

**SRB GEOMETRY POINT TABLE**

POINT #	NORTHING	EASTING
P1	5523688.702	631962.711
P2	5523713.536	632109.021
P3	5523721.543	632119.614
P4	5523750.183	632158.523
P5	5523772.245	632288.436
P6	5523791.924	632346.915
P7	5523790.884	632449.089
P8	5523788.557	632460.260
P9	5523786.966	632463.852
P10	5523774.673	632467.766
P11	5523769.668	632463.866
P12	5523758.073	632446.996
P13	5523745.936	632443.730
P14	5523683.776	632349.729
P15	5523569.213	632109.928
P16	5523568.250	632081.525
P17	5523596.938	632009.267
P18	5523596.353	631997.279
P19	5523592.530	631989.854
P20	5523618.237	631938.590
P21	5523647.847	631933.638

**SRB GEOMETRY LINE TABLE**

LINE #	LENGTH	DIRECTION
L1	148.403	S80°22'00"W
L2	131.825	S80°23'36"W
L3	61.701	S71°24'05"W
L4	20.471	N55°29'51"E
L5	12.569	N15°03'39"E
L6	112.695	N56°31'30"E
L7	265.762	N64°27'51"E
L8	77.744	S68°20'44"E
L9	8.351	N62°45'26"E
L10	30.021	S09°29'37"E

**SRB GEOMETRY CURVE TABLE**

CURVE #	LENGTH	RADIUS	DELTA
C1	13.833	14.0	056°30'31"
C2	50.120	53.4	053°47'48"
C3	102.706	292.4	020°07'38"
C4	11.412	292.4	002°14'11"
C5	3.954	10.0	022°40'56"
C6	6.449	10.5	035°14'36"
C7	29.239	35.5	047°11'25"
C8	12.375	14.5	048°53'50"
C9	66.760	35.5	107°44'57"
C10	55.677	35.5	089°51'37"

NOTE THAT AREA (BETWEEN HEATHERDALE AVE AND THE SWRT PROPERTY LINE) TO BE REPLANTED WITH TREES SUBSEQUENT TO COMPLETION OF SRB CONSTRUCTION, AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR

NOTE THAT AREA (BETWEEN HEATHERDALE AVE AND THE SWRT PROPERTY LINE) TO BE REPLANTED WITH TREES SUBSEQUENT TO COMPLETION OF SRB CONSTRUCTION, AND AS DIRECTED BY THE CONTRACT ADMINISTRATOR

**PLAN**  
SCALE: 1:1000

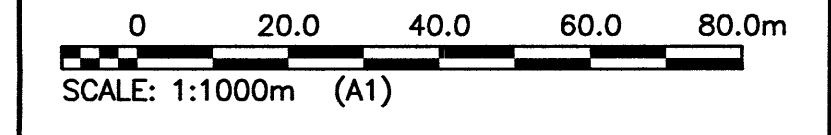
**WARNING**

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
- SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.

**PROPERTY LIMITS DELINEATION**

DELINEATION OF PROPERTY LIMITS AS SHOWN ON THIS DWG DOES NOT REPRESENT A "LEGAL SURVEY". KGS GROUP MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF PROPERTY LIMITS DELINEATED ON THIS DWG, NOR ON THE DIMENSIONAL ACCURACY OF DWG FEATURES RELATIVE TO THOSE PROPERTY LIMITS.

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMAL NUMBERS INDICATE METRES



**APEGM**  
Certificate of Authorization  
KGS Group  
No. 245

150 WWS	WATER MAIN	150 WM	Hydrant	150 WWS	WATER MAIN	150 WM	Hydrant, Valve
300 LDS	LAND DRAINAGE SEWER	300 LDS	Valve	300 LDS	WATER MAIN	300 LDS	Hydrant, Valve
250 WWS	WASTE WATER SEWER	250 WWS	Manhole	300 LDS	LAND DRAINAGE SEWER	300 LDS	Land Drainage Sewer
	HYDRO		Catch Basin	250 WWS	WASTE WATER SEWER	250 WWS	Waste Water Sewer
	M.T.S.		Curb Inlet		CENTRELINE		Centreline
	GAS		Railway Tracks		NORTH/WEST GUTTER		North/West Gutter
	CONCRETE		Ditch		SOUTH/EAST GUTTER		South/East Gutter
	ASPHALT		Fence		N/W, S/E R'S		N/W, S/E R'S
	SIDEWALK		Hydro Pole				
	TURF STONE		Hydro Tower				
	PROPERTY LINE		Test Hole				
EXISTING	LEGEND-PLAN	PROPOSED	EXISTING	PROPOSED	EXISTING	LEGEND-PROFILE	PROPOSED

**LOCATION APPROVED UNDERGROUND 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. KGS BASE ELEV.	ALL DATA PROVIDED IS IN UTM ZONE 14, NAD83, CSRS, CGVD28
NO.	ISSUED FOR CONSTRUCTION
REVISIONS	DATE

**KGS GROUP CONSULTING ENGINEERS**

DESIGNED BY	JMM	CHECKED BY	RBO
DRAWN BY	GEL	APPROVED BY	RBO
HOR. SCALE:	1:1000	RELEASED FOR CONSTRUCTION	DATE
VERTICAL:		DATE	16/06/10

