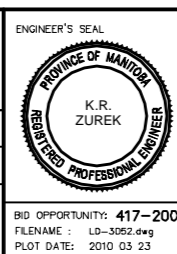
CONTRACTOR: JC PAVING
PROJECT COMPLETION DATE: 06/09/14

RECORD DRAWING
WATER AND WASTE DEPARTMENT

200 WM	WATERMAIN	200 WM	---	SL. HYDRO	---	150 WM	WATERMAIN	150 WM
+	HYDRANT	+	---	MTS	---	+	HYDRANT	+
o	VALVE	o	---	TRAFFIC SIGNALS	---	o	VALVE	o
525 LDS	LAND DRAINAGE SEWER	525 LDS	---	GAS	---	50 GAS	LAND DRAINAGE SEWER	300 LDS
375 WWS	WASTEWATER SEWER	375 WWS	---	SURVEY BAR	---	250 WWS	WASTEWATER SEWER	250 WWS
o	MANHOLE	o	---	FENCE	---	o	PROFILE	o
o	CATCH BASIN	o	---	POLE - HYDRO, MTS	---	o	GROUND ABOVE PIPE	o
o	CURB INLET	o	---	CURB STOP	---	o	? DITCH (SOUTH & EAST)	o
o	JUNCTIONS	o	---	GUY ANCHOR	---	o	GUTTER (NORTH & WEST)	o
o	CULVERT	o	---	LIGHT STANDARD	---	o		o
o	ANODE	o	---	TREE	---	o		o
o	EXISTING	o	---	LEGEND-PLAN	---	o	LEGEND-PROFILE	o
o	LEGEND-PLAN	o	---	PROPOSED	---	o	PROPOSED	o

LOCATION APPROVED		B.M. ELEV.	FIELD BOOK #
UNDERGROUND STRUCTURES			
SUPV. U/O STRUCTURES COMMITTEE	DATE	POSTED TO LBS	
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.			
1	REVISED TO RECORD DRAWING	09.01.12	C.J.H.
NO.	REVISIONS	DATE	BY

CITY OF WINNIPEG WATER AND WASTE ENGINEERING DIVISION			
DESIGNED BY	DOS	CHECKED BY	TW
DRAWN BY	C.J.H.	APPROVED BY	K.Z.
HOR. SCALE	1:250	RELEASED FOR CONSTRUCTION	
VERTICAL	1:50		
DETAILS	AS SHOWN		
DATE	2004.09.01		



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

2004 OUTFALL GATE CHAMBER UPGRADES

PRITCHARD AVE
CS OUTFALL GATE CHAMBER MODIFICATIONS
SITE PLAN AND INSTALLATION DETAILS

SHEET 7 OF 14
CITY DRAWING NUMBER
LD-3052

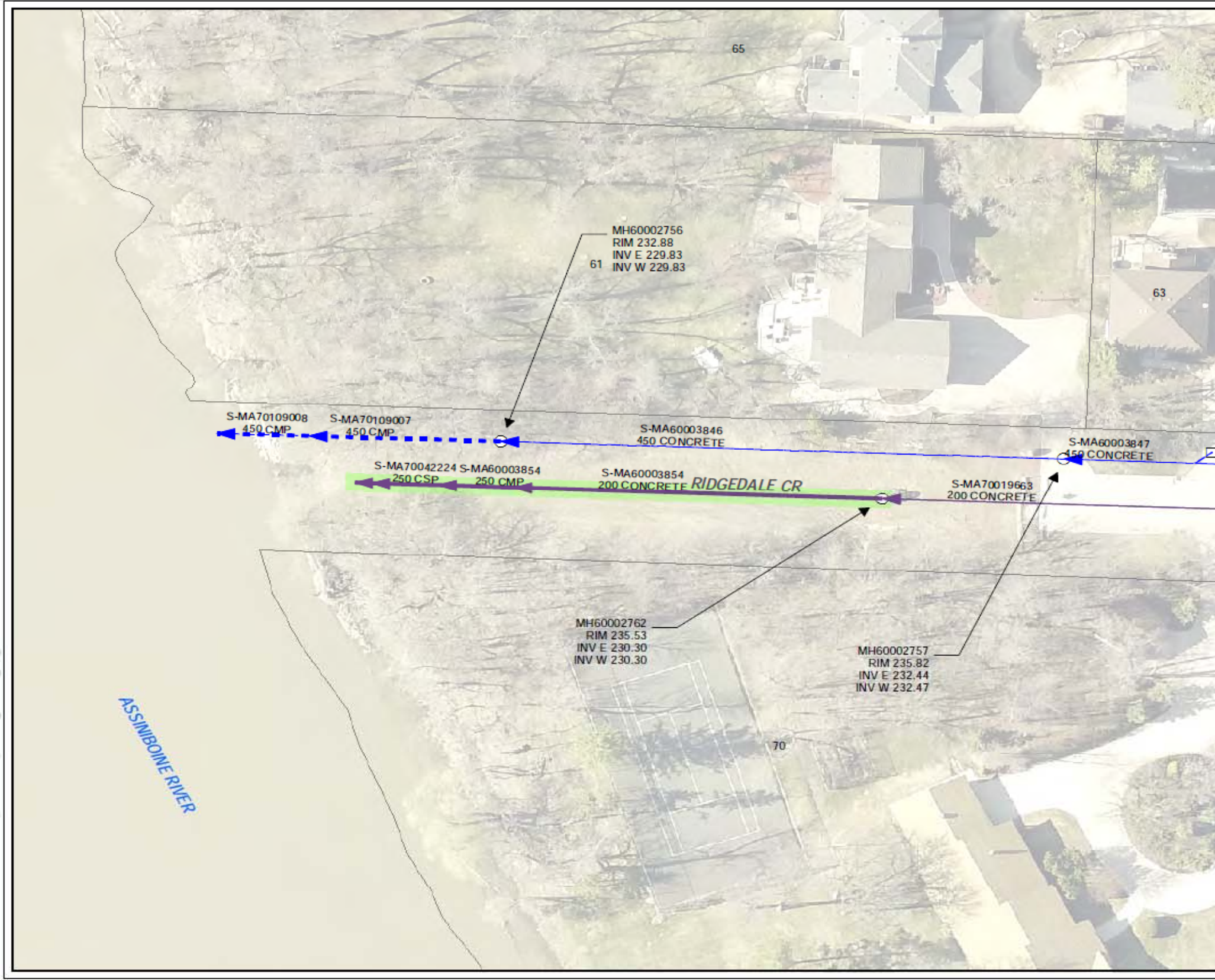
BID OPPORTUNITY: 417-2004
FILENAME: LD-3052.dwg
PLOT DATE: 2010 03 23





