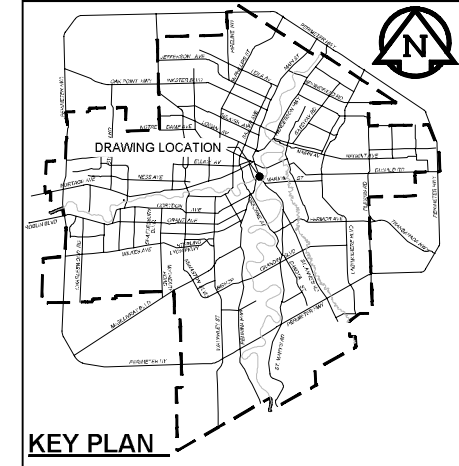


- NOTES:**
600mm FRM AND 500mm FRM TO BE INSPECTED AT RESPECTIVE LOCATIONS SHOWN.
- SEQUENCE OF WORK:**
1. REMOVE PIPE CLADDING AND INSULATION AT LOCATIONS SPECIFIED. REFER TO DETAIL.
2. PERFORM INSPECTION USING REMOTE FIELD TECHNOLOGY EM TOOLS AT EACH SPECIFIED LOCATION (BY OTHERS).
3. PERFORM ADDITIONAL ULTRASONIC THICKNESS MEASUREMENTS AS DIRECTED BY THE CONTRACT ADMINISTRATOR (BY OTHERS).
4. REHABILITATE PIPE COATINGS AS REQUIRED.
5. REINSTALL NEW INSULATION AND CLADDING. REFER TO DETAIL SHEET 13019.

**ENGINEERS
GEOCHEMISTS
MANTOIA**
Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: June 21, 2022



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

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

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.	
CONSTRUCTION COMPLETION DATE: YYYY MM DD	
ISSUED FOR TENDER	22/06/15 ADL
NO.	REVISIONS

AECOM

DESIGNED BY	TJB	CHECKED BY	MGM
DRAWN BY	ADL	APPROVED BY	KWF
SCALE:	HORIZONTAL AS NOTED		
	VERTICAL N/A		
RELEASED FOR CONSTRUCTION	Paul Bertoluzzi		
DATE	2022 06 21	DATE	Jun 21/22