ENGINEER'S SEAL  
PROF. REG. OF MANITOBA  
**R.B. OFFMAN**  
Member No. 24701  
REGISTERED PROFESSIONAL ENGINEER

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

PROJECT TITLE  
**COCKBURN/CALROSSIE COMBINED SEWER RELIEF WORKS - CONTRACT 3**

SHEET OF  
**1 OF 1**

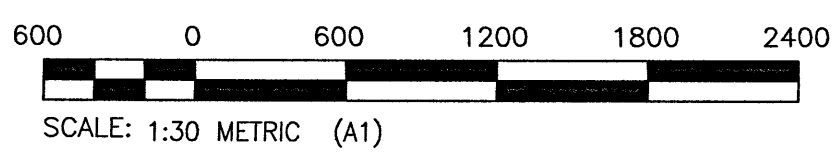
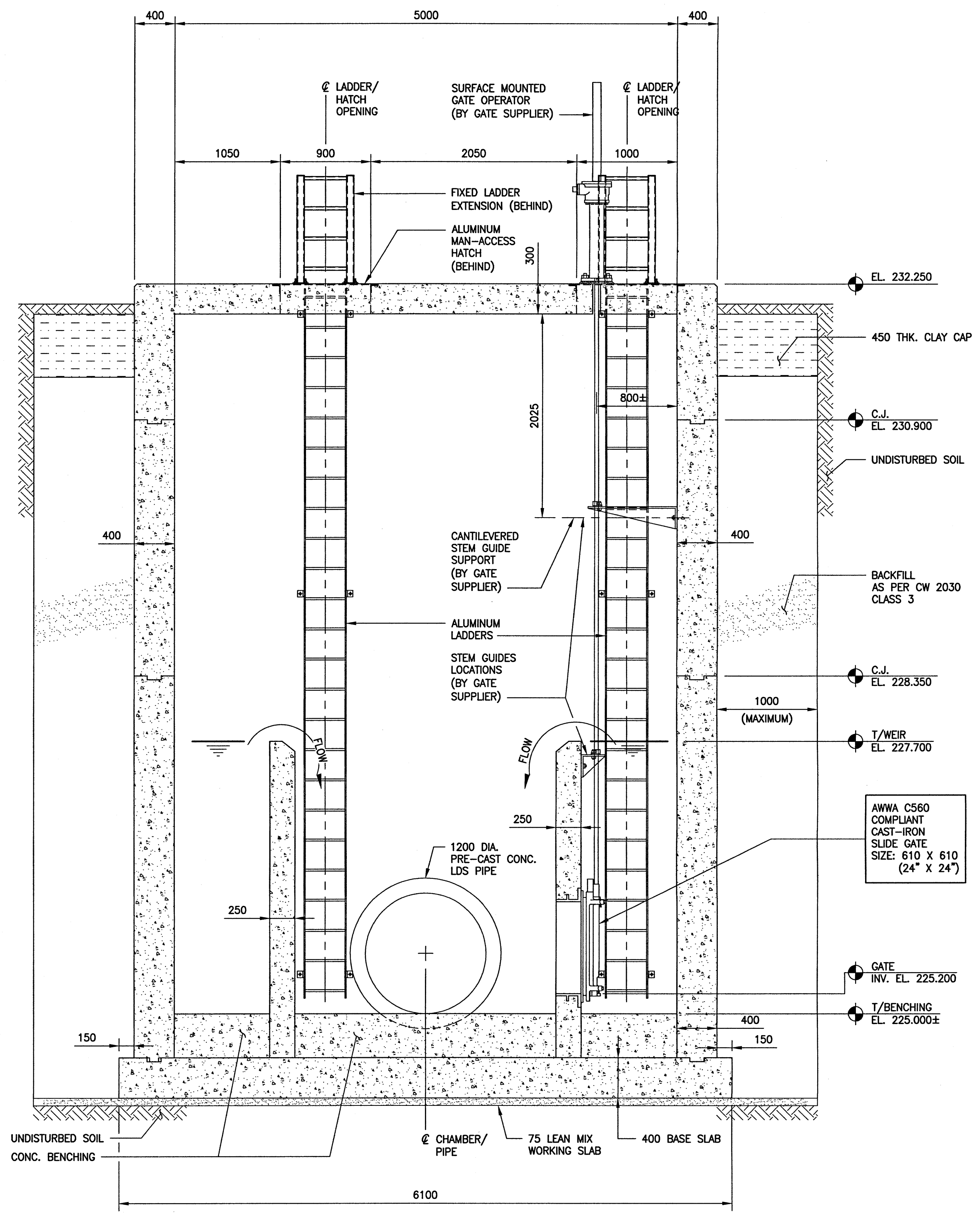
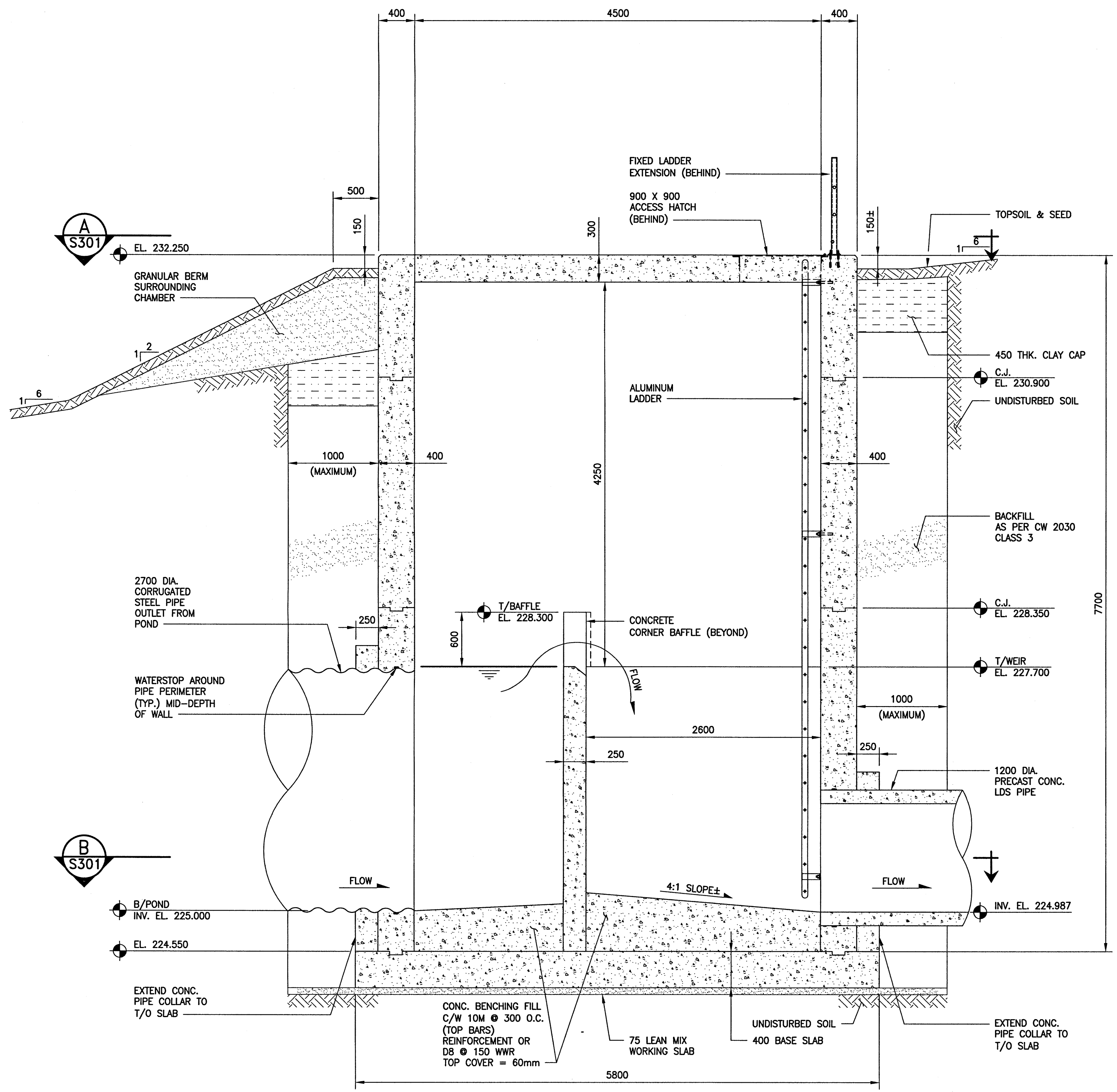
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**11-0107-18\_POND**

CITY DRAWING NUMBER  
**LD-8214**

CONSULTANT DRAWING NO.  
**11-0107-18\_C303**

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File Name: P:\Projects\2011\11-010-18\DocControl\obssues\DWG\11-010-18\_LU-8226.dwg - Job: XX-XXXX Plotted By: dderoché 0/12/2017 [Wed 4:25pm]



<b>LOCATION APPROVED UNDERGROUND STRUCTURES</b> SUPV. U/G STRUCTURES COMMITTEE DATE _____		B.M. KGS BASE ELEV. - _____	DWGS BASED ON C.S.R.S. NAD 83 SYSTEM, UTM GRID
<b>NOTE:</b> 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.			
0	ISSUED FOR CONSTRUCTION	17/07/13	KRD
NO.	REVISIONS	DATE	BY

<b>KGS GROUP</b> CONSULTING ENGINEERS	
DESIGNED BY: KRD	CHECKED BY: CMS
DRAWN BY: FBV	APPROVED BY: KRD
SCALE: AS NOTED	RELEASED FOR CONSTRUCTION: [Signature]
DATE: 16/06/29	DATE: 7-9-17

ENGINEER'S SEAL  
  
 CONSULTANT DRAWING NO. 11-0107-18\_S302

**THE CITY OF WINNIPEG**  
 WATER AND WASTE DEPARTMENT  
 PROJECT TITLE: COCKBURN/CALROSSIE COMBINED SEWER RELIEF WORKS  
 STORMWATER RETENTION BASIN INLET CONTROL CHAMBER  
 GENERAL ARRANGEMENT SECTIONS

