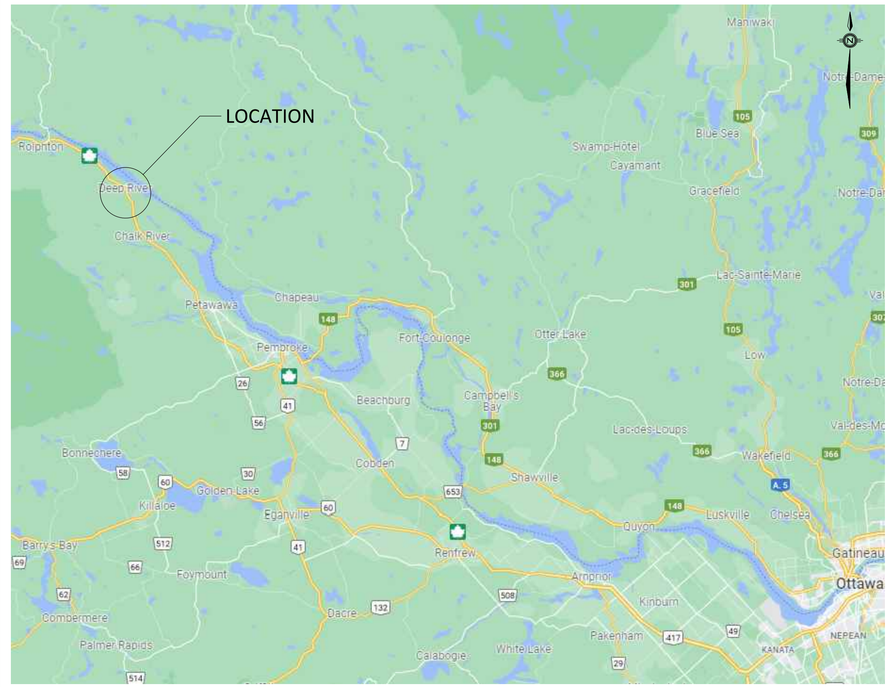
THE TOWN OF DEEP RIVER

DEEP RIVER WATER TOWER REHABILITATION

CONTRACT No. 2022-RFP-002

ISSUED FOR TENDER

MARCH 2022



LOCATION PLAN

NTS

GENERAL NOTES

1. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS AND OTHER UNDERGROUND AND ABOVE GROUND UTILITIES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK THE CONTRACTOR SHALL CONFIRM FOR THEMSELVES THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.
2. THE CONTRACTOR SHALL DESIGN, PROVIDE DETAILED DESIGN CALCULATIONS AND SHOP DRAWINGS FOR REVIEW, PRIOR TO FABRICATION AND SUPPLY OF ANY REQUIRED STRUCTURAL OR FALL ARREST IMPROVEMENTS/ REPAIRS TO TANK. SUPPLY DESIGNED AND APPROVED ITEM(S), INSTALL TEST AND COMMISSION. ALL INSTALLED / AND OR CONSTRUCTED ITEMS SHALL BE COMPLETE, INCLUDING ALL ACCESSORIES AND OPERATE IN THE MANNER INTENDED TO THE SATISFACTION OF THE ENGINEER AND THE OWNER. ALL DESIGN SHALL CONFORM TO THE MOST STRINGENT REQUIREMENTS OF THE APPLICABLE LOCAL, PROVINCIAL AND FEDERAL CODES AND STANDARDS. ALL DESIGN CALCULATIONS, SHOP DRAWINGS, DETAILS ETC SUBMITTED FOR THIS CONTRACT SHALL BE COMPLETED, STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER (OF THE APPROPRIATE DISCIPLINE) LICENSED TO PRACTICE IN THE PROVINCE OF ONTARIO WITH A MINIMUM OF FIVE (5) YEARS SUCCESSFUL EXPERIENCE FOR SIMILAR WORK. DESIGN, SUPPLY AND INSTALL/ CONSTRUCT ITEMS NOTED IN THESE CONTRACT DOCUMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT AND/OR RELOCATION OF EXISTING UTILITIES AND SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE REQUIREMENTS OF ALL UTILITIES WHEN CROSSING OR WORKING NEAR THEIR PLANT.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE ACCURACY OF ALL TEMPORARY BENCHMARKS ESTABLISHED FOR DESIGN PURPOSES PRIOR TO CONSTRUCTION.
5. ALL ROAD SURFACES DISTURBED BY CONSTRUCTION SHALL BE REINSTATED TO ORIGINAL CONDITIONS OR BETTER, BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. ALL OTHER AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL CONDITIONS OR BETTER, BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ESTABLISHED GRASS BOULEVARDS, LAWNS, DITCHES AND SWALES, SHALL BE MINIMUM 50mm IMPORTED TOPSOIL AND SEED, TO MATCH PRE-EXISTING GRADE.
7. ALL REMOVALS IDENTIFIED SHALL BE COMPLETE UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ALL ELECTRICAL REMOVALS SHALL INCLUDE WIRING FROM THE FIELD BACK TO THE DISTRIBUTION OR CONTROL PANEL.
8. DO NOT SCALE DRAWINGS FOR CONSTRUCTION.
9. ACCESS TO THE SITE WILL BE FROM RUTHERFORD AVENUE ONLY.