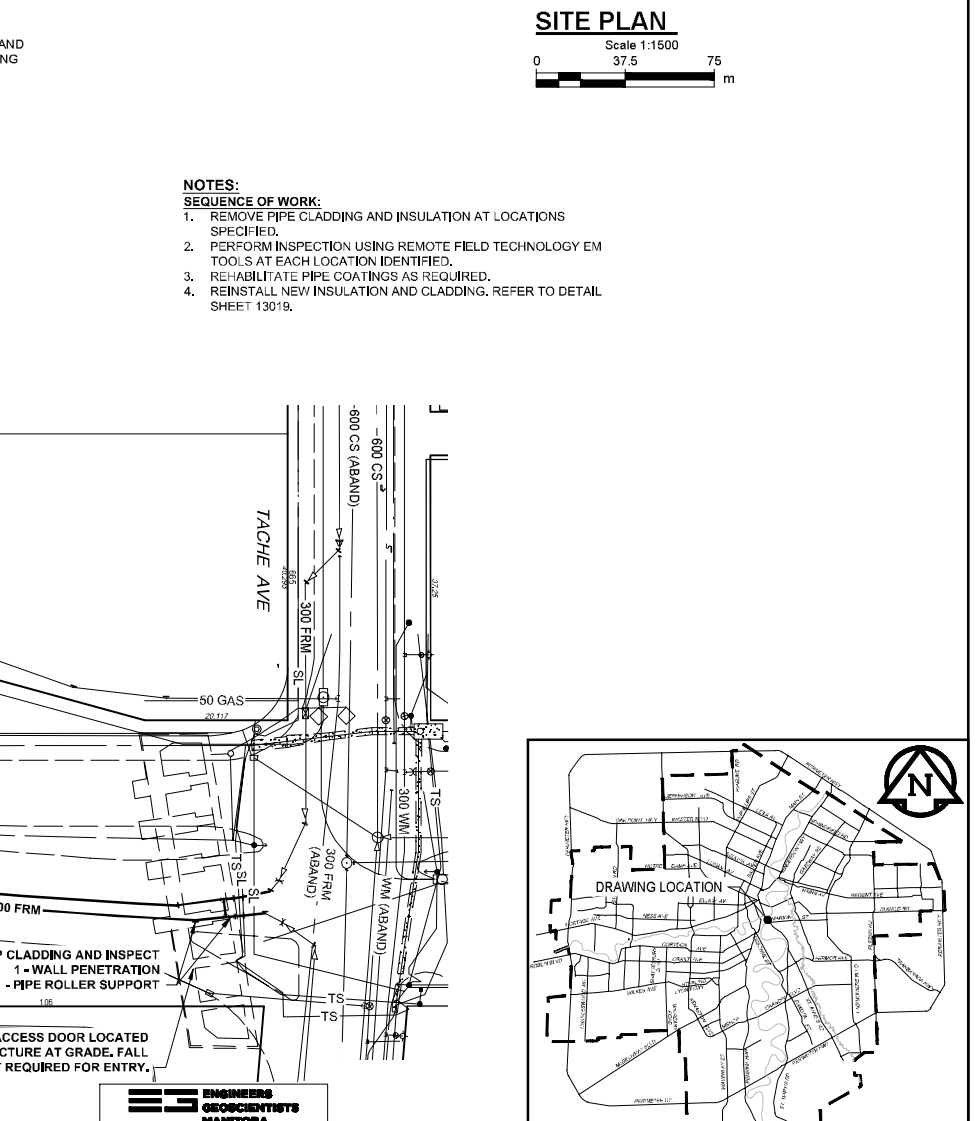
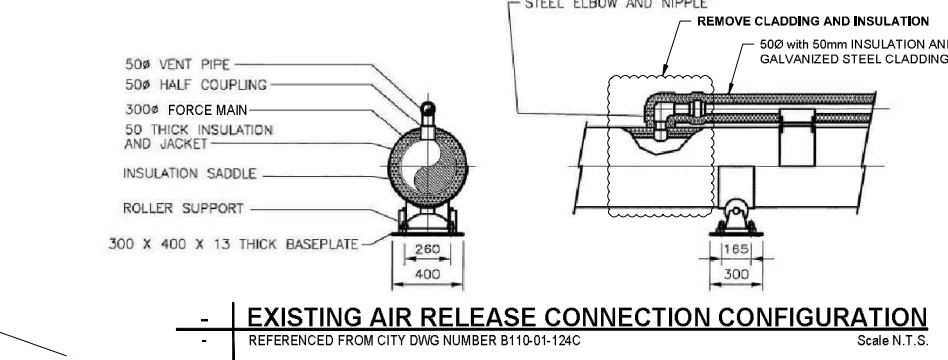
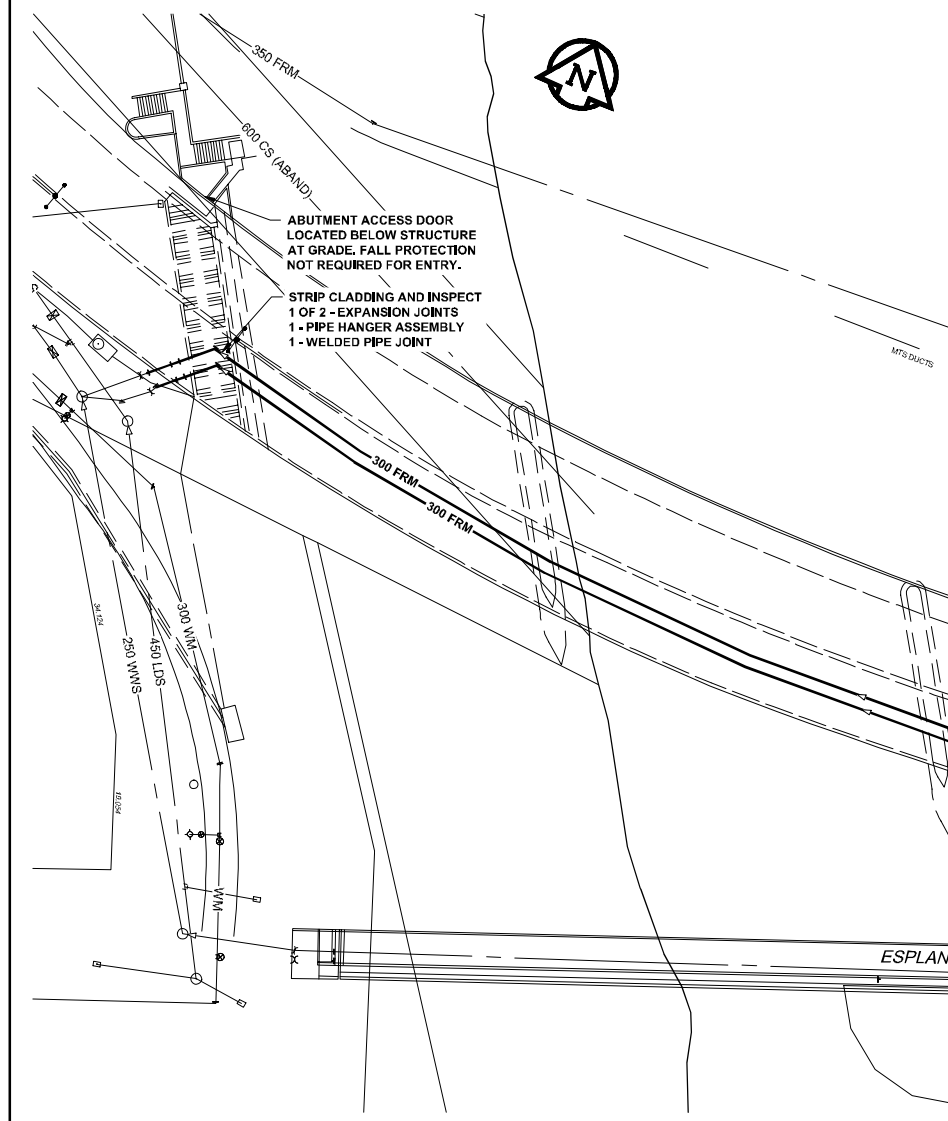
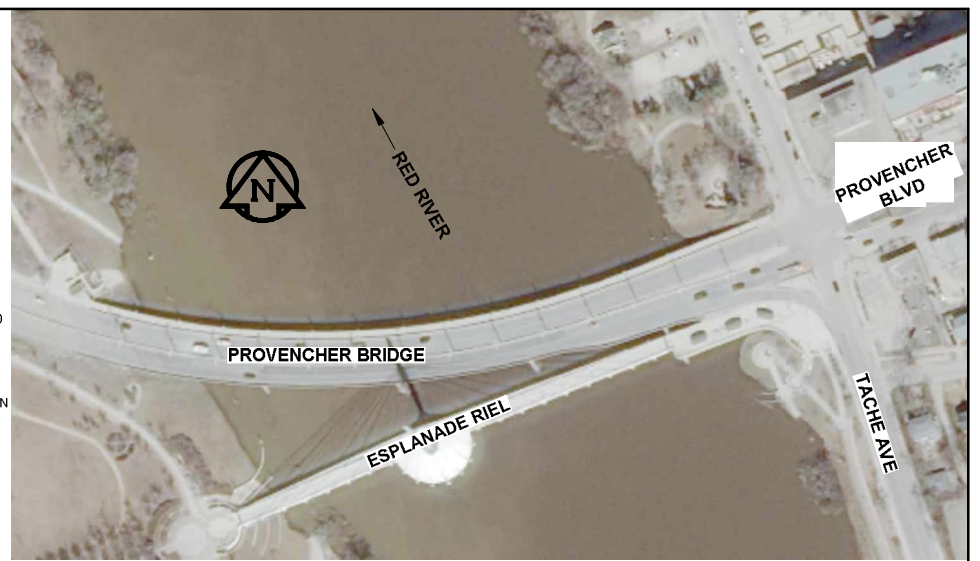
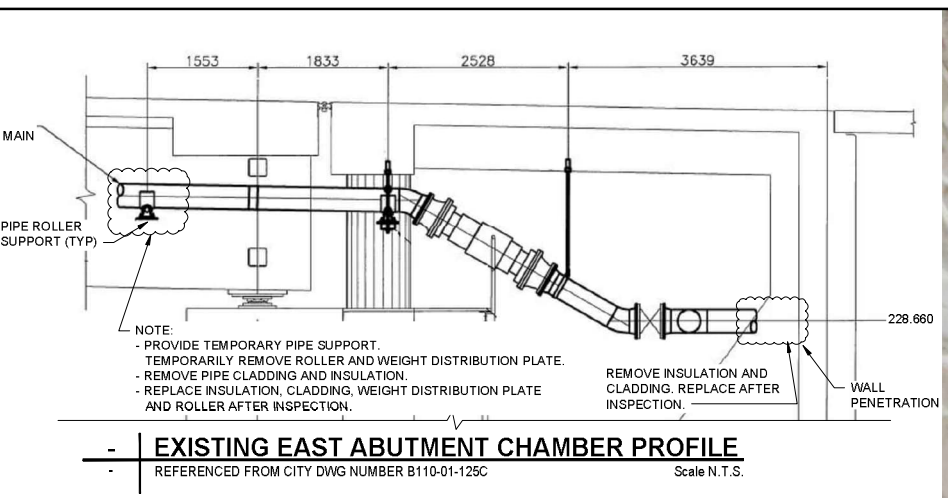
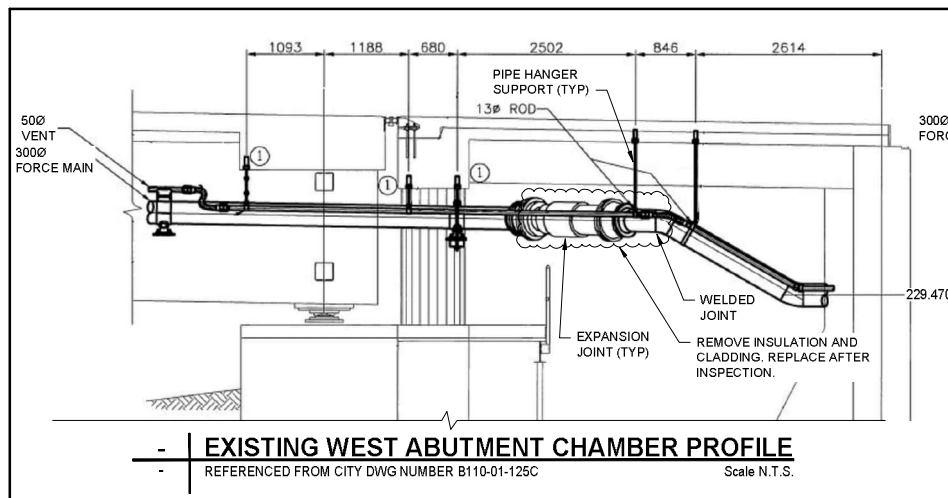
PLOT DATE: 2022 06 21

ENGINEER'S SEAL
ORIGINAL SIGNED BY J. Thompson
June 21, 2022
CONSULTANT DRAWING NUMBER
C-1001

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE
SITE 1
OLD FORS BRIDGE
FORCE MAINS

SHEET 02 OF 11
CITY DRAWING NUMBER
13017



NOTES:
SEQUENCE OF WORK:
1. REMOVE PIPE CLADDING AND INSULATION AT LOCATIONS SPECIFIED.
2. PERFORM INSPECTION USING REMOTE FIELD TECHNOLOGY EM TOOLS AT EACH LOCATION IDENTIFIED.
3. REHABILITATE PIPE COATINGS AS REQUIRED.
4. REINSTALL NEW INSULATION AND CLADDING. REFER TO DETAIL SHEET 13018.