RIDGEDALE CRESCENT OUTFALL (S-MA60003854)

**200/250 MILLIMETER DIAMETER WASTE WATER SEWER OUTFALL AT THE WEST END OF
RIDGEDALE CRESCENT AT THE ASSINIBOINE RIVER.**

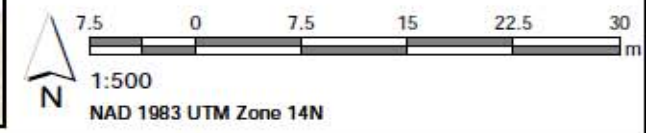


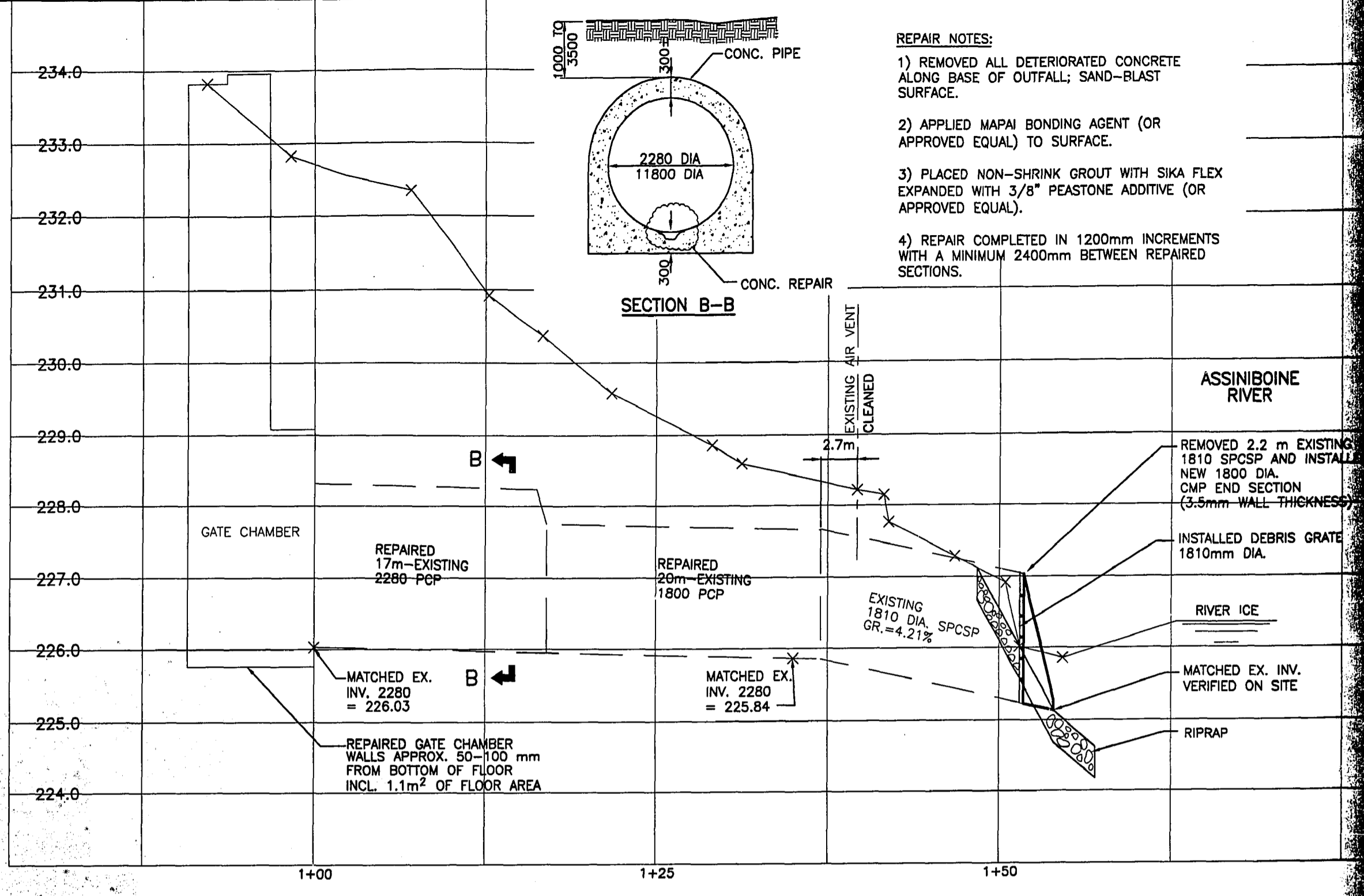
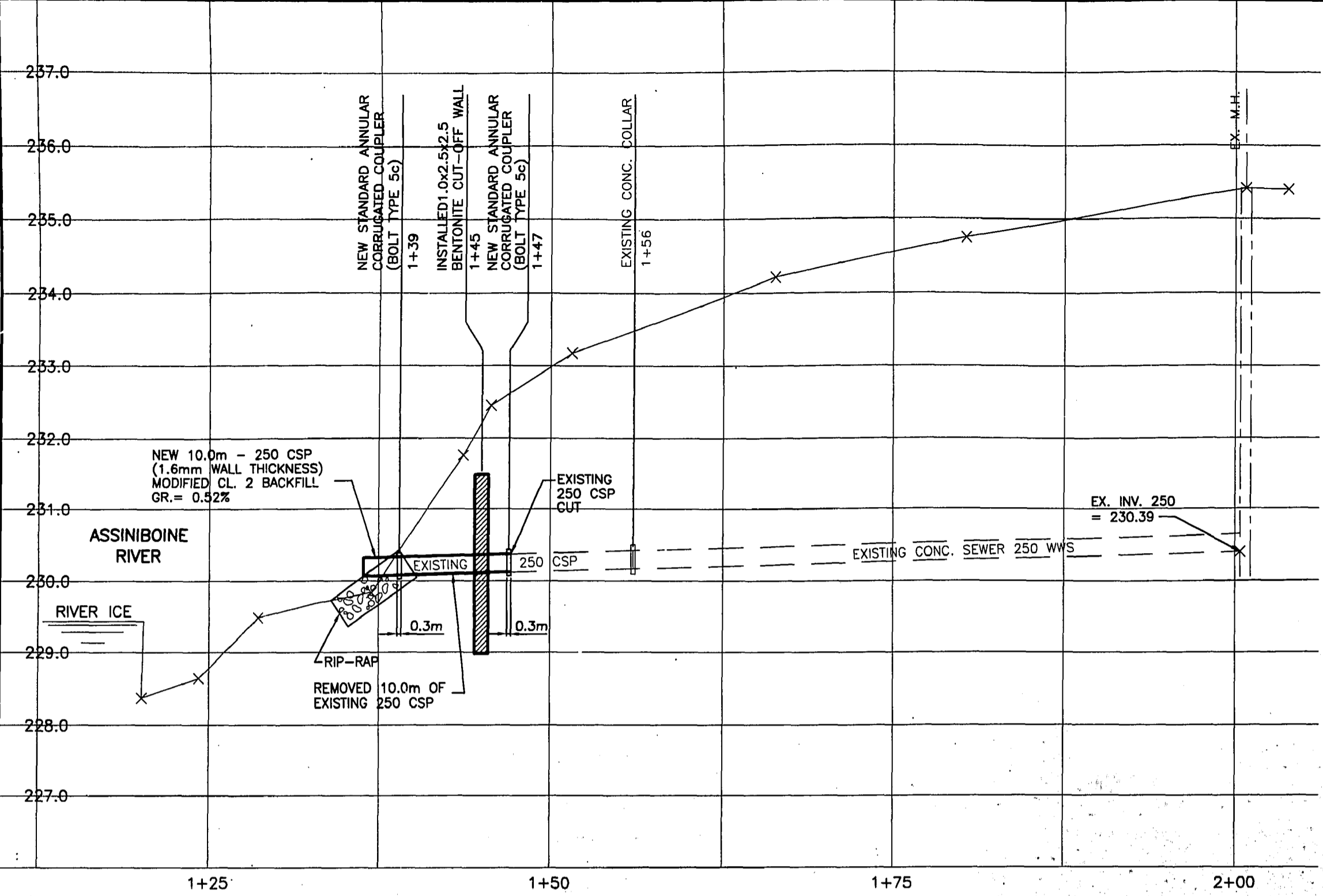
- Summer Inspections
LEGEND**
- ▶ LDS
 - ▶ WWS
 - - - CB Lead
 - SEWER MANHOLE
 - CATCH BASIN