DEEP RIVER TANK COATING AND UPGRADES NOTES

1. SUBMIT COATING REMOVAL AND APPLICATION WORK PLAN INCLUDING PROPOSED METHODOLOGY AS PER SPECIFICATION 13605.
2. THE CONTRACTOR SHALL INSTALL A SCAFFOLDING AND HOARDING CONTAINMENT SYSTEM AROUND THE TANK, SUPPORT LEGS AND MAIN RISER TO PROVIDE FULL AND UNOBSTRUCTED ACCESS FOR BLASTING AND COATING WORK. THE SCAFFOLDING STRUCTURE SHALL BE DESIGNED TO PROVIDE ADEQUATE ENVIRONMENTAL CONTROLS ON THE INTERIOR OF THE HOARDING FOR WORKERS AND BLASTING PARTICLE CONTROL. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE SCAFFOLDING, HOARDING AND ENVIRONMENTAL CONTROL SYSTEM STAMPED BY A LICENSED PROFESSIONAL ENGINEER OF ONTARIO PRIOR TO CONSTRUCTION OF THE SCAFFOLDING. THE ENGINEER SHALL INSPECT, REPORT DEFICIENCIES AND CERTIFY THE INSTALLATION BEFORE IT IS OCCUPIED.
3. BLAST REMOVE THE ENTIRE EXISTING EXTERIOR COATING SYSTEM FROM ALL EXTERIOR SURFACES, AS PER SSPC-SP6. BLAST AND APPLY EXTERIOR COATING SYSTEM AS PER SPECIFICATION 13605.
4. TANK EXTERIOR COLOURS SHALL BE PER SPECIFICATION 13605. SEE LOGO AND COATING COLOR INFORMATION ON GENERAL DRAWING INDEX DRAWING.
5. ONE (1) LOGO IS REQUIRED IN THE SAME ORIENTATION AS EXISTING.
6. THE EXTERIOR COATING SYSTEM CONTAINS LEAD. FULL LEAD ABATEMENT WILL BE REQUIRED DURING REMOVAL OF THE EXISTING COATING SYSTEM. SEE CONTRACT DOCUMENTS FOR EXTERIOR COATING SYSTEM LEAD RESULTS.
7. THE EXTERIOR COATING SYSTEM IS COMPRISED OF A 6-LAYER COATING SYSTEM IN THE RANGE OF 18 TO 30 MILS DFT.