ENGINEERS & GEOSCIENTISTS MANITOBA
Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: June 21, 2022

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

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. 84R505 N.W. Cor. Saskatchewan Ave. & Midland St. Tabl. on top of 0.05 m dia. x 1.2 m iron pipe 10.2 m S. of N.L. of Saskatchewan Ave. & 5.6 m E. of W.L. of Midland St.
ELEV. 233.144m
CONSTRUCTION COMPLETION DATE: YYYY MM DD

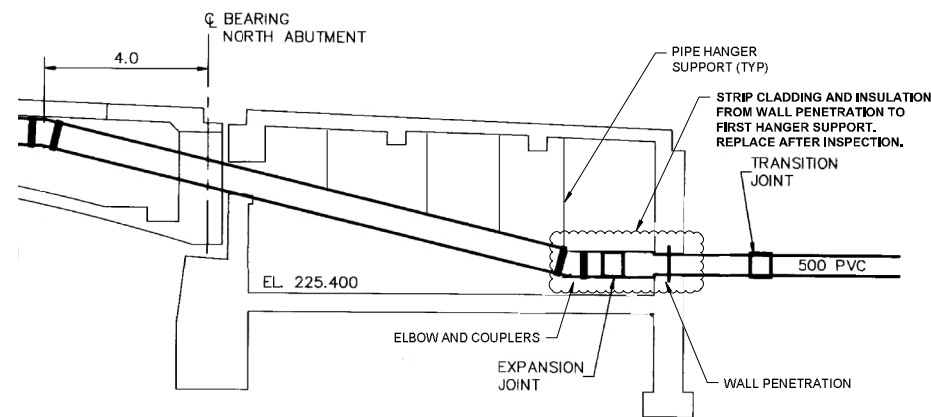
NO.	ISSUED FOR TENDER	REVISIONS	DATE	BY
0	ISSUED FOR TENDER		22/06/15	ADL

AECOM
DESIGNED BY: TJB
DRAWN BY: ADL
SCALE: HORIZONTAL AS NOTED VERTICAL N/A
CHECKED BY: MCM
APPROVED BY: KWF
RELEASED FOR CONSTRUCTION: Paul Bortoluzzi
DATE: Jun 21/22

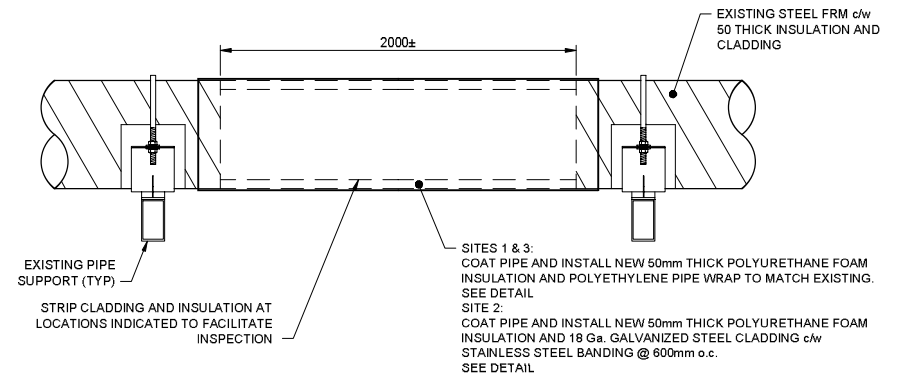
ENGINEER'S SEAL
ORIGINAL SIGNED BY J. Thompson
June 21, 2022
CONSULTANT DRAWING NUMBER: C-1002

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION
PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE
SITE 2
PROVENCHER BRIDGE
FORCE MAINS
SHEET 03 OF 11
CITY DRAWING NUMBER
13018

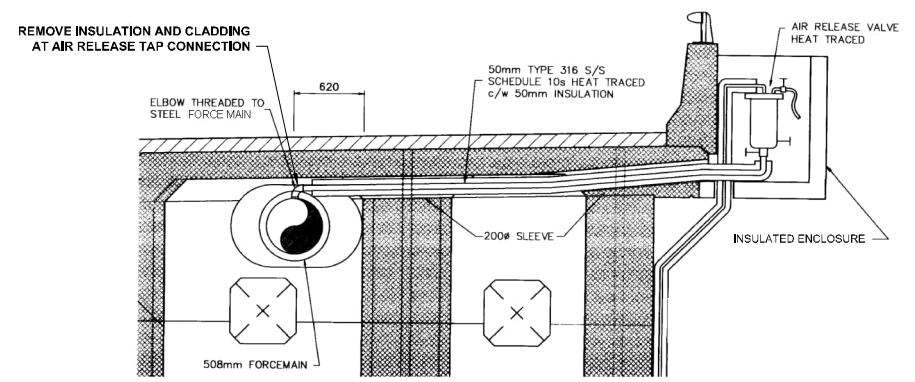
FILE PATH: C:\Users\jveppia\AppData\Local\Temp\AcPublish_23408\ FILE NAME: 60645745-SHT-30-0000-C-1002.dwg



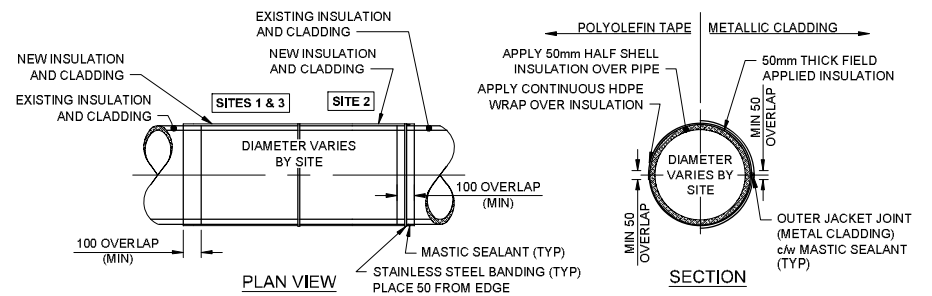
EXISTING NORTH ABUTMENT CHAMBER PROFILE
 REFERENCED FROM CITY DWG NUMBER B-5990-114 Scale N.T.S.



TYPICAL CLADDING REMOVAL DETAIL
 SITES 1, 2 & 3 Scale 1:20



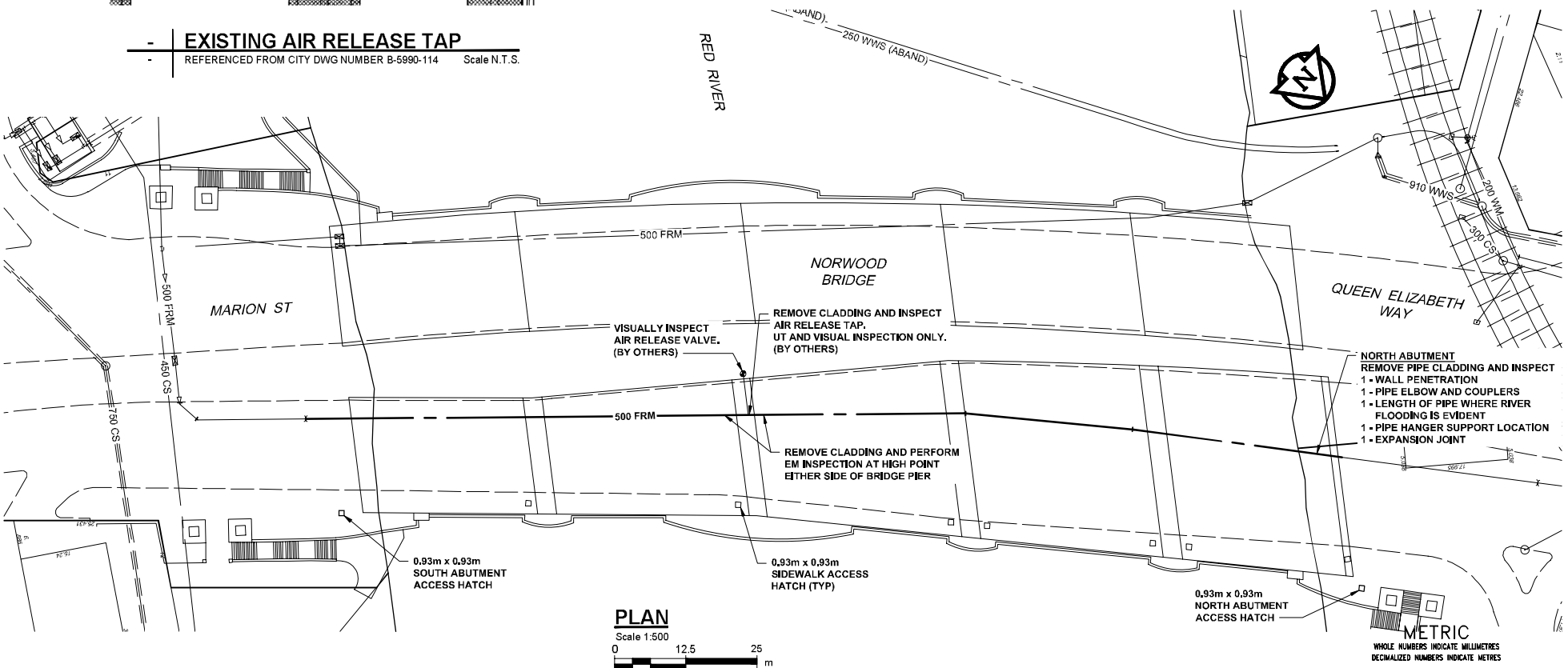
EXISTING AIR RELEASE TAP
 REFERENCED FROM CITY DWG NUMBER B-5990-114 Scale N.T.S.