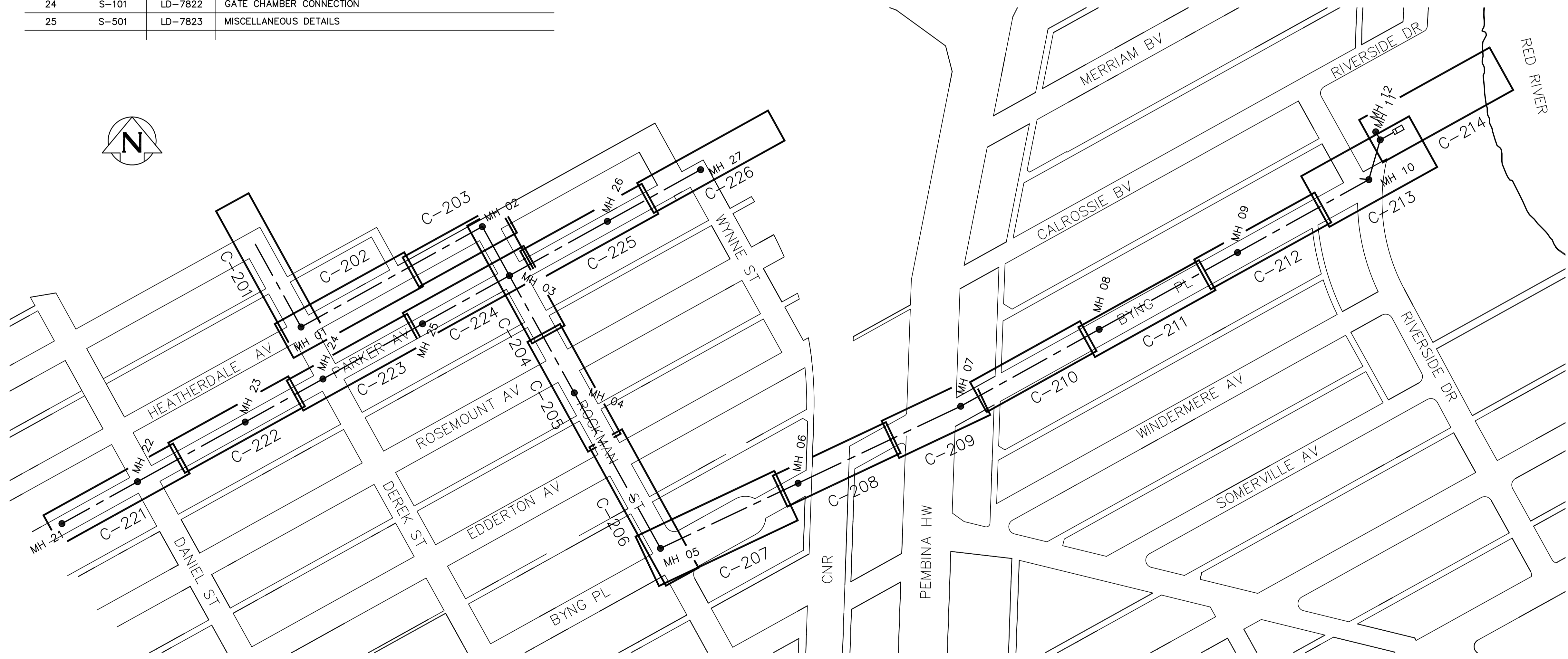
SHEET	1	OF	1
COMPUTER FILE NAME	11-0107-18_S302		
CITY DRAWING NUMBER	LD-8226		

**METRIC**  
 DECIMALIZED NUMBERS INDICATE METRES  
 WHOLE NUMBERS INDICATE MILLIMETRES

DRAWING INDEX

SHEET NUMBER	CONSULTANT DRAWING NUMBER	CITY DRAWING NUMBER	DRAWING TITLE
1	D-001	LD-7799	COVER
2	D-002	LD-7800	GENERAL PLAN AND MANHOLE SCHEDULE
3	C-201	LD-7801	DEREK STREET - FROM STA 0+900 TO HEATHERDALE AV
4	C-202	LD-7802	HEATHERDALE AVENUE - FROM DEREK STREET TO STA 1+170
5	C-203	LD-7803	HEATHERDALE AVENUE - FROM STA 1+170 TO ROCKMAN STREET
6	C-204	LD-7804	ROCKMAN STREET - FROM HEATHERDALE AV TO STA 1+340
7	C-205	LD-7805	ROCKMAN STREET - FROM STA 1+340 TO STA 1+440
8	C-206	LD-7806	ROCKMAN STREET - FROM STA 1+440 TO BYNG PLACE
9	C-207	LD-7807	BYNG PLACE - FROM ROCKMAN STREET TO STA 1+650
10	C-208	LD-7808	BYNG PLACE - CNR CROSSING
11	C-209	LD-7809	BYNG PLACE - PEMBINA HIGHWAY CROSSING
12	C-210	LD-7810	BYNG PLACE - FROM STA 1+830 TO STA 1+930
13	C-211	LD-7811	BYNG PLACE - FROM STA 1+930 TO STA 2+040
14	C-212	LD-7812	BYNG PLACE - FROM STA 2+040 TO STA 2+150
15	C-213	LD-7813	BYNG PLACE - FROM STA 2+150 TO MH 11
16	C-214	LD-7814	BYNG PLACE - FROM MH 11 TO EXISTING GATE CHAMBER
17	C-221	LD-7815	PARKER AVENUE - FROM STA 1+000 TO STA 1+110
18	C-222	LD-7816	PARKER AVENUE - FROM STA 1+110 TO STA 1+220
19	C-223	LD-7817	PARKER AVENUE - FROM STA 1+220 TO STA 3+330
20	C-224	LD-7818	PARKER AVENUE - FROM STA 1+330 TO STA 1+440
21	C-225	LD-7819	PARKER AVENUE - FROM STA 1+440 TO STA 1+550
22	C-226	LD-7820	PARKER AVENUE - FROM STA 1+550 TO MH 027
23	C-501	LD-7821	MISCELLANEOUS DETAILS
24	S-101	LD-7822	GATE CHAMBER CONNECTION
25	S-501	LD-7823	MISCELLANEOUS DETAILS

REFERENCE	NORTHING	EASTING
MH 01	5523565.542	632276.010
MH 02	5523647.993	632424.814
MH 03	5523607.740	632447.050
MH 04	5523511.503	632500.326
MH 05	5523383.794	632571.083
MH 06	5523437.284	632684.060
MH 07	5523500.510	632817.600
MH 08	5523563.631	632931.247
MH 09	5523626.753	633044.894
MH 10	5523686.595	633152.636
MH 11	5523719.266	633161.982
MH 12	5523725.817	633158.344
MH 21	5523404.131	632079.704
MH 22	5523438.551	632141.803
MH 23	5523487.514	632230.141
MH 24	5523522.903	632293.989
MH 25	5523568.231	632375.768
MH 26	5523652.340	632527.517
MH 27	5523694.760	632604.047