SITE CONSIDERATIONS:

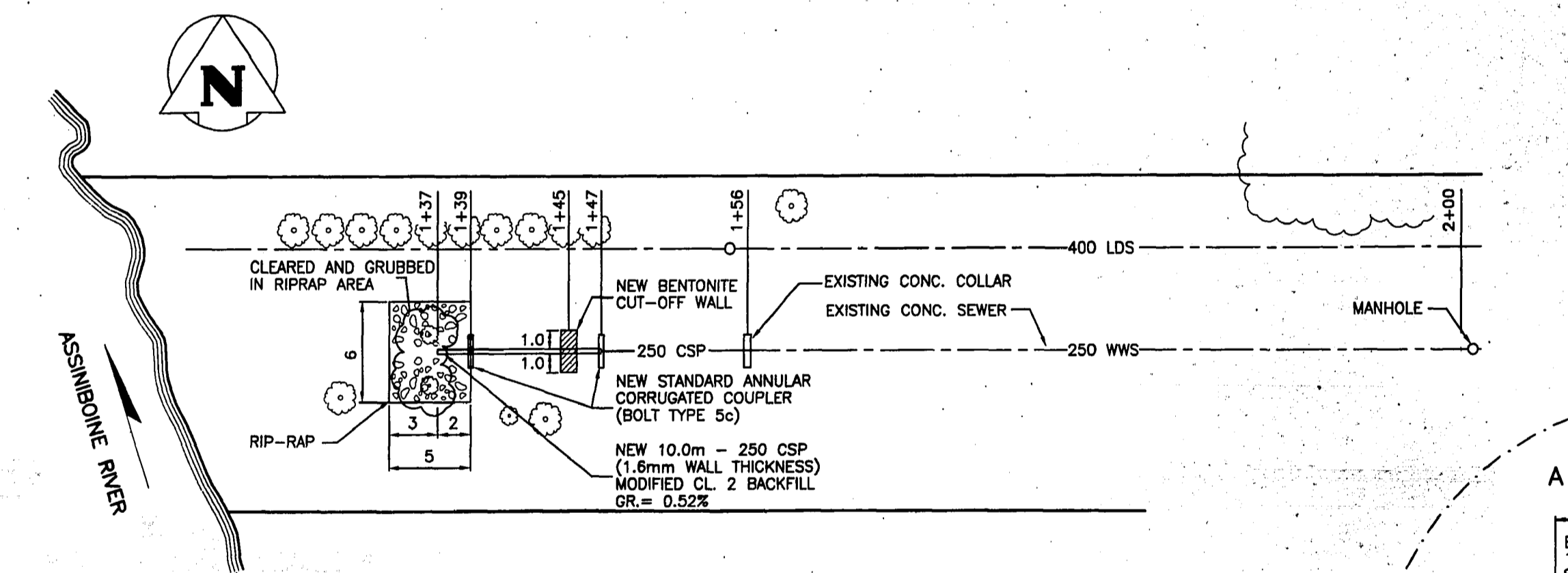
Issue Status: Tender

Outfall Asset Number: S-MA60003854 - 69.04m
 Upstream Sewer Asset Number: None - 0m
 Upstream Manhole Coordinates: 623734.4890E, 5525221.4321N
 Location: 61 RIDGEDALE CRES