ANTENNA COORDINATION AND RELOCATION REQUIREMENTS

1. THE DEEP RIVER WATER TOWER IS USED AS A LOCAL TELECOMMUNICATION HUB. AS SUCH, THE CONTRACTOR SHALL PROTECT THE EXISTING TELECOMMUNICATION EQUIPMENT INSTALLED ON THE TANK DURING THE COATING REMOVAL AND APPLICATION PROCESS:
   a. THE CONTRACTOR SHALL COORDINATE WITH TELECOMMUNICATION COMPANIES UTILIZING THE TANK TO SAFELY REMOVE AND TEMPORARILY RELOCATE ALL ANTENNAS FROM THE TANK TO THE EXTERIOR OF THE SCAFFOLDING SYSTEM. THE TEMPORARY ANTENNA MOUNTING ARRANGEMENT IS TO BE COORDINATED WITH EACH TELECOMMUNICATION COMPANY SUCH THAT ANY ANTENNA MAINTENANCE AND REPAIR WORK CAN BE ACCOMMODATED DURING THE CONSTRUCTION PHASE.
   b. UPON COMPLETION OF WORK, ALL ANTENNAS SHALL BE REINSTALLED ON THE EXISTING ANTENNA SUPPORTS. ANTENNA REINSTALLATION IS TO BE FULLY COORDINATED WITH THE OWNERS OF THE RESPECTIVE ANTENNA. SEE SPECIAL PROVISIONS FOR FURTHER DETAILS AND TELECOMMUNICATION COMPANY CONTACT INFORMATION.

INTERIOR LINING REPAIRS

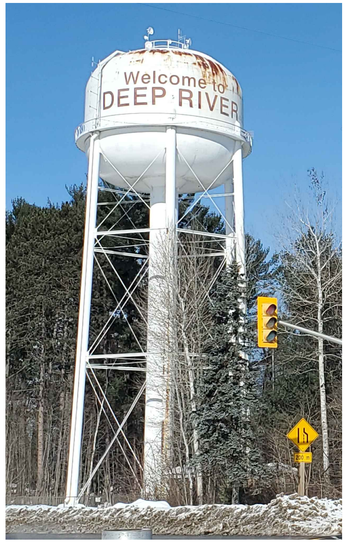
1. THE CONTRACTOR SHALL CLEAN THE INTERIOR OF THE TOWER AFTER ISOLATION AND DRAINING IS COMPLETED BY THE TOWN. THE FLOOR AND LOWER AREAS OF THE SHELL ACCESSIBLE FROM THE FLOOR SHALL BE PRESSURE WASHED. APPROXIMATE DEPTH OF SEDIMENT ON TANK FLOOR IS ESTIMATED AT 10mm.
2. ALL INTERIOR LOCATIONS WHERE EXTERIOR WELDING COMPLETED BY THE CONTRACTOR DAMAGES THE INTERIOR LINING SHALL BE REPAIRED BY THE CONTRACTOR. ALL COSTS OF REPAIRS DUE TO CONSTRUCTION OF BASE BID ITEMS SHALL BE INCLUDED IN THE CONTRACT.
3. ALL AREAS WHERE SPOT REPAIRS ARE REQUIRED SHALL BE PREPARED TO SSPC-SP3. ADJACENT, WELL ADHERING LINING SHALL BE ABRADED AT LEAST 75mm BEYOND THE SPOT REPAIR IN PREPARATION FOR LINER PATCH APPLICATION. ALL AREAS WHERE REPAIRS ARE REQUIRED SHALL BE COATED WITH TWO COATS OF 100% SOLIDS EPOXY AT A MINIMUM THICKNESS OF 15 MILS DFT PER COAT.
4. INTERIOR LINING PRODUCT MANUFACTURER SHALL BE THE SAME AS THE EXTERIOR COATING MANUFACTURER.
5. ALL INTERIOR LINING REPAIR PRODUCTS SHALL CONFORM TO NSF-61 / NSF-600.
6. THE CONTRACTOR SHALL DISINFECT THE TOWER AT COMPLETION OF CONSTRUCTION. DETAILED DISINFECTION PLAN SHALL BE SUBMITTED TO THE CONSULTANT AND OWNER FOR REVIEW.