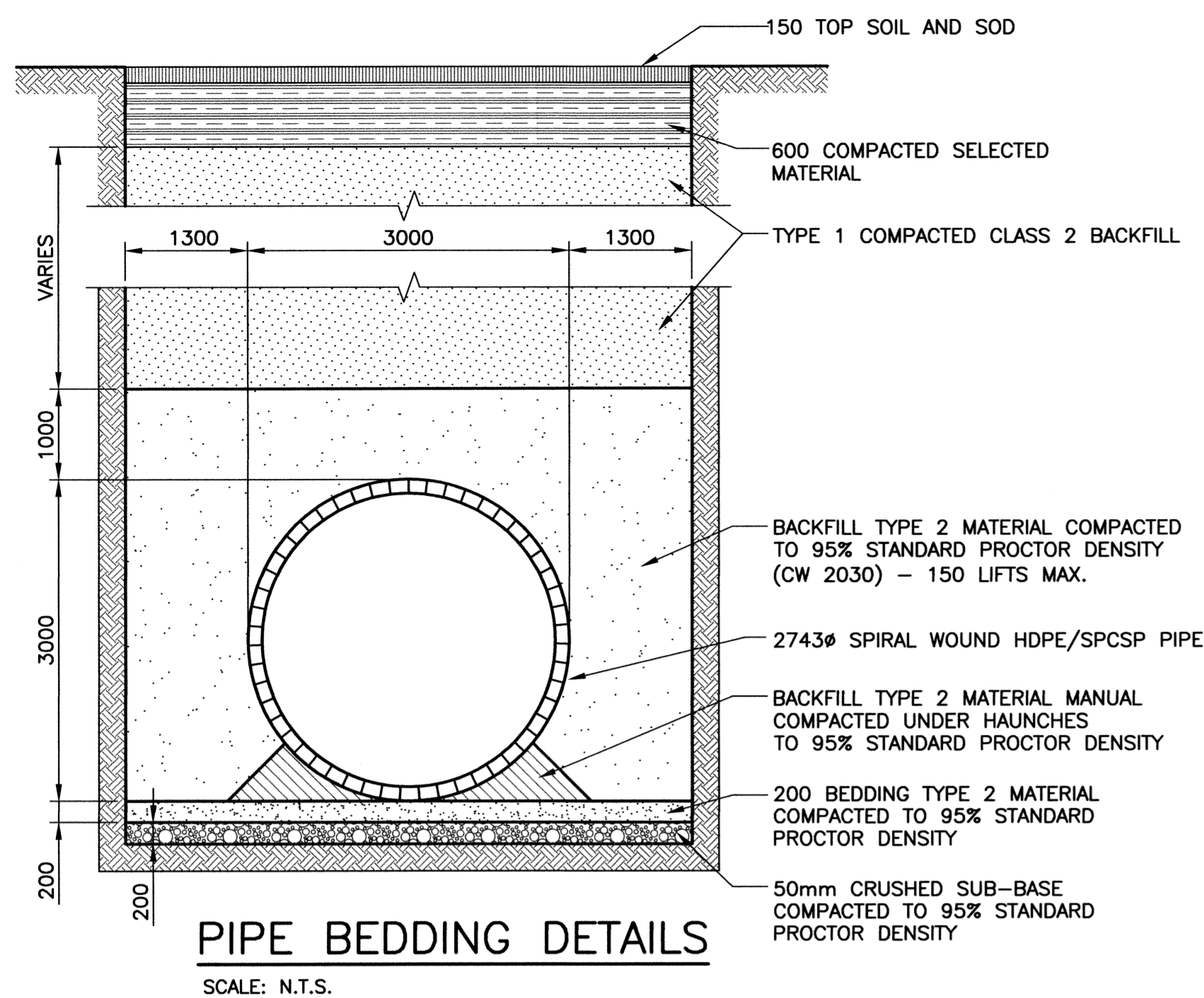


KEY MAP

**APEGM**  
 Certificate of Authorization  
 CH2M HILL Canada Ltd.  
 No. 1441 Date: February 26, 2016

B.M. ELEV. CONSTRUCTION COMPLETION DATE: YYYY MM DD				ENGINEER'S SEAL 			
		DESIGNED BY: SDG	CHECKED BY: MAF	CONSULTANT DRAWING NUMBER <b>D-002</b>		SHEET 2 OF 25 CITY DRAWING NUMBER <b>LD-7800</b>	
		DRAWN BY: JBC	APPROVED BY: ES				
		SCALE: HORIZONTAL 1:250 VERTICAL 1:50	RELEASED FOR CONSTRUCTION			GENERAL PLAN AND MANHOLE SCHEDULE	
0 ISSUED FOR TENDER 02/2016 JBC NO. REVISIONS DATE BY		DATE	DATE				

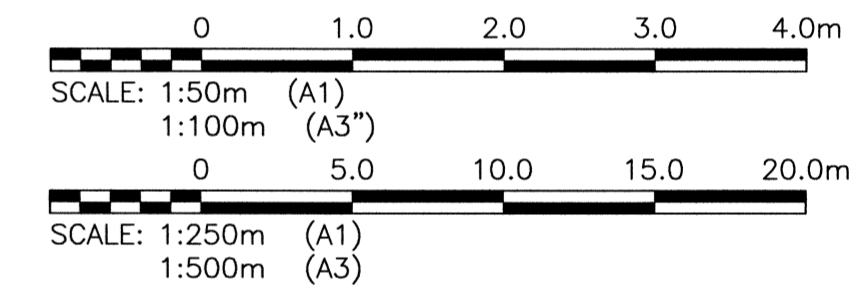
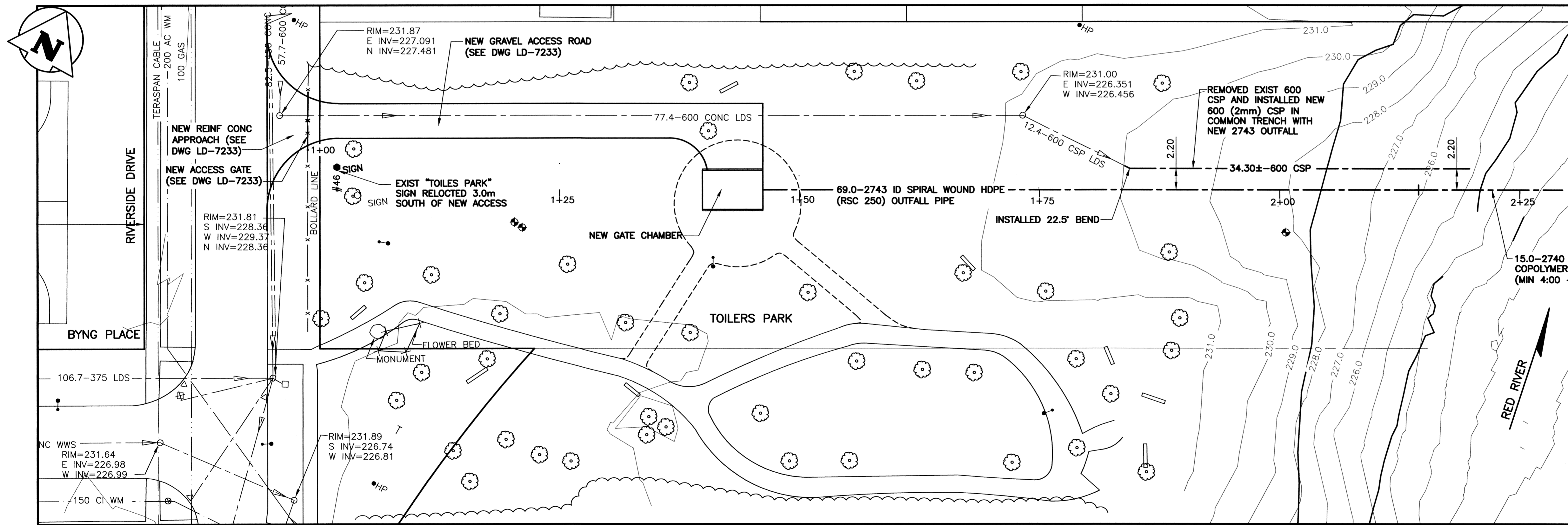
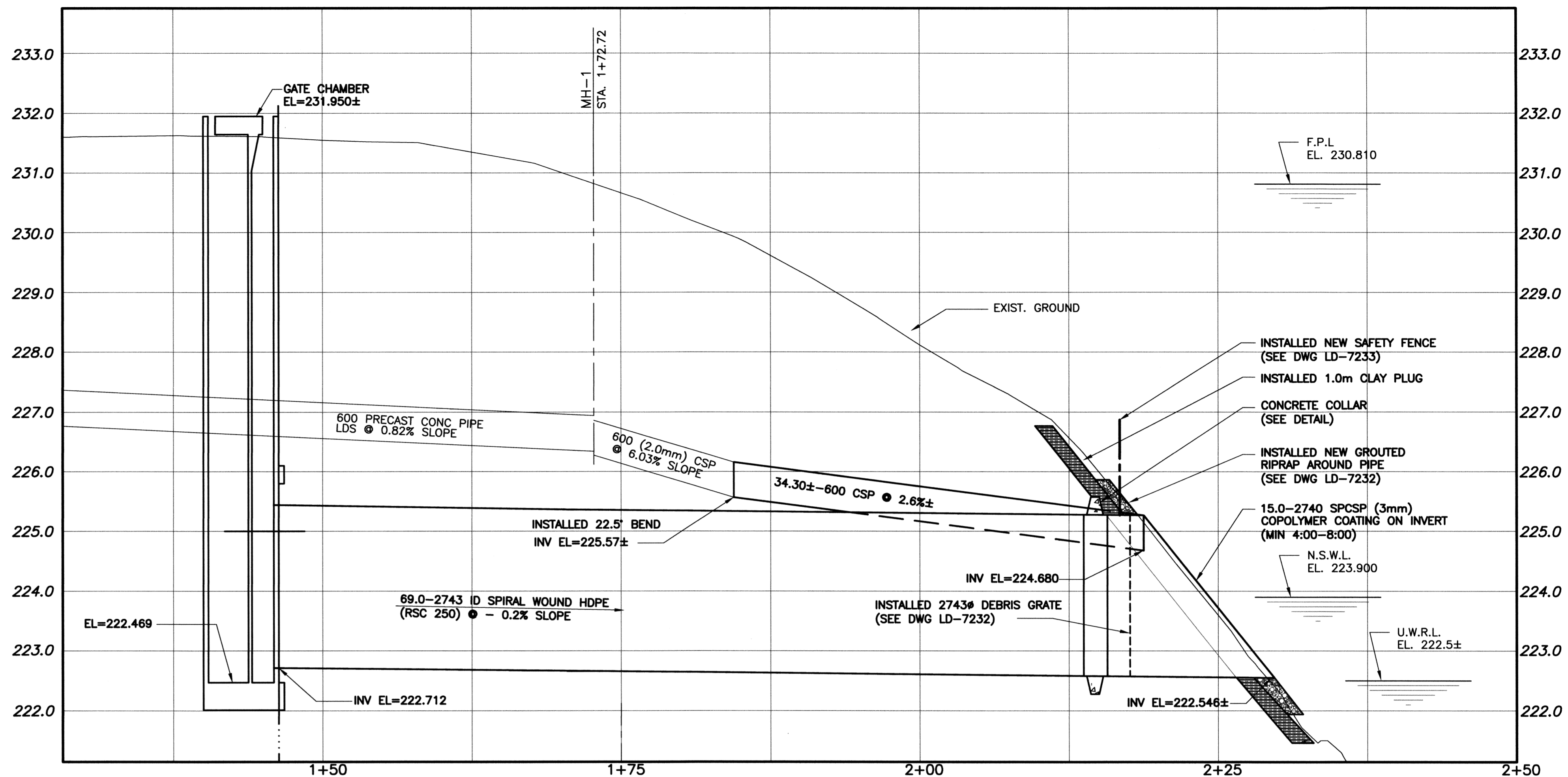
File Name: P:\Projects\2011\11-0107-18\Drawings\Master Bid of DWGS\BID OF NO 915-2013\CALROSSIE OUTFALL PLOT.dwg - Tab: LD-7231 Plotted By: dweber 15/07/08 [Wed 3:14pm]