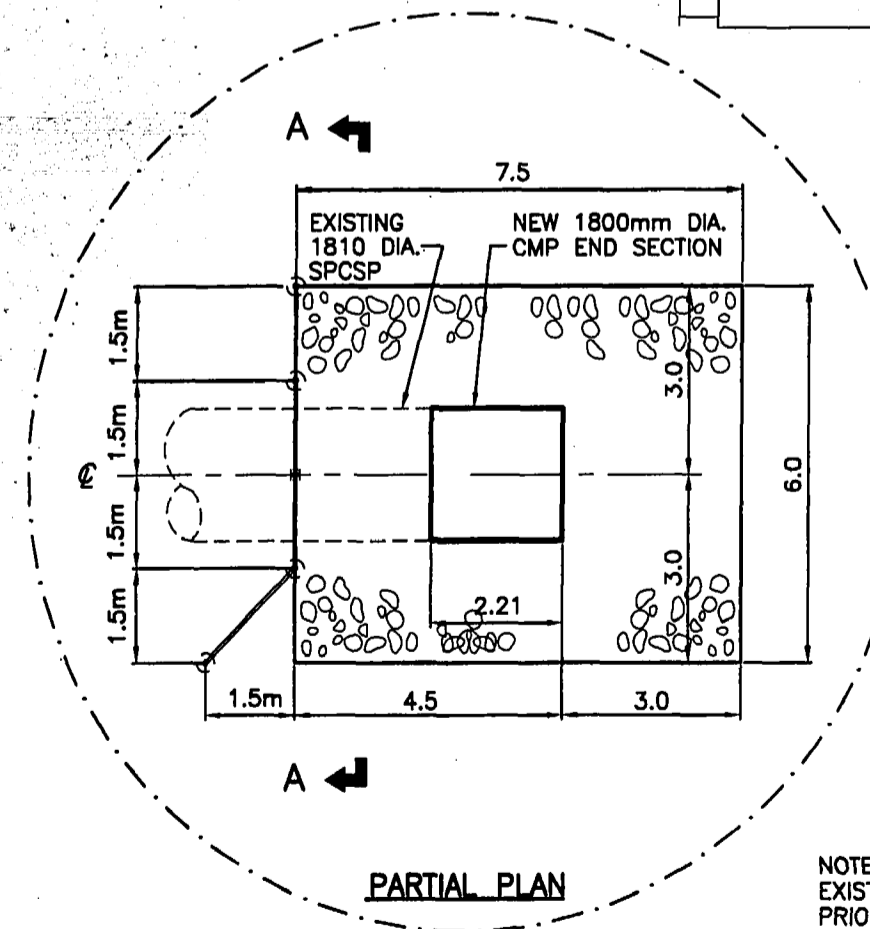
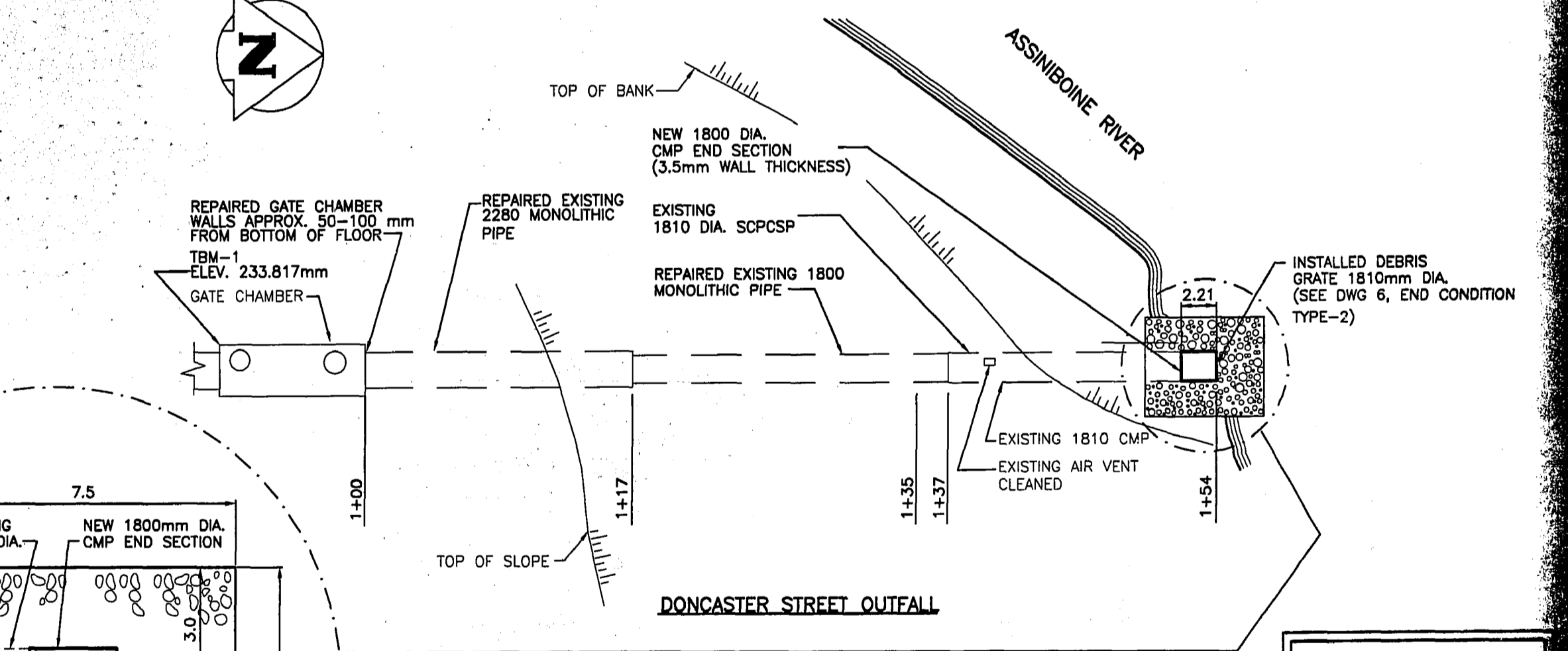
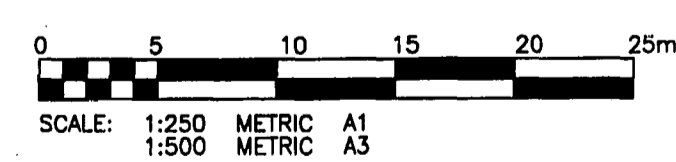




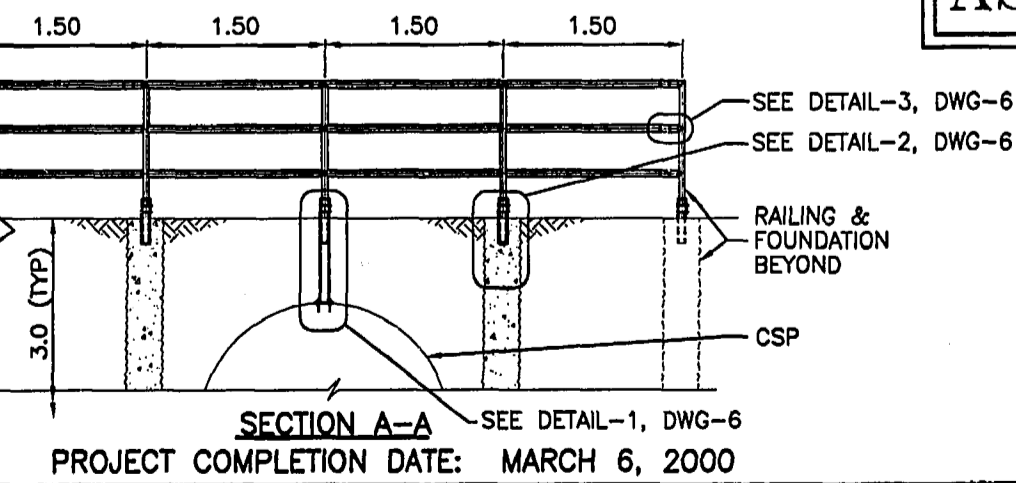
- REPAIR NOTES:**
- 1) REMOVED ALL DETERIORATED CONCRETE ALONG BASE OF OUTFALL; SAND-BLAST SURFACE.
 - 2) APPLIED MAPAI BONDING AGENT (OR APPROVED EQUAL) TO SURFACE.
 - 3) PLACED NON-SHRINK GROUT WITH SIKA FLEX EXPANDED WITH 3/8" PEASTONE ADDITIVE (OR APPROVED EQUAL).
 - 4) REPAIR COMPLETED IN 1200mm INCREMENTS WITH A MINIMUM 2400mm BETWEEN REPAIRED SECTIONS.