COATING INSPECTION & CONTRACTOR'S QUALITY ASSURANCE REQUIREMENTS

1. SURFACE PREPARATION, COATING REMOVAL AND REAPPLICATION SHALL FOLLOW MILESTONE INSPECTION METHODOLOGY OUTLINED IN THE CONTRACT SPECIFICATIONS. MILESTONE INSPECTIONS SHALL BE ACCOUNTED FOR IN THE OVERALL CONSTRUCTION SCHEDULE. THERE WILL BE NO DEVIATION FROM THIS REQUIREMENT.
2. ALL REQUIRED QUALITY CONTROL SHALL BE COMPLETED BY THE CONTRACTOR DURING ALL BLASTING, AND COATING APPLICATION PROCESS.
3. QUALITY CONTROL SHALL BE COMPLETED BY THE CONTRACTOR ON AN ONGOING BASIS, BEFORE, DURING AND AFTER THE BLASTING AND COATING APPLICATION PROCESS TO ENSURE THAT THE CONTRACT SPECIFICATIONS AND MANUFACTURER'S REQUIREMENTS ARE ADHERED TO AT ALL TIMES.
4. THE CONTRACTOR SHALL PERFORM ALL REQUIRED QUALITY CONTROL CHECKS AND SUBMIT RESPECTIVE QUALITY CONTROL REPORTS PRIOR TO REQUESTING A HOLD POINT INSPECTION. COATING APPLICATION WORK COMPLETED WITHOUT DOCUMENTED QUALITY CONTROL WILL NOT BE ACCEPTED.
5. SURFACE PREPARATION REQUIREMENTS, COATING PRODUCTS AND FINAL DFT READINGS SHALL BE NOTED ON THE RED-LINE MARK-UP DRAWINGS THAT SHALL BE SUBMITTED AT THE END OF CONSTRUCTION ACTIVITIES. ALL QUALITY CONTROL DOCUMENTS SHALL BE SUBMITTED AT THE END OF THE COATING APPLICATION PROCESS FOR RECORDS

STRUCTURAL NOTES

1. THE CONTRACTOR IS TO CHECK AND FIELD VERIFY ALL DIMENSIONS ON THE STRUCTURAL DRAWINGS BEFORE CONSTRUCTION. ANY DISCREPANCIES OR ERRORS MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORK.
2. IN ALL INSTANCES, ALL DIMENSIONS FOR FABRICATION AND INSTALLATION OF ANY ITEM SHALL BE FIELD DETERMINED BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ACCESSORIES AND APPURTENANCES, STAMPED AND SEALED BY AN ONTARIO QUALIFIED ENGINEER, FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
4. FEATURES OF CONSTRUCTION NOT FULLY SHOWN ARE OF THE SAME CHARACTER AS THOSE NOTED FOR SIMILAR CONDITIONS.
5. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH OTHER CONTRACT DRAWING AND DOCUMENTS.
6. THE WELDING SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD W59 (LATEST EDITION) AND THE WELDING COMPANY AND WELDERS SHALL BE QUALIFIED UNDER THE REQUIREMENTS OF CSA STANDARD W47 (LATEST EDITION) FOR THE APPROPRIATE WELDING POSITION.
7. STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF CSA SPECIFICATIONS S16.1 (LATEST EDITION) AND CSA SPECIFICATION S G40.21 TYPE 350W (LATEST EDITION) FOR BEAMS, TYPE 300W FOR ANGLES AND 350W FOR HSS.
8. ALL NEW HATCH COVERS SHALL BE HINGED AND EQUIPPED WITH SS HARDWARE. DESIGN LOAD = 4.8 kPA.
9. STRUCTURAL DESIGN SHALL BE BASED ON THE LATEST EDITION OF THE NATIONAL AND ONTARIO BUILDING CODES.
10. ALL STRUCTURAL COMPONENTS AND APPURTENANCES ADDED OR MODIFIED AS PART OF THIS CONTRACT SHALL BE FULLY SEAL WELDED, UNLESS NOTED OTHERWISE.
11. ALL STRUCTURAL COMPONENTS AND APPURTENANCES ADDED TO BE INSTALLED VERTICALLY PLUMB UNLESS OTHERWISE NOTED.
12. ABSOLUTELY NO DISSIMILAR METALS SHALL BE INSTALLED IN CONTACT WITH EACH OTHER IN THE TANK INTERIOR. ON THE TANK EXTERIOR, DISSIMILAR METALS MAY ONLY BE USED WHEN A BOLTED AND GASKETED CONNECTIONS IS MADE.
13. DISPOSE OF ALL EQUIPMENT AND / OR APPURTENANCES TO BE REMOVED UNDER THIS CONTRACT, UNLESS OTHERWISE SPECIFIED.
14. ALL FASTENERS TO BE 316L STAINLESS STEEL.
15. DESIGN WIND LOAD FOR DEEP RIVER IS: $q_{\frac{1}{50}}$ = 0.35 kPa