# RECORD DRAWING

## WATER & WASTE DEPARTMENT

PROJECT COMPLETION DATE: 2014/11/07  
CONTRACTOR: TRI-CORE PROJECTS MANITOBA LTD.



MATERIAL LIST		
ITEM	MANUFACTURER	REMARKS
2743 ID HDPE	KWH WEHOLITE	-
2740 SPCSP	ATLANTIC INDUSTRIES INC.	-
600 CSP	ATLANTIC INDUSTRIES INC.	-

**PROPERTY LIMITS DELINEATION**  
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**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**BYNG PLACE OUTFALL RR-37B**

150 WM	WATERMAIN	150 WM	HYDRO	M.T.S.	LOCATION APPROVED UNDERGROUND STRUCTURES
+	HYDRANT VALVE	+	PROPERTY LINE	---	SUPV. U/G STRUCTURES COMMITTEE
○	LAND DRAINAGE SEWER	○	SURVEY BAR	---	DATE
○	WASTE WATER SEWER	○	LIGHT STANDARD	---	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.
○	MANHOLE	○	HYDRO POLE	---	
○	CATCH BASIN	○	GUY WIRE	---	
○	CURB INLET	○	SIGN	---	
○	JUNCTIONS	○	BUSH LINE	---	
○	CULVERT	○	FENCE	---	
○	GAS	○	ELEVATION	---	
---	EXISTING	---	LEGEND-PLAN	---	
---	LEGEND-PLAN	---	PROPOSED	---	
---	PROPOSED	---	EXISTING	---	
---	EXISTING	---	LEGEND-PROFILE	---	
---	PROPOSED	---	PROPOSED	---	
---	EXISTING	---	EXISTING	---	

NO.	REVISIONS	DATE	BY
2	RECORD DRAWING	15/07/10	RBO
1	ISSUED FOR CONSTRUCTION	14/01/07	RBO
0	ISSUED FOR TENDER	13/11/06	RBO

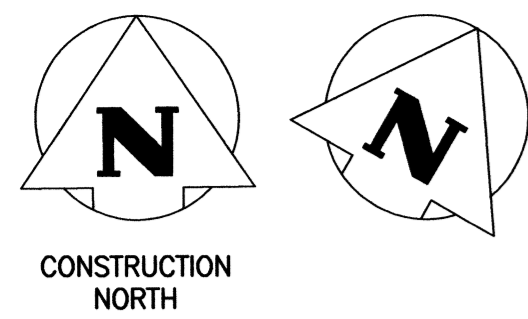
DESIGNED BY	CHECKED BY
RBO	RJH
DRAWN BY	APPROVED BY
DMW	
HOR. SCALE:	VERTICAL:
1:250	1:50
RELEASED FOR CONSTRUCTION:	DATE
	13/10/31

ENGINEER'S SEAL  
PROFESSOR OF ENGINEERING  
R.B. OFFMAN  
Member  
24701  
REGISTERED PROFESSIONAL ENGINEER

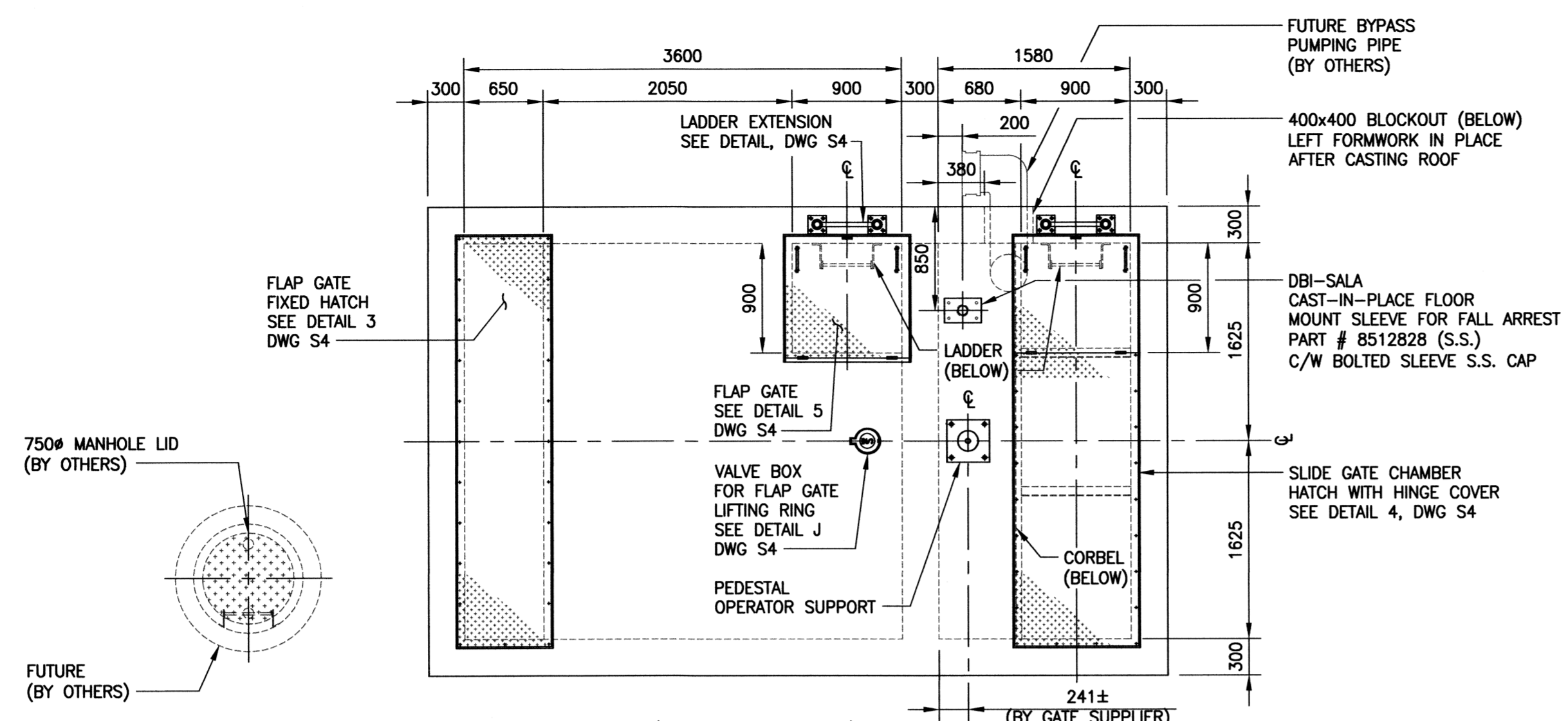
**THE CITY OF WINNIPEG**  
WATER & WASTE DEPARTMENT