RIDGEDALE AVENUE OUTFALL
 T.B.M. - S. SIDE FLANGE OF FIRE HYDRANT IN FRONT OF #70 RIDGEDALE CRES. ELEV. 235.580m



NOTE: EXISTING RIPRAP REMOVED PRIOR TO INSTALLATION OF NEW RIPRAP.



AS-BUILT

WARNING
 IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
 1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
 2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
 SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

150 WWS	150 WWS	150 WWS	150 WWS	150 WWS	150 WWS	150 WWS	150 WWS
WATERMAIN	WATERMAIN	HYDRANT	HYDRANT	M.T.S.	M.T.S.	HYDRANT, VALVE	HYDRANT, VALVE
VALVE	VALVE	CONCRETE	CONCRETE	ASPHALT	ASPHALT	LAND DRAINAGE SEWER	LAND DRAINAGE SEWER
LAND DRAINAGE SEWER	LAND DRAINAGE SEWER	WASTE WATER SEWER	WASTE WATER SEWER	SIDWALK	SIDWALK	WASTE WATER SEWER	WASTE WATER SEWER
MANHOLE	MANHOLE	PROPERTY LINE	PROPERTY LINE	PLANNING	PLANNING	MANHOLE	MANHOLE
CATCH BASIN	CATCH BASIN	SURVEY BAR	SURVEY BAR	DITCH	DITCH	CATCH BASIN	CATCH BASIN
CURB INLET	CURB INLET	ELEVATION	ELEVATION	CULVERT	CULVERT	CURB INLET	CURB INLET
JUNCTIONS	JUNCTIONS			GAS	GAS	JUNCTIONS	JUNCTIONS
CULVERT	CULVERT					CULVERT	CULVERT
GAS	GAS					GAS	GAS
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	LEGEND-PROFILE

LOCATION APPROVED UNDERGROUND STRUCTURES

NO.	REVISIONS	DATE	BY
E	AS-BUILT	17/07/00	RJH
D	ISSUED FOR TENDER	24/08/99	RJH
C	RE-ISSUED FOR REVIEW	23/07/99	RJH
B	REVISED SCOPE	01/03/99	RJH
A	ISSUED FOR REVIEW	19/02/99	RJH

ENGINEER'S SEAL

DESIGNED BY	CHECKED BY
C.T.	R.J.H.
DRAWN BY	APPROVED BY
A.G.	R.J.H.

KGS CONSULTING ENGINEERS & PROJECT MANAGERS GROUP
 WINNIPEG (204) 896-1209
 THUNDER BAY (807) 345-2233

DESIGNED BY: C.T.
 CHECKED BY: R.J.H.
 DRAWN BY: A.G.
 APPROVED BY: R.J.H.

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

RE-ED FOR CONSTRUCTION: _____
 DATE: _____

CONSULTANT DRAWING NO. 99-107-01AS26AS61

ENGINEER'S SEAL

PROVINCE OF MANITOBA
R.J. HOUSTON
 REGISTERED PROFESSIONAL ENGINEER

THE CITY OF WINNIPEG
 WATER & WASTE DEPARTMENT

OUTFALL REPAIRS
 RIDGEDALE AVENUE OUTFALL (AS-26)
 W. OF JAYMORR DR.
 DONCASTER STREET OUTFALL (AS-61)
 N. OF FULHAM AVE.

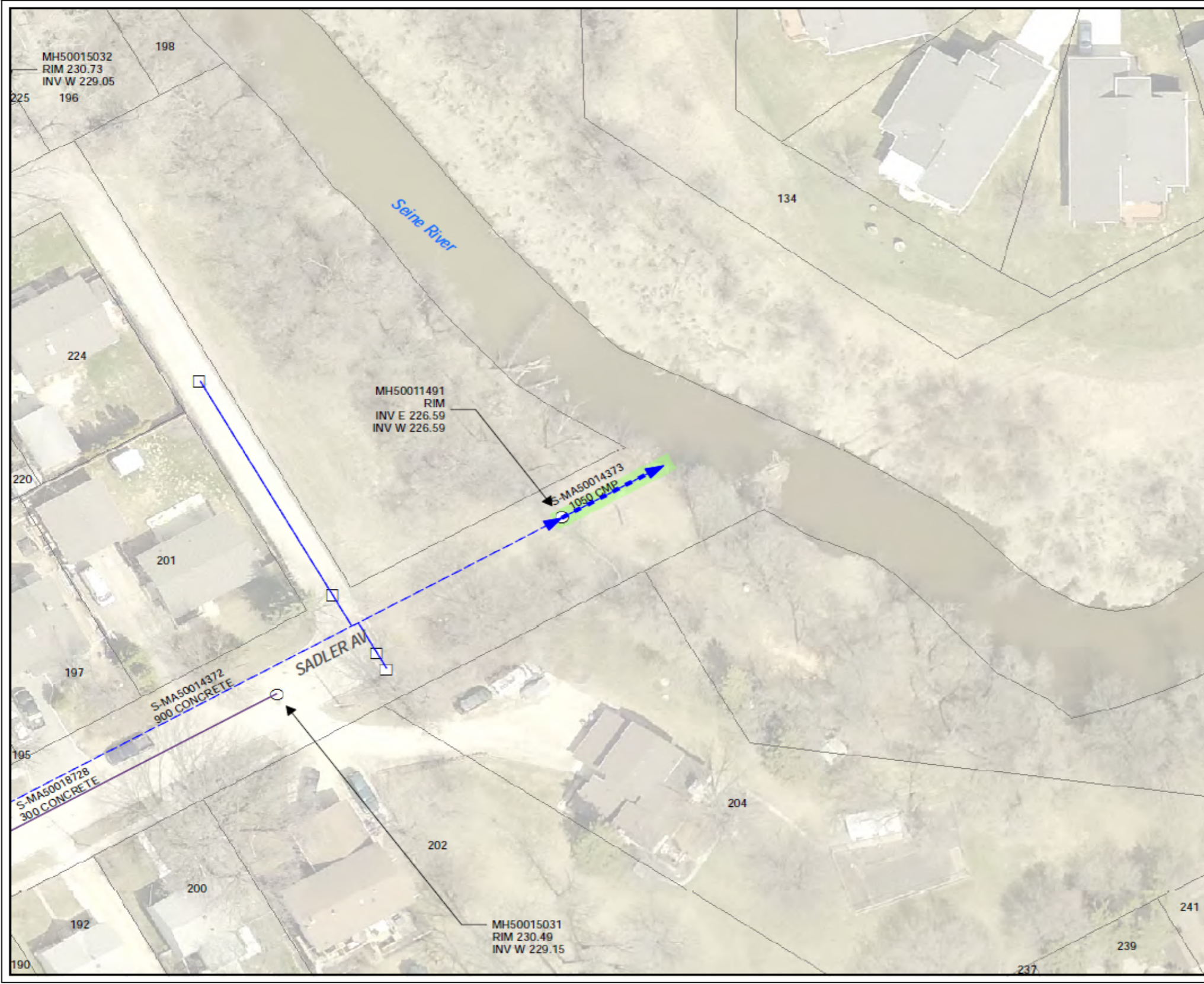
SHEET 2 OF 6
 COMPUTER FILE NAME: 01949.DWG
 CITY DRAWING NUMBER: LD-1949