FIELD INSULATION DETAIL
 SITES 1, 2 & 3 Scale 1:20

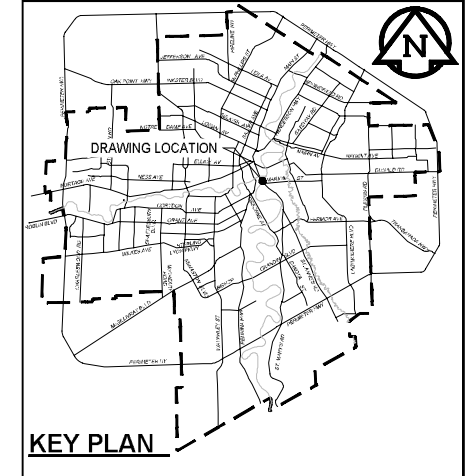


SITE PLAN
 Scale 1:1500
 0 37.5 75 m



PLAN
 Scale 1:500
 0 12.5 25 m

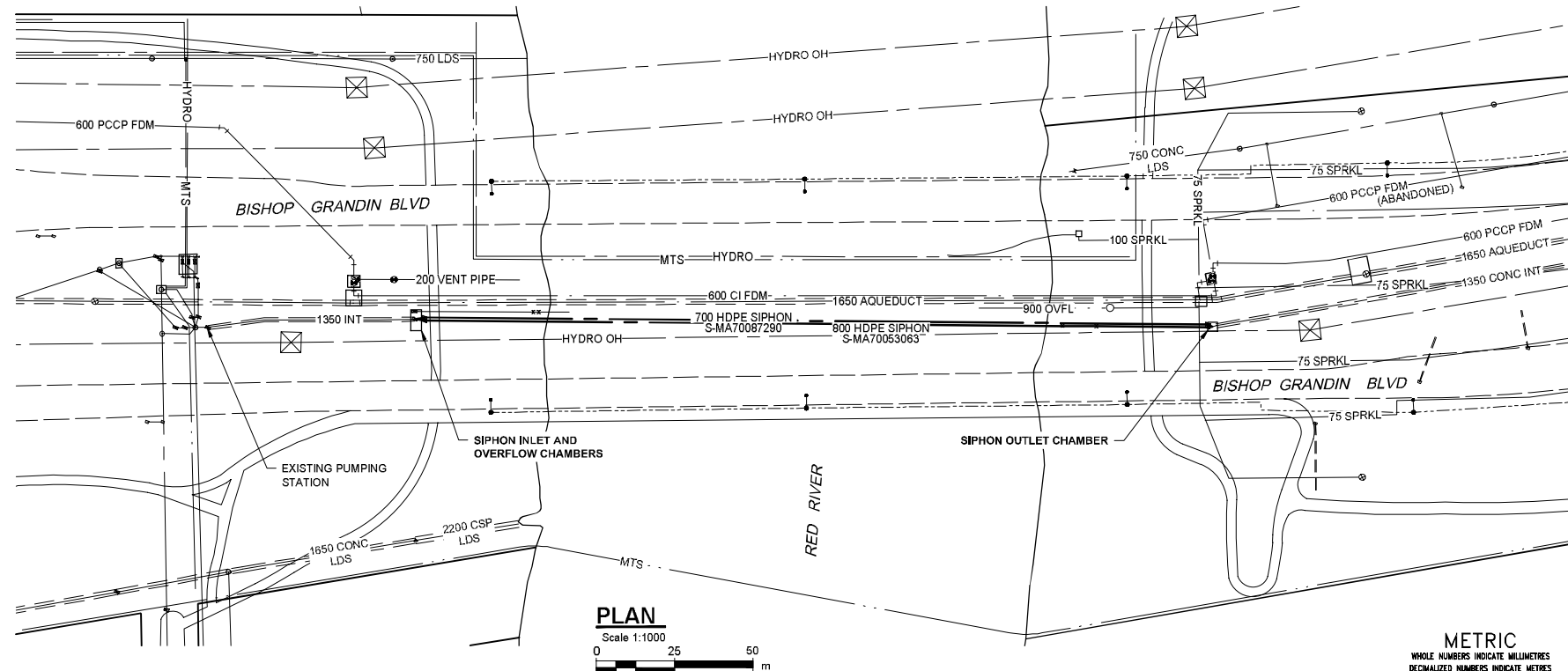
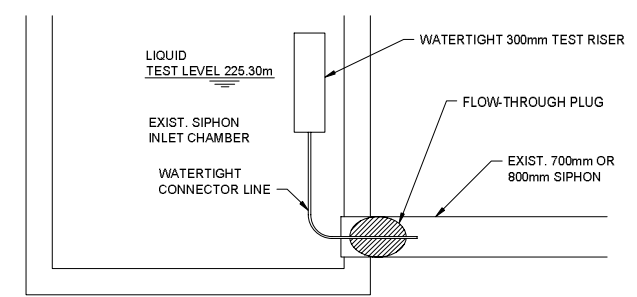
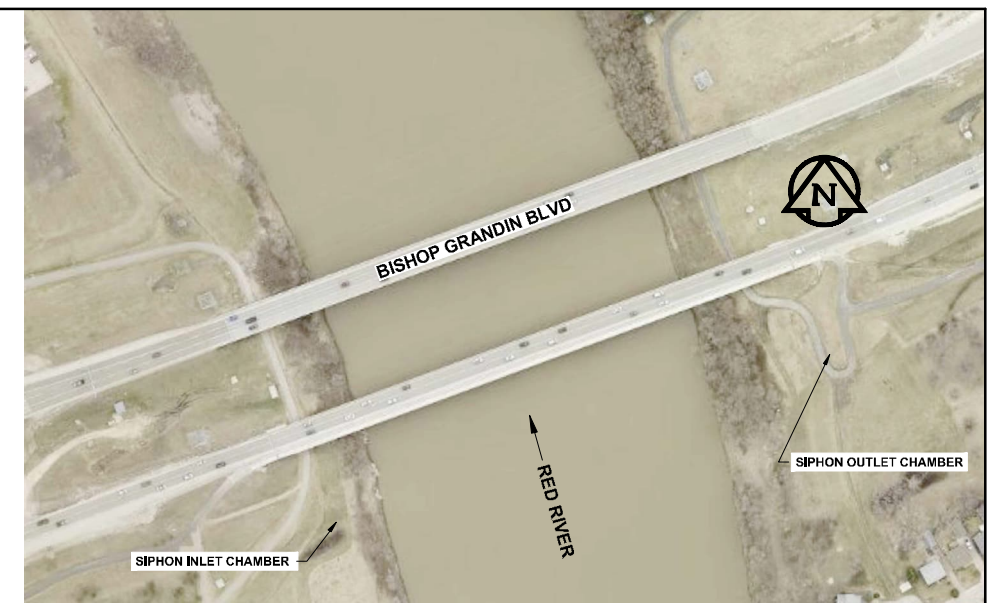
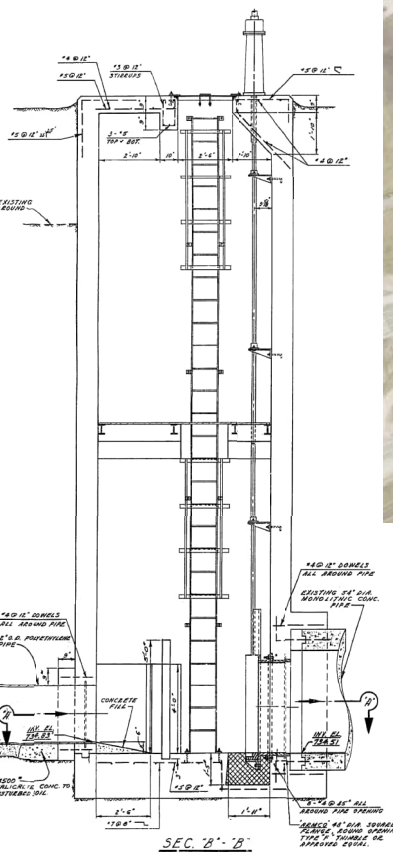
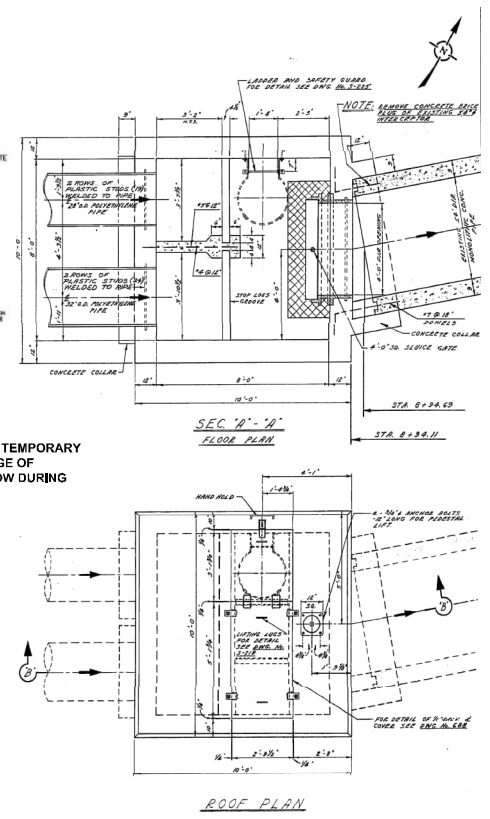
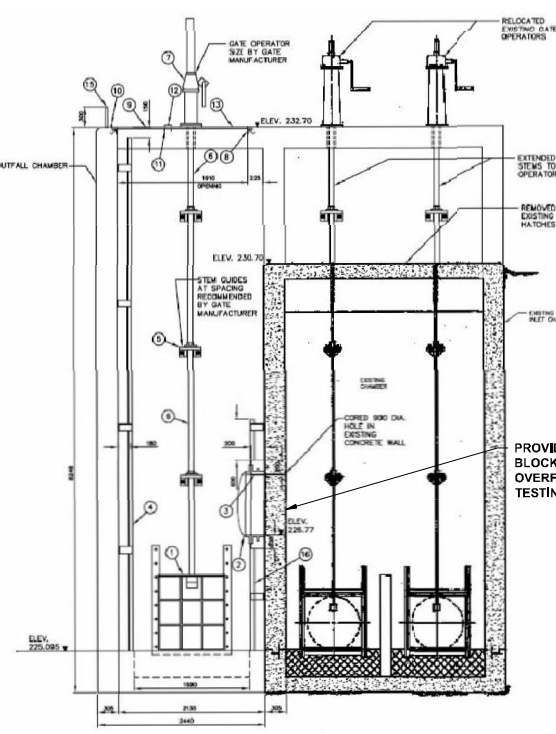
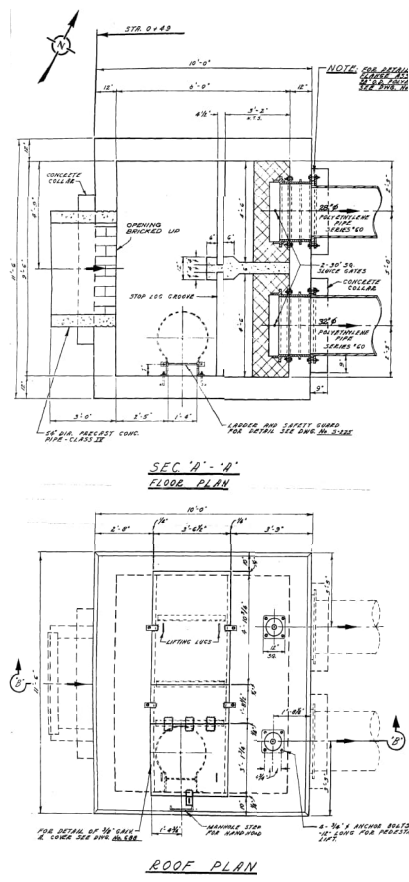
- NOTES:**
SEQUENCE OF WORK:
 1. REMOVE PIPE CLADDING AND INSULATION AT LOCATIONS SPECIFIED. REFER TO DETAIL.
 2. PERFORM INSPECTION USING REMOTE FIELD TECHNOLOGY EM TOOLS AT EACH LOCATION IDENTIFIED. (BY OTHERS)
 3. PERFORM ADDITIONAL INSPECTIONS FOR CORROSION UNDER INSULATION (CUI) AS DIRECTED BY CONTRACT ADMINISTRATOR.
 4. REHABILITATE PIPE COATINGS AS REQUIRED.
 5. REINSTALL NEW INSULATION AND CLADDING. REFER TO DETAIL.