**COCKBURN CALROSSIE**  
**COMBINED SEWER RELIEF WORKS**  
NEW BYNG OUTFALL (RR-37B)  
PLAN AND PROFILE

SHEET 01 OF 01  
CAD FILE DRAWING NUMBER CALROSSIE OUTFALL PLOT  
CITY DRAWING NUMBER LD-7231

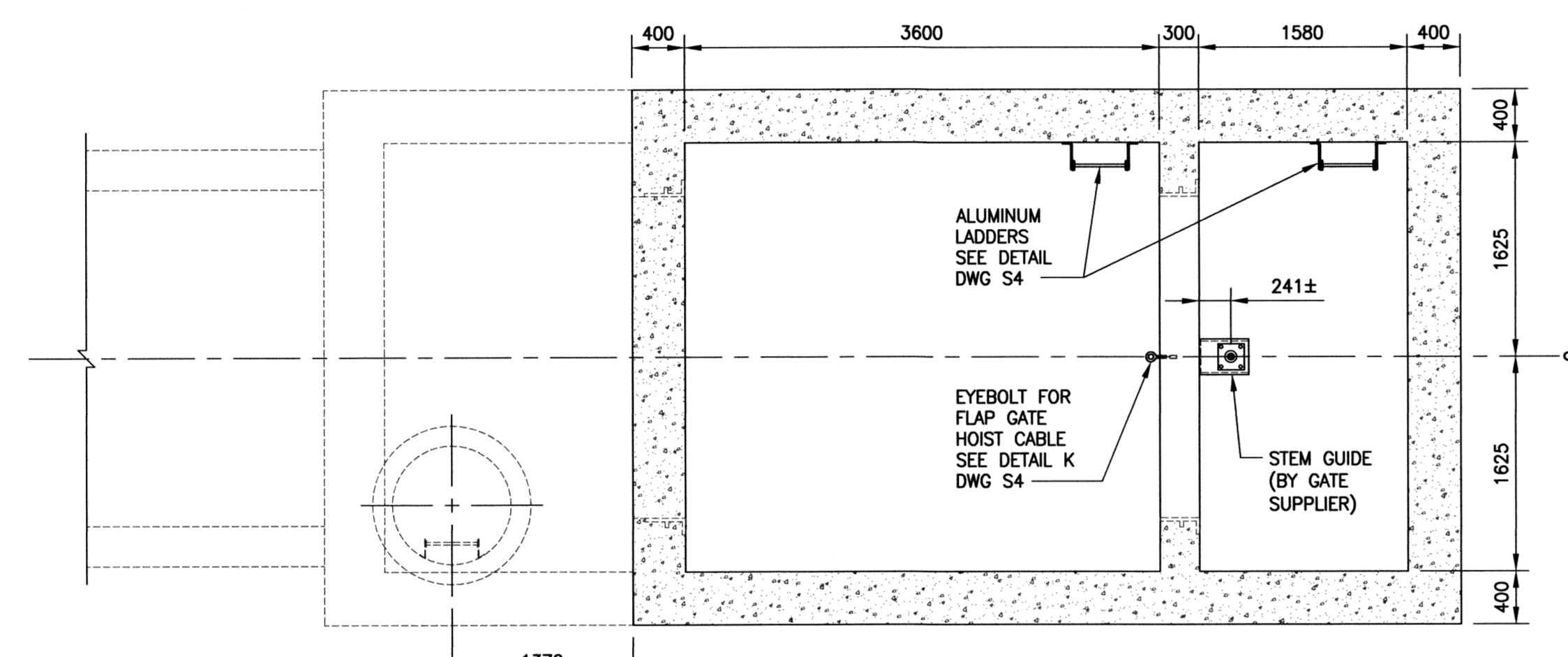


CONSTRUCTION NORTH



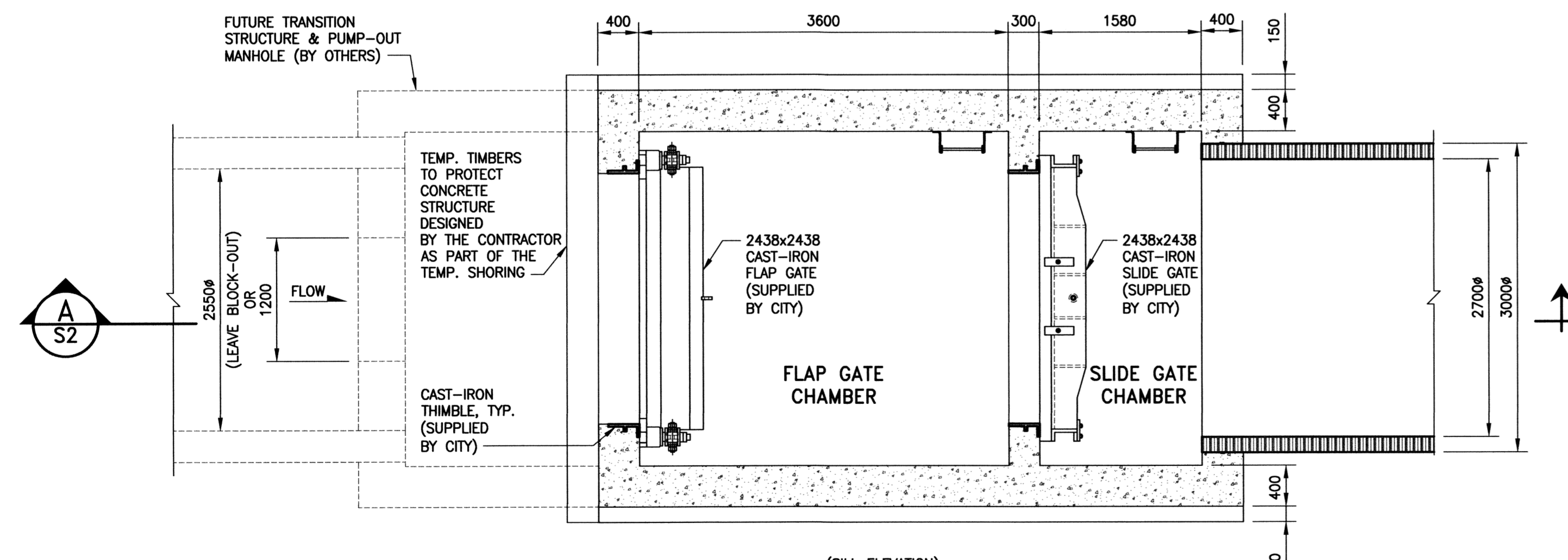
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SCALE: 1:40