APEGN
 Certificate of Authorization
 No. 245
 Expires April 30, 2003
 Signature: [Signature]
 Date: Feb 12, 2003



SADLER AVENUE OUTFALL (S-MA 50014373)

**1050 MILLIMETER LAND DRAINAGE SEWER OUTFALL AT THE EAST END OF SADLER AVENUE
AT THE SEINE RIVER.**



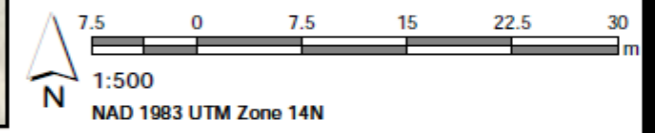
**Summer Inspections
LEGEND**

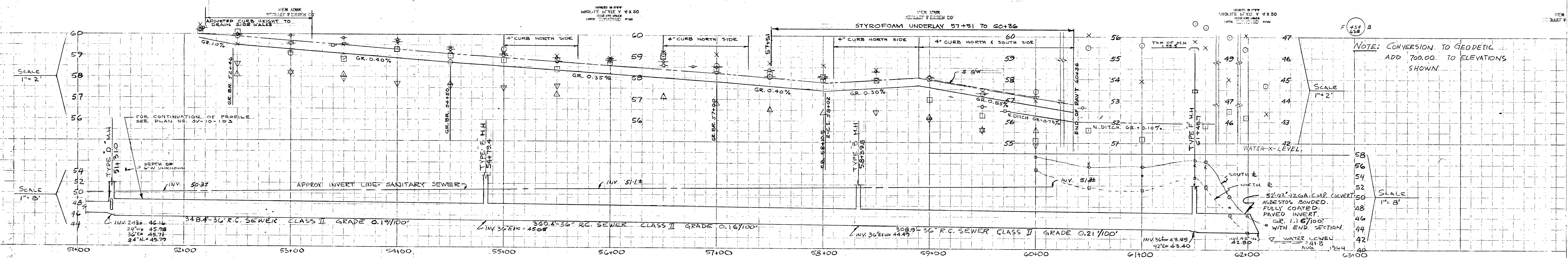
- LDS
- WWS
- CB Lead
- SEWER MANHOLE
- CATCH BASIN

SITE CONSIDERATIONS:

Issue Status: Tender

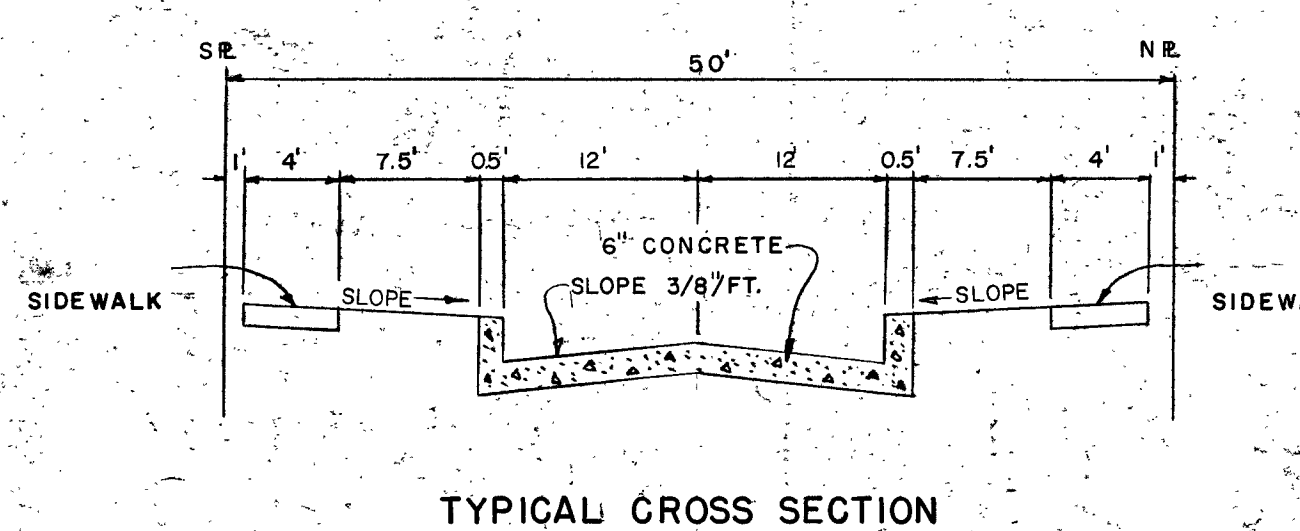
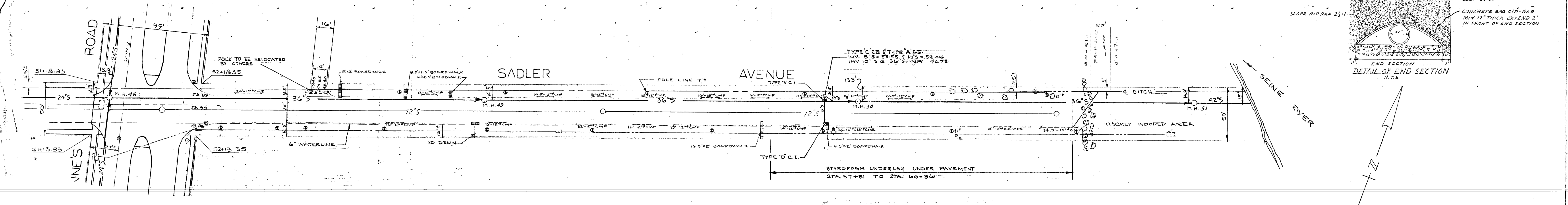
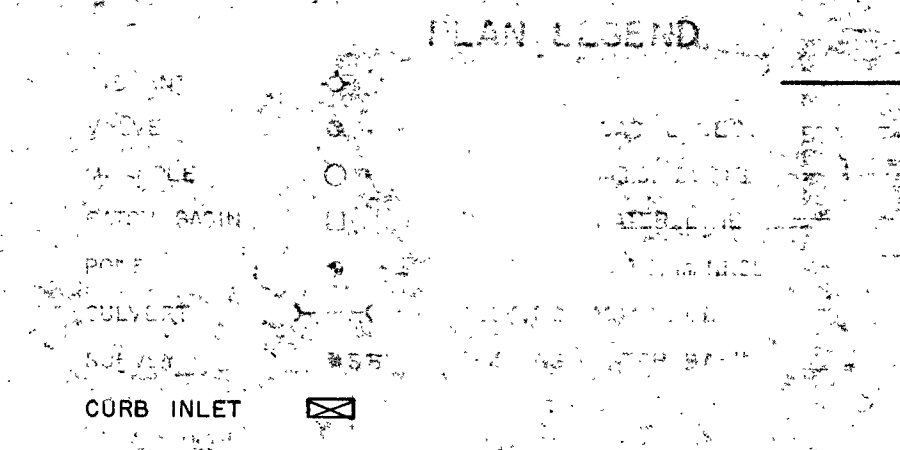
Outfall Asset Number: S-MA50014373 - 14.06m
Upstream Sewer Asset Number: None - 0m
Upstream Manhole Coordinates: 637077.0850E, 5523351.7351N
Location: 201 SADLER AVE