KEY PLAN

ENGINEERS
GEOTECHNICALS
MANITOBA
 Certificate of Authorization
 AECOM Canada Ltd.
 No. 4671 Date: June 21, 2022

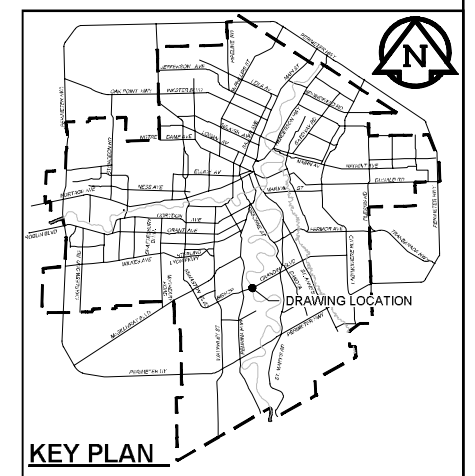
<p>WARNING</p> <p>IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:</p> <p>1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.</p> <p>2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.</p> <p>SEE PROVINCIAL REGULATION 210/72 FOR DETAILS</p>	<p>LOCATION APPROVED UNDERGROUND STRUCTURES</p> <p>SUPV. U/G STRUCTURES COMMITTEE DATE</p> <p>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.</p>	<p>B.M. 84R505 N.W. Cor. Saskatchewan Ave. & Midland St. Tbt. on top of 0.05 m dia. x 1.2 m iron pipe 10.2 m S. of N.L. of Saskatchewan Ave. & 5.6 m E. of W.L. of Midland St.</p> <p>CONSTRUCTION COMPLETION DATE: YYYY MM DD</p>	<p>AECOM</p>		<p>ENGINEER'S SEAL</p> <p>ORIGINAL SIGNED BY J. Thompson June 21, 2022</p>	<p>THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION</p>	<p>PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE</p> <p>SITE 3 NORWOOD BRIDGE FORCE MAINS</p>	<p>SHEET 04 OF 11 CITY DRAWING NUMBER 13019</p>
<p>ISSUED FOR TENDER 22/06/15 ADL</p>		<p>DATE 2022 06 21</p>		<p>DATE Jun 21/22</p>		<p>Tender No: 507-2021</p>		<p>FILE PATH: C:\Users\jelpip\AppData\Local\Temp\AcPublish_23408\</p> <p>FILE NAME: 60645745-SHT-30-0000-C-1003.dwg</p>



- NOTES:**
- LOW HEAD LEAKAGE TEST NOTES:**
1. MONITOR LEVELS IN UPSTREAM CHAMBER THROUGH DURATION OF LEAKAGE TEST.
 2. ABANDON TEST AND REMOVE INFLATABLE PLUGS IF LEVELS IN UPSTREAM CHAMBER EXCEED 225.7m.
 3. UPSTREAM INFLATABLE PLUG TO BE EQUIPPED WITH PORT SUITABLE TO ALLOW ADDITION OF WATER TO THE SIPHON AND MONITORING OF MAKE-UP WATER.
 4. TEST LEVEL AT UPSTREAM PORT: 225.3m
- SEQUENCE OF WORK:**
1. CLOSE SLUICE GATE ON 900 OUTFALL IN OVERFLOW CHAMBER (BY OTHERS).
 2. INSTALL INFLATABLE PLUGS IN BOTH UPSTREAM AND DOWNSTREAM CHAMBERS OF SIPHON BEING TESTED. ONE PLUG TO HAVE FLOW-THROUGH PORT AND TEST RISER.
 3. COMPLETE LOW HEAD PRESSURE TEST IN ACCORDANCE WITH CONTRACT SPECIFICATIONS AND DETAIL.
 4. UPON COMPLETION OF LOW HEAD PRESSURE TEST, REMOVE PLUGS FROM UPSTREAM AND DOWNSTREAM CHAMBERS AND OPEN SLUICE GATE ON THE 900 OUTFALL IN THE OVERFLOW CHAMBER.