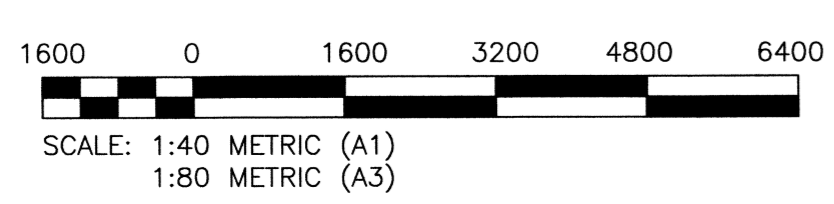
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SCALE: 1:40



PLAN - EL. 222.712

SCALE: 1:40



**LOCATION APPROVED UNDERGROUND STRUCTURES**

SUPV. U/G STRUCTURES COMMITTEE DATE

NOTE:  
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B.M. KGS BASE ELEV. -	DWGS BASED ON C.S.R.S. NAD 83 SYSTEM, UTM GRID		
NO.	REVISIONS	DATE	BY
2	RECORD DRAWING	15/07/10	CMS
1	ISSUED FOR CONSTRUCTION	14/01/17	CMS
0	ISSUED FOR TENDER	13/11/06	CMS
NO.	REVISIONS	DATE	BY
		13/10/16	

**KGS GROUP CONSULTING ENGINEERS**

DESIGNED BY: KRD  
CHECKED BY: CMS  
DRAWN BY: FBV  
APPROVED BY:  
SCALE: AS NOTED  
RELEASED FOR CONSTRUCTION:  
DATE: 13/10/16

ENGINEER'S SEAL  
C.M. SIEPMAN  
Member 20813  
CONSULTANT DRAWING NO. 11-0107-18\_S1

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

PROJECT TITLE: COCKBURN/CALROSSIE COMBINED SEWER RELIEF WORKS NEW BNYG PLACE GATE CHAMBER (RR37B) STRUCTURAL PLANS

SHEET 01 OF 01  
COMPUTER FILE NAME: 11-0107-18\_S1  
CITY DRAWING NUMBER: LD-7236

**GENERAL NOTES:**

- THIS STRUCTURE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 9 OF THE NATIONAL BUILDING CODE (LATEST).
- ALL SPECIFICATIONS AND CODES SPECIFIED ARE THE LATEST REVISION AVAILABLE.
- DESIGN LOADS ARE AS FOLLOWS:  
FLOOR LIVE LOADS: 3.60 kPa  
SNOW LOAD: 1.90 kPa  
FOUNDATION WALL LOADS:  
LIVE LOAD:  $q = 6.0 \text{ kPa}$  (SURCHARGE LOAD)  
SOIL LOAD:  $\gamma_{soil} = 18 \text{ kN/m}^3$   
AT REST LATERAL EARTH PRESSURE COEFFICIENT:  $K_0 = 0.70$   
LATERAL PRESSURE ON WALL,  $P = K_0(\gamma_{soil}xH + q)$ , WHERE H = HEIGHT OF SOIL
- DESIGN FLOOD LEVEL 1/700 YEAR EVENT: 230.810m.

**SURVEY NOTES:**

- REFER TO MUNICIPAL DWG LD-7231 FOR SURVEY DETAILS.

**REINFORCING STEEL:**

- REINFORCING STEEL IS NEW DEFORMED BILLET STEEL BARS CONFORMING TO CSA G30.18 (LATEST). GRADE TO BE 400 MPa.
- BENT ALL HORIZONTAL REINFORCING 305mm AROUND CORNERS OR PROVIDE ADDITIONAL 610mm X 610mm ANGLE BARS.
- PROVIDED MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:  
BASE SLAB (EXTERIOR FACES) 75mm  
BASE SLAB (INTERIOR FACES) 50mm  
FOUNDATION WALLS (EXTERIOR FACE) 75mm  
FOUNDATION WALLS (INTERIOR FACE) 50mm  
CHAMBER ROOF SLAB (TOP & BOTTOM) 50mm  
INTERIOR WALLS 50mm

**STRUCTURAL AND MISCELLANEOUS STEEL:**

- STRUCTURAL AND MISCELLANEOUS STEEL FABRICATION AND ERECTION ARE IN ACCORDANCE WITH CAN/CSA S16 (LATEST).
- STRUCTURAL STEEL MET THE REQUIREMENTS OF CAN/CSA G40.20/G40.21 (LATEST).  
ROLLED SHAPES & PLATES CSA G40.21-300W
- WELDING IS IN ACCORDANCE WITH CSA W59 (LATEST), BY WELDERS CERTIFIED AND QUALIFIED IN ACCORDANCE WITH CSA W47.1 (LATEST). ALL WELDS ARE 6mm UNLESS NOTED OTHERWISE.
- STRUCTURAL AND MISCELLANEOUS IS FINISHED AS INDICATED BELOW, UNLESS OTHERWISE NOTED, OR APPROVED EQUAL:  
GALVANIZED STEEL  
- SURFACE PREP. TO SP8 (PICKLING)  
- HOT DIPPED GALVANIZED TO CAN/CSA G164 (LATEST).

**CONCRETE:**

- CONCRETE MATERIALS AND WORKMANSHIP ARE IN ACCORDANCE WITH CSA A23.1 (LATEST). SEE BELOW FOR MIX REQUIREMENTS.
- DESIGN, FABRICATE AND ERECT FORMWORK/SHORING IN ACCORDANCE WITH CAN/CSA-S269.3 (LATEST).
- CONCRETE FINISHING MET THE REQUIREMENTS OF CSA A23.1 (LATEST).
- FORM RELEASE AGENT IS BIODEGRADABLE, NON-STAINING AND NON-VOLATILE.
- PLACED AND SECURED ALL EMBEDDED ANCHORS, WELD PLATES, SLEEVES, BUCKS, DOWELS, INSERTS, WATERSTOPS, ETC., PRIOR TO PLACING CONCRETE.
- LOCATED AND FABRICATED ALL CONSTRUCTION JOINTS, CONTROL JOINTS AND EXPANSION JOINTS AS DETAILED ON THE DRAWINGS. JOINTS NOT SHOWN WERE APPROVED BY THE DESIGN ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE.
- WATERSTOP IS HYDROTITE CJ-0725-3K OR APPROVED ALTERNATE NON-BENTONITE WATERSTOP.
- ALL EXPOSED CORNERS HAVE 25mm CHAMFER FILLET UNLESS NOTED.
- ADHESIVE ANCHORS ARE HILTI HAS RODS COMPLETE WITH HY150 ADHESIVE OR APPROVED EQUAL, UNLESS NOTED.
- THE CONCRETE SUPPLIER WAS CERTIFIED TO MEET THE REQUIREMENTS OF CSA A23.1.

**CONCRETE MIX DESIGNS:**

CONCRETE MIX DESIGN WAS PROPORTIONED TO MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:

EXPOSURE CLASS	S-1
MIN. 28 DAY COMP. STRENGTH	35 MPa
CEMENT TYPE	TYPE 50 (HS)
MAX. W/C RATIO	0.40
MAX. AGGREGATE SIZE	20mm
ENTRAINED AIR CONTENT	5% TO 8%
MAXIMUM SLUMP	80mm±20mm

**ALUMINUM:**

- ALUMINUM IS IN ACCORDANCE WITH CAN/CSA S517 AND THE ALUMINUM ASSOCIATION "SPECIFICATION FOR ALUMINUM STRUCTURES". ALUMINUM FOR PLATES AND EXTRUDED SHAPES SHALL BE TYPE 6061-T651.
- ALUMINUM WELDING IS IN ACCORDANCE WITH CSA W59.2 (LATEST) BY WELDERS CERTIFIED AND QUALIFIED IN ACCORDANCE WITH CSA W47.2 (LATEST). ALL WELDS ARE 6mm UNLESS OTHERWISE NOTED.
- INSTALLED NYLITE ELECTROCHEMICAL ISOLATION GASKETS TO ELECTRICALLY ISOLATE DISSIMILAR METALS (SUPPLIER: SPAENAUR).
- ALL ALUMINUM IN CONTACT WITH CONCRETE OR CAST INTO CONCRETE HAS BITUMINOUS ISOLATION COATING.
- ALL NUTS, BOLTS AND WASHERS ARE STAINLESS STEEL & TYPE 316. MEETING ASTM F593/F738M.