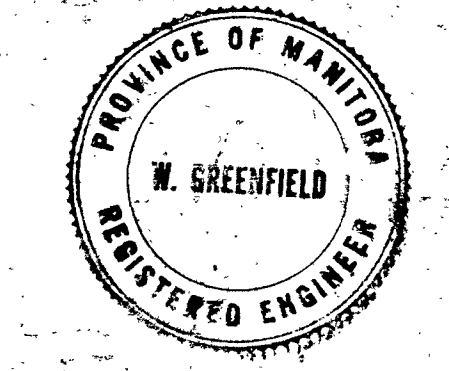


NOTE: CONVERSION TO GEODETIC
ADD 700.00 TO ELEVATIONS
SHOWN.

GENERAL NOTES
1. TO HAVE...
2. STREET INTERSECTION FILLETS 20' RADIUS, LANE FILLETS 10' RADIUS EXCEPT WHERE OTHERWISE NOTED.



NO.	DESCRIPTION	DATE
6	REVISED YARD DRAINAGE STYROFOAM TO AS BUILT	JAN 23/68
5	ADDED DITCHES STA 59+70 TO SEINE	JULY 27/67
4	REVISED PAV'T GRADE 58+70 TO END	JUNE 9/67
3	ADDED PAVEMENT	MAR 27/67
2	REVISED SEWER TO AS BUILT	FEB 10/67
1	ADDED MANHOLE TOP ELEVATIONS	SEPT 12/66



SADLER AVENUE
ST ANNE'S ROAD TO SEINE RIVER
R. I.
G.G.S.





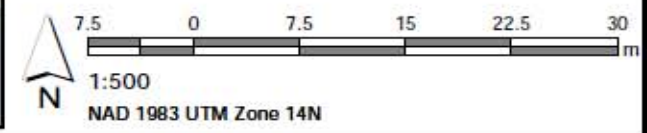
NORTH PERIMETER DRIVE IN ASSINIBOINE PARK (S-MA60003874)

**300 MILLIMETER LAND DRAINAGE SEWER OUTFALL ACROSS THE ASSINIBOINE RIVER FROM
2220 PORTAGE AVENUE AND CONWAY PUMPING STATION.**



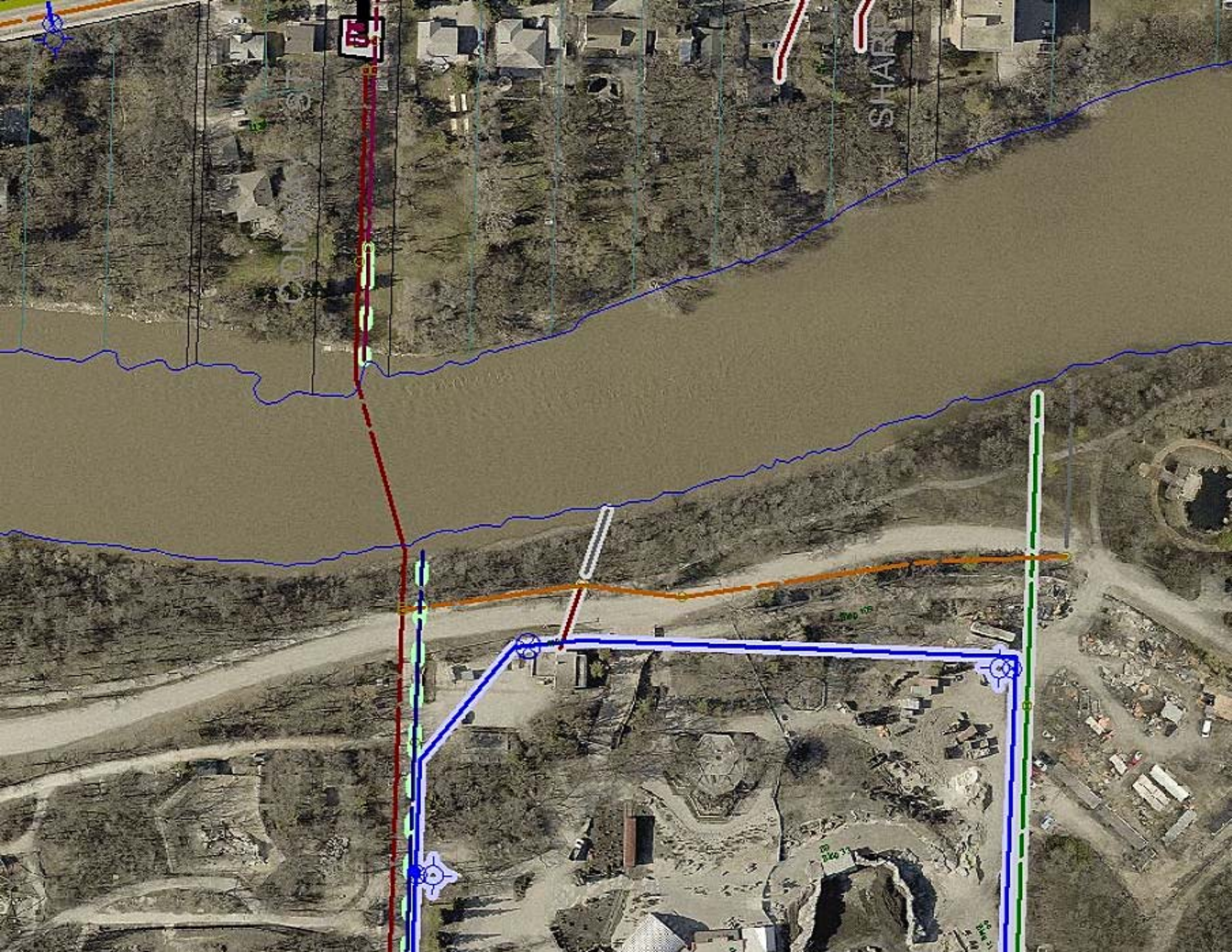
- Sonar Required LEGEND**
- ▶ LDS
 - ▶ WWS
 - SEWER MANHOLE
 - CONTROL STRUCTURE