ENGINEERS
GEOSCIENTISTS
MANITOBA

Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: June 21, 2022



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

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 UTILITIES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. 84R505	N.W. Cor. Saskatchewan Ave. & Midland St. Tbt. on top of 0.05 m dia. x 1.2 m iron pipe 10.2 m S. of N.L. of Saskatchewan Ave. & 5.6 m E. of W.L. of Midland St.
ELEV. 233.144m	
CONSTRUCTION COMPLETION DATE: YYYY MM DD	
ISSUED FOR TENDER	22/06/15 ADL
NO.	REVISIONS
	DATE BY

AECOM

DESIGNED BY: TJB
DRAWN BY: ADL
SCALE: HORIZONTAL AS NOTED
VERTICAL: N/A

CHECKED BY: MGM
APPROVED BY: KWF
RELEASED FOR CONSTRUCTION: Paul Bertoluzzi

DATE: 2022 06 21

ENGINEER'S SEAL

ORIGINAL SIGNED BY J. Thompson
June 21, 2022

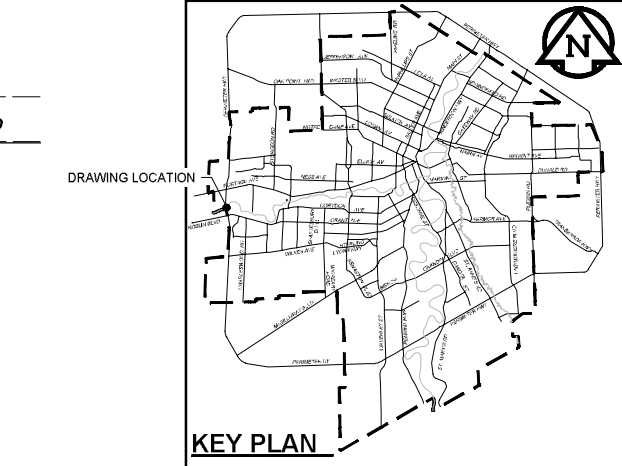
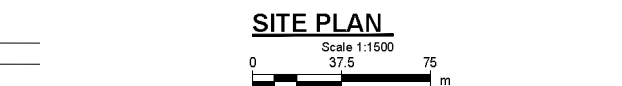
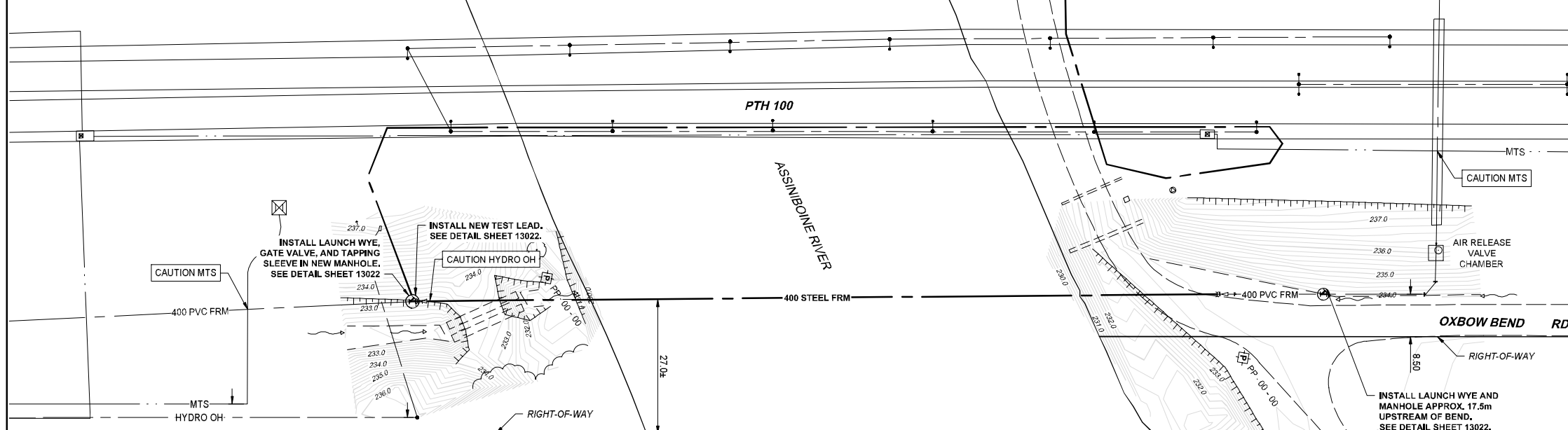
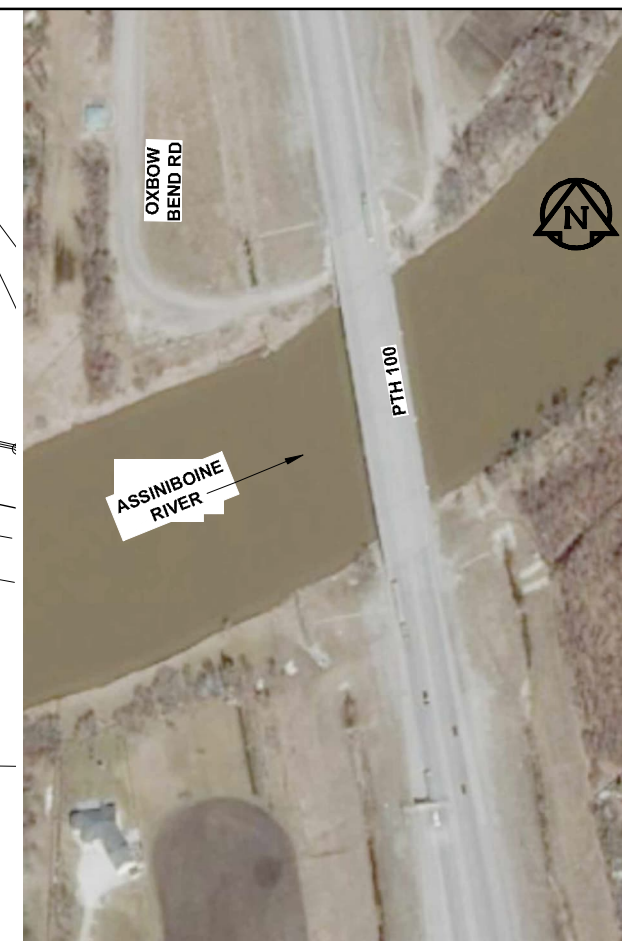
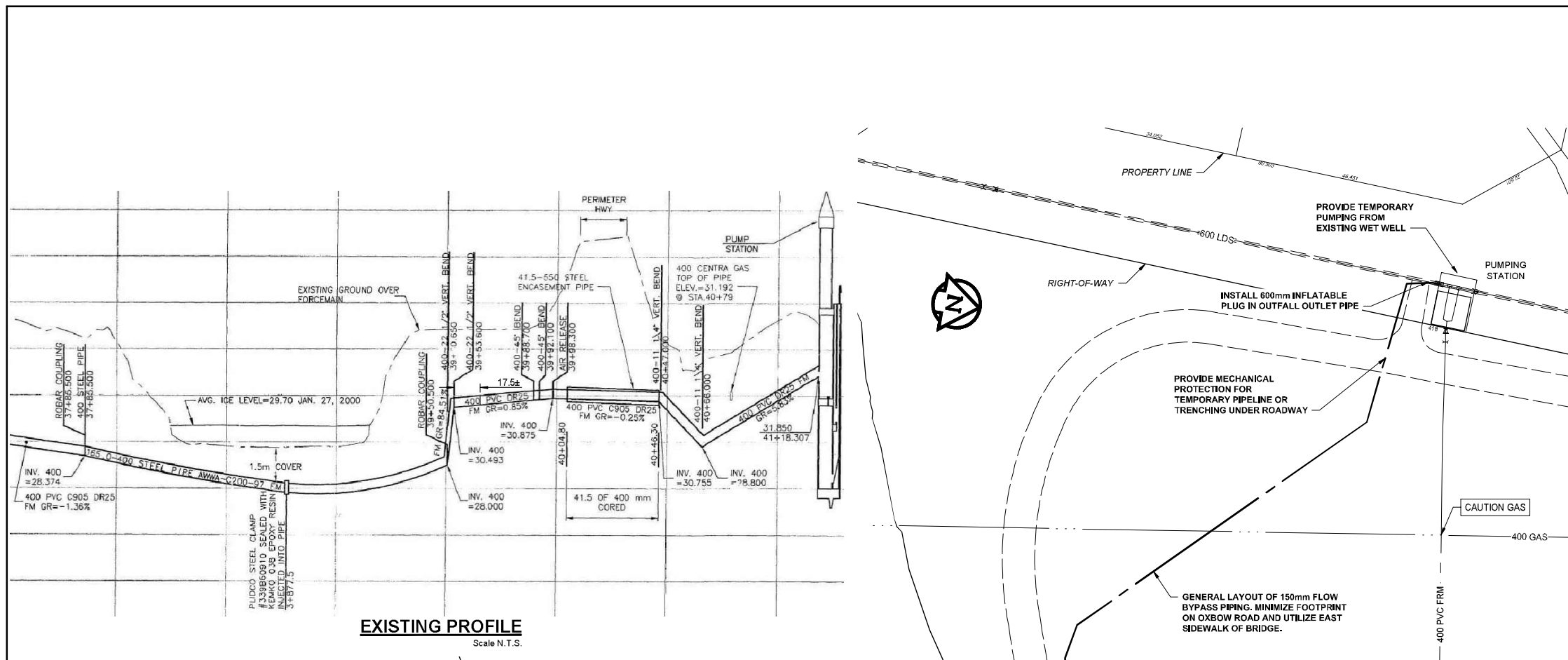
CONSULTANT DRAWING NUMBER: C-1004