**RECORD DRAWING**  
WATER & WASTE DEPARTMENT

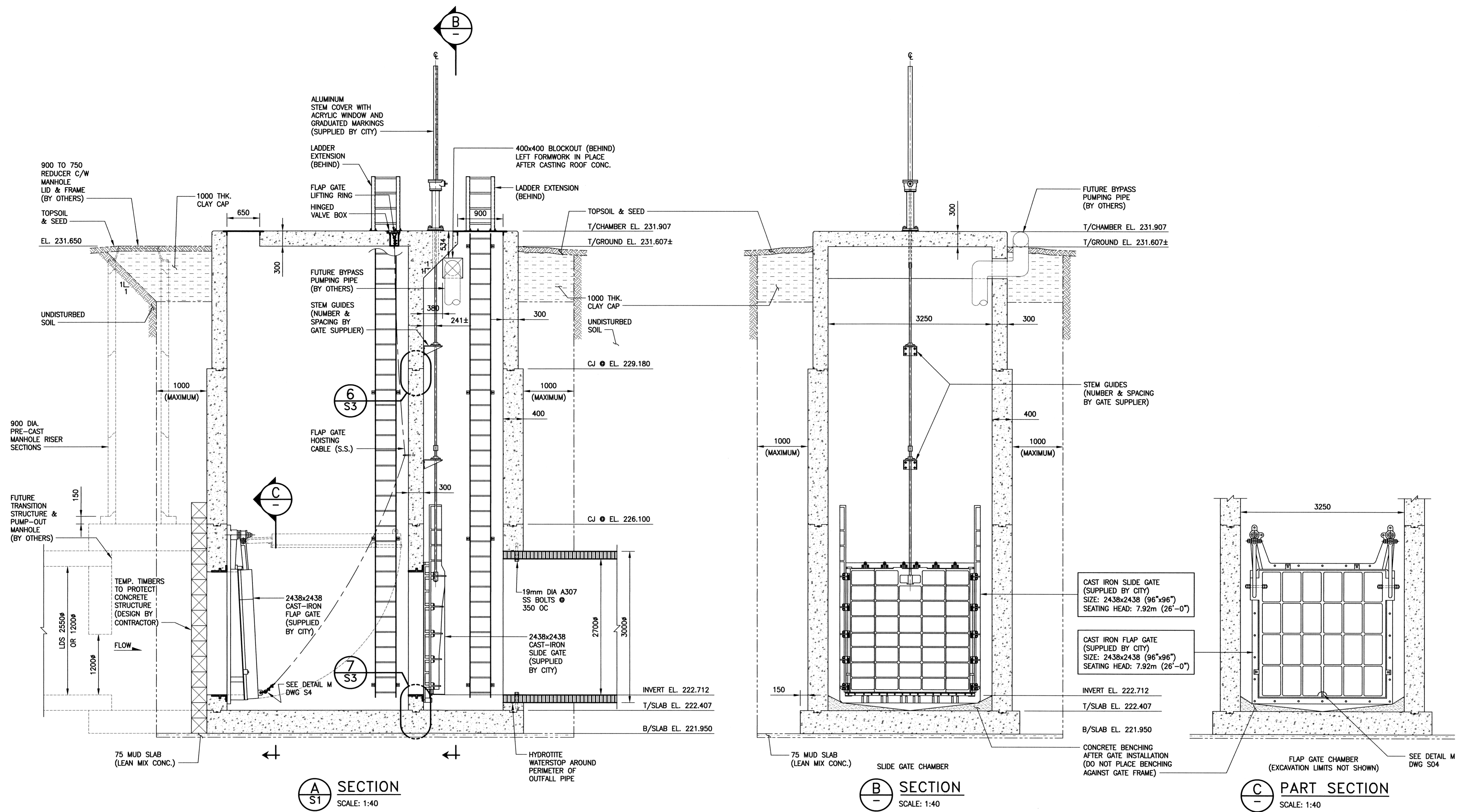
PROJECT COMPLETION DATE: 2014/11/07  
CONTRACTOR: TRI-CORE PROJECTS MANITOBA LTD.

MATERIAL LIST		
ITEM	MANUFACTURER	REMARKS
GATE CHAMBER	J.C. PAVING LTD.	
CONTROL GATES	POWER AND MINE SUPPLY LTD	UNDER CITY OF WINNIPEG BID OPPORTUNITY 651-2013
LADDER	A-POST ALUMINUM FABRICATORS INC.	
HATCH	A-POST ALUMINUM FABRICATORS INC.	

**METRIC**  
DECIMALIZED NUMBERS INDICATE METRES  
WHOLE NUMBERS INDICATE MILLIMETRES

File Name: P:\Projects\2011\11-0107-18\DWG\Struct\11-0107-18\_LD-7236.dwg - Tab: LD-7236 Plotted By: qweber 07/08/2015 [Wed 3:26pm]

File Name: P:\Projects\2011\11-0107-18\DWG\Struct\11-0107-18\_LD-7237.dwg - Tab: LD-7237 Plotted By: dweber 07/08/2015 [Wed 3:27pm]



**A** SECTION  
SCALE: 1:40

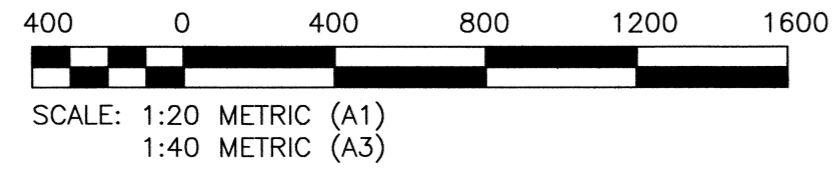
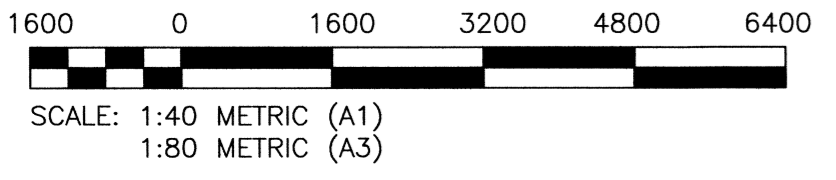
**B** SECTION  
SCALE: 1:40

**C** PART SECTION  
SCALE: 1:40

**RECORD DRAWING**  
WATER & WASTE DEPARTMENT

PROJECT COMPLETION DATE: 2014/11/07  
CONTRACTOR: TRI-CORE PROJECTS MANITOBA LTD.

MATERIAL LIST		
ITEM	MANUFACTURER	REMARKS
GATE CHAMBER	J.C. PAVING LTD.	
CONTROL GATES	POWER AND MINE SUPPLY LTD	UNDER CITY OF WINNIPEG BID OPPORTUNITY 651-2013
LADDER	A-POST ALUMINUM FABRICATORS INC.	



**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	DATE
1	ISSUED FOR CONSTRUCTION	14/01/17	CMS	
0	ISSUED FOR TENDER	13/11/06	CMS	
2	RECORD DRAWING	15/07/10	CMS	

**KGS GROUP**  
CONSULTING ENGINEERS

DESIGNED BY: KRD  
DRAWN BY: FBV  
SCALE: AS NOTED

CHECKED BY: CMS  
APPROVED BY: [Signature]  
RELEASED FOR CONSTRUCTION: [Signature]

DATE: 13/10/16

ENGINEER'S SEAL  
C.M. SIEPMAN  
Member 20813  
CONSULTANT DRAWING NO. 11-0107-18\_S2

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

PROJECT TITLE: COCKBURN/CALROSSIE COMBINED SEWER RELIEF WORKS  
NEW BNYG PLACE GATE CHAMBER (RR37B)

STRUCTURAL SECTIONS

SHEET 01 OF 01  
COMPUTER FILE NAME: 11-0107-18\_S2  
CITY DRAWING NUMBER: LD-7237

METRIC  
DECIMALIZED NUMBERS INDICATE METRES