SITE CONSIDERATIONS:
 SITE ACCESS TO ASSET DIFFICULT -
 FENCED AND GATED (PART OF
 ASSINIBOINE PARK ZOO)



Issue Status: Tender

Outfall Asset Number: S-MA60003874 - 62.34m
Upstream Sewer Asset Number: None - 0m
Upstream Manhole Coordinates: 626398.8115E, 5526116.2415N
Location: 2220 PORTAGE AVE ACROSS



SHARP

200 175

200 175

200 175



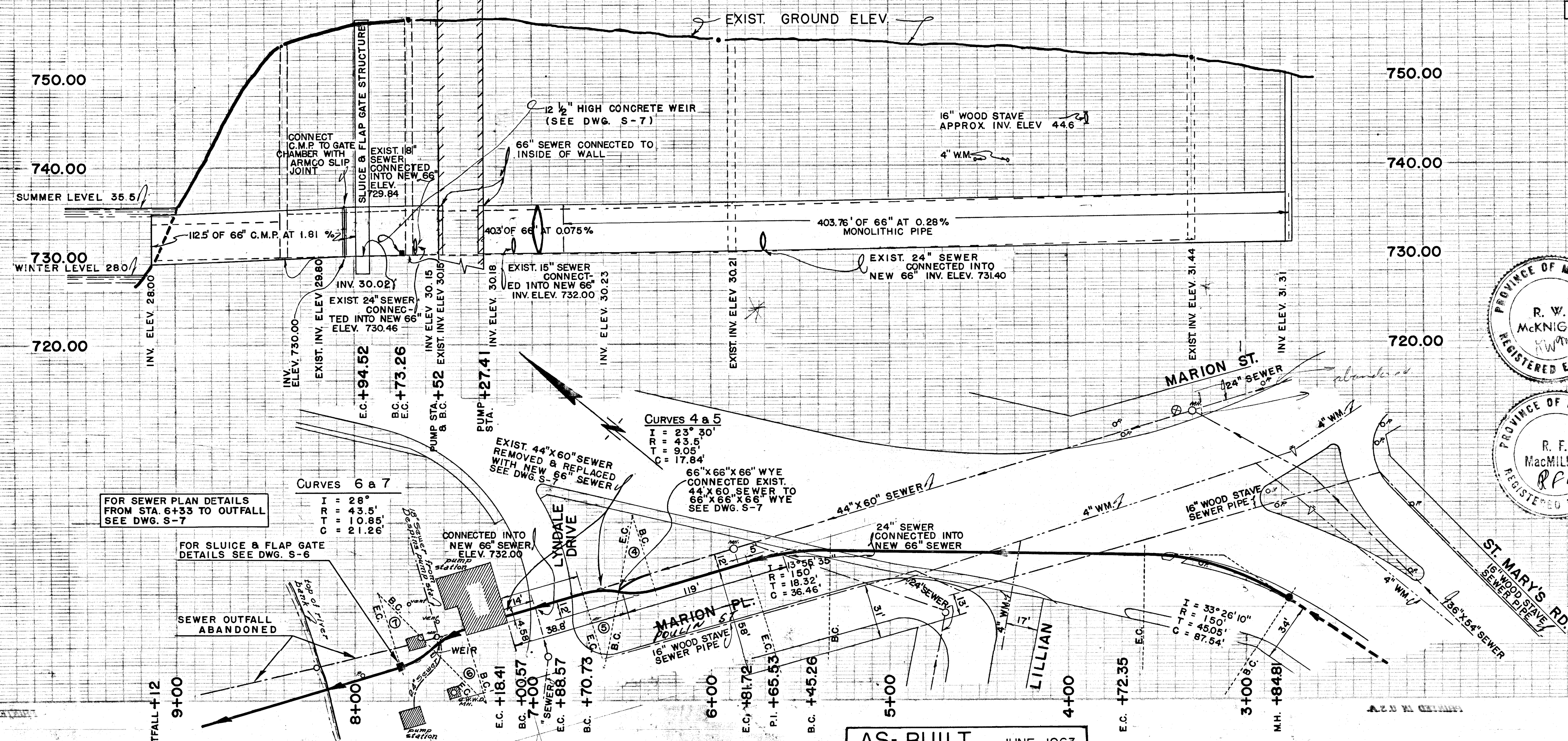






MARION STREET OUTFALL – (S-MA50008337)

**1650 MILLIMETER DIAMETER COMBINED SEWER OUTFALL LOCATED AT THE MARION LIFT
STATION AT THE RED RIVER**



LEGEND

- PROP SEWER
- PROP MANHOLE
- DIRECTION OF FLOW

CONC. C 76-59T PIPE (RUBBER GASKET JOINTS)

PIPE SIZE	PIPE CLASS	MAX. DEPTH TO INV.	TRENCH WIDTH	CLASS OF BEDDING
66 IN.	III	27 FT.	O.D. + 3 FT.	'B'

66 IN. 12 G. TO 16 FT. UNSTRUTTED
C.M.P. 10 G. TO 26 FT. STRUTTED



ALL ELEV'S. ARE BASED ON GEODETIC DATUM (1929 ADJUSTMENT)
B.M.-19, SPIKE IN MAPLE TREE NORTH WEST CORNER OF
FERNDAL & KIRKDALE — ELEV. 752.99

ST. BONIFACE MANITOBA
PLAN & PROFILE OF COMBINED SEWER IN ST. MARY'S ROAD FROM STA. 2+75.57 TO OUTFALL
 HORIZ. 1"=40', VERT. 1"=8'
 JUNE 1962
 R.F.M. 6249
 MK & C.E.P.
 R.W.M. R.F.M.
 REG'D. PLAN 4711 & 5743

AS-BUILT JUNE 1963

209

S-1
CS 48520