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE

SITE 4
FORT GARRY - ST. VITAL INTERCEPTOR SIPHONS

SHEET 05 OF 11
CITY DRAWING NUMBER: 13020



- NOTES:**
1. PROVIDE SOLID WALL PIPING OVER EXTENTS OF BRIDGE CROSSING (APPROX. 125m). REFER TO SPECIFICATIONS.
 2. CONSTRUCT TEMPORARY CONTAINMENT BERM WHERE NON-SOLID WALL BYPASS PIPING IN PLACE. RESTORE EXISTING GROUND UPON COMPLETION.
 3. INSPECT BYPASS PIPING MIN. ONCE PER 24 HOUR PERIOD.

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

ENGINEERS
GEOSCIENTISTS
MANITOBA
Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: June 21, 2022

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

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. 84R505	N.W. Cor. Saskatchewan Ave. & Midland St., 10ft. on top of 0.05 m dia. x 1.2 m iron pipe 10.2 m S. of N.L. of Saskatchewan Ave. & 5.6 m E. of W.L. of Midland St.
ELEV. 233.144m	
CONSTRUCTION COMPLETION DATE: YYYY MM DD	
ISSUED FOR TENDER	22/06/15 ADL
NO.	REVISIONS
DATE	BY

AECOM

DESIGNED BY	TJB	CHECKED BY	MGM
DRAWN BY	ADL	APPROVED BY	KWF
SCALE:	HORIZONTAL AS NOTED	RELEASED FOR CONSTRUCTION	Paul Bortoluzzi
VERTICAL	N/A	DATE	June 21/22

PLOT DATE: 2022 06 21

ENGINEER'S SEAL

ORIGINAL SIGNED BY J. Thompson
June 21, 2022

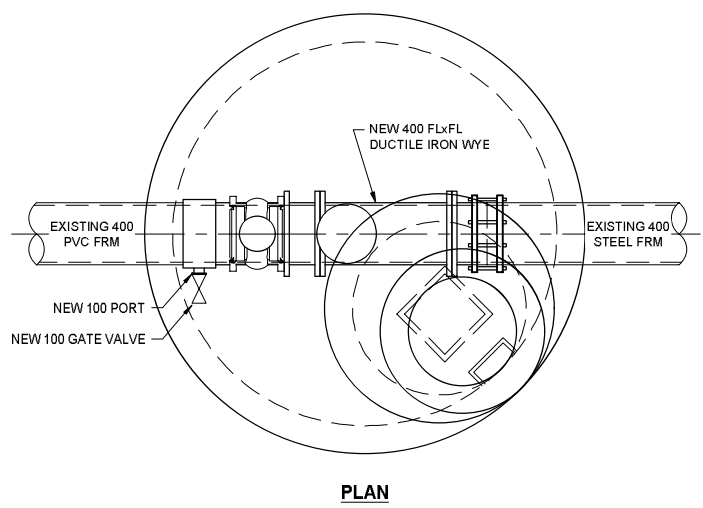
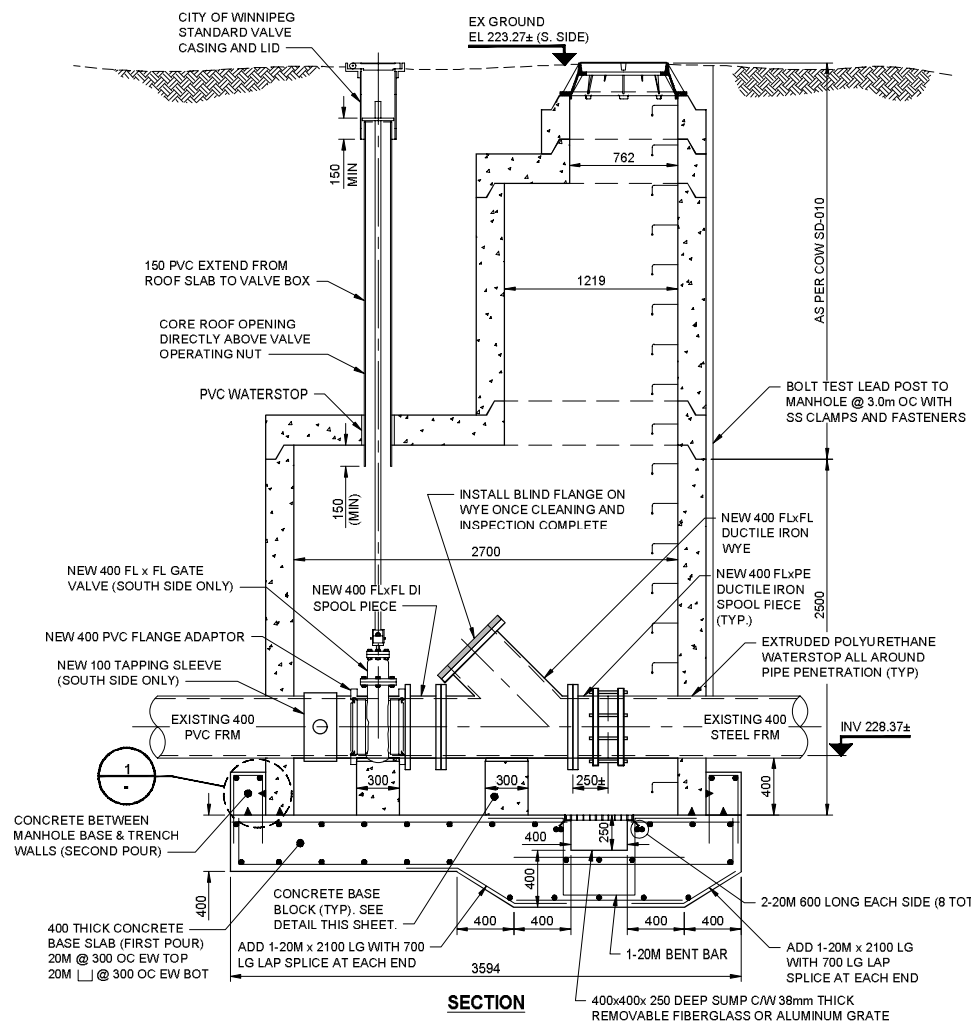
CONSULTANT DRAWING NUMBER
C-1005

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE

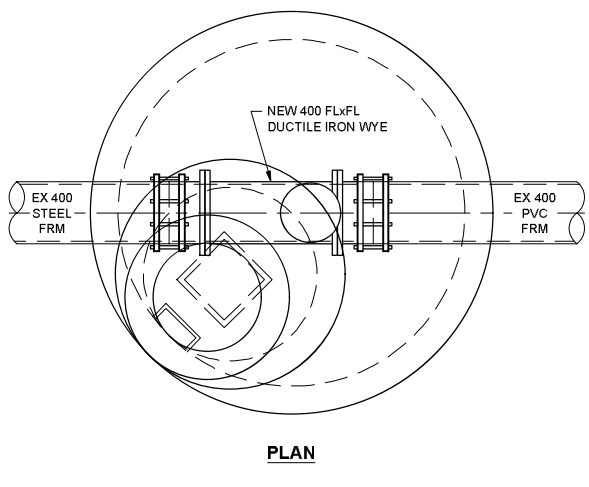
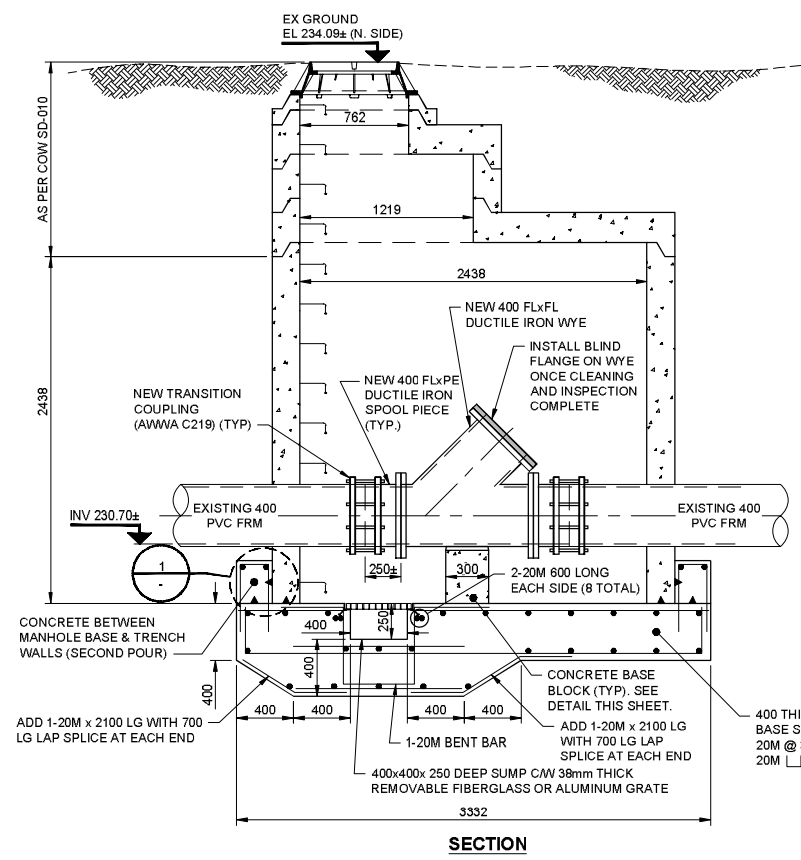
SITE 5
WEST PERIMETER FORCE MAIN

SHEET **06** OF **11**
CITY DRAWING NUMBER
13021



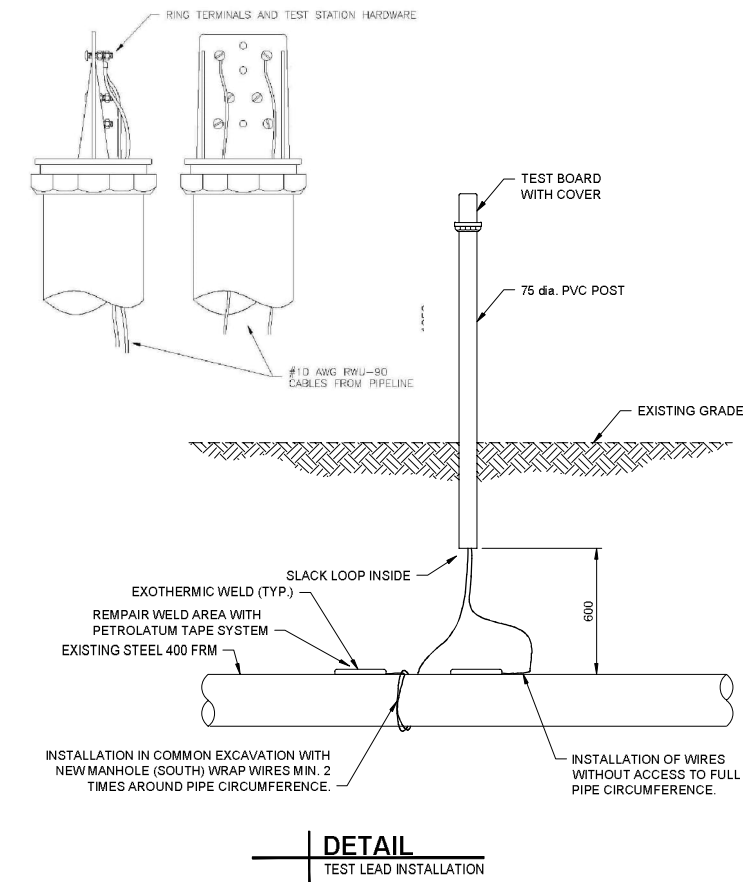
SITE 5
SOUTH MANHOLE INSTALLATION

0 625 1250 mm
1:25

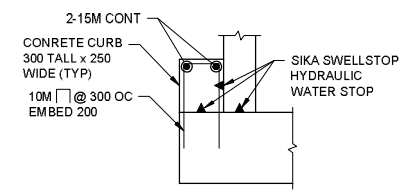


SITE 5
NORTH MANHOLE INSTALLATION

0 625 1250 mm
1:25

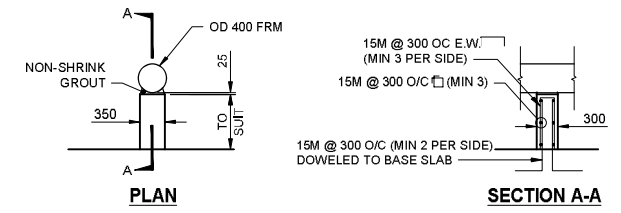


DETAIL
TEST LEAD INSTALLATION



1 | DETAIL
CONCRETE CURB

0 500 1000 mm
1:20



DETAIL
TYPICAL BASE BLOCK

0 1250 2500 mm
1:50

ENGINEERS
GEOSCIENTISTS
MANITOBA

Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: June 21, 2022

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

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

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. 84R505 ELEV. 233.144m	N.W. Cor. Saskatchewan Ave. & Midland St., 10.2 m S. of N.L. of Saskatchewan Ave. & 5.6 m E. of W.L. of Midland St.		
CONSTRUCTION COMPLETION DATE: YYYY MM DD			
0	ISSUED FOR TENDER	22/06/15	ADL
NO.	REVISIONS	DATE	BY

AECOM

DESIGNED BY: TJB
CHECKED BY: MGM
DRAWN BY: ADL
APPROVED BY: KWF
SCALE: HORIZONTAL AS NOTED
VERTICAL N/A
RELEASED FOR CONSTRUCTION: Paul Bortoluzzi

DATE: 2022 06 21
DATE: Jun 21/22

ENGINEER'S SEAL

ORIGINAL SIGNED BY J. Thompson
June 21, 2022

CONSULTANT DRAWING NUMBER: C-4001

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE MISCELLANEOUS DETAILS SEWER SITES

SHEET 09 OF 11
CITY DRAWING NUMBER 13022