1 DEEP RIVER WATER TOWER
SCALE: NTS

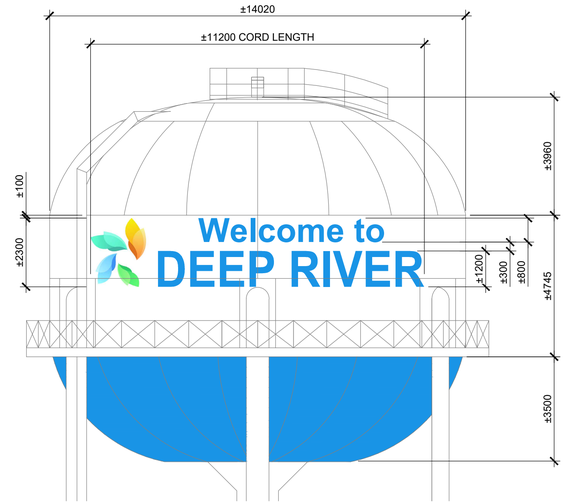
DRAWING LIST

GENERAL

CIVIL

STRUCTURAL

PROCESS



LOGO PANTONE MATCHING SYSTEM COLOURS

BLUE1:	PMS.....XX	GREEN1:	PMS.....XX
BLUE2:	PMS.....XX	GREEN2:	PMS.....XX
BLUE3:	PMS.....XX	GREEN3:	PMS.....XX
ORANGE1:	PMS.....XX	AQUA1:	PMS.....XX
ORANGE2:	PMS.....XX	AQUA2:	PMS.....XX
ORANGE3:	PMS.....XX	AQUA3:	PMS.....XX

LETTERING NOTES

1. LETTERING AND LOGO TO BE LOCATED ON TANK, (1) ONCE, CENTERED IN THE SAME LOCATION AS THE EXISTING LOGO.
2. LOCO FONT FACE TO BE ARIAL.

2 LOGO DETAILS
SCALE: NTS

THE TOWN OF DEEP RIVER

DEEP RIVER WATER TOWER REHABILITATION

CONTRACT NO.

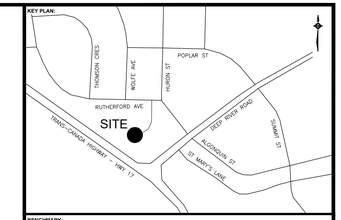
Consulting Engineer CIMA+

deep river

Contractor
CONTRACTOR LOGO

3 CONSTRUCTION SIGN
SCALE: NTS

KEY PLAN:



BENCHMARK:

No.	Date	Description	By
0	MAR 2022	ISSUED FOR TENDER	MSL

STAMPS:

LICENSED PROFESSIONAL ENGINEER
03/30/2022
M.S.LUKASIEWICZ
100172388
PROVINCE OF ONTARIO

DESIGNED BY | APPROVED BY

ENGINEER:

CIMA+
T: 519-772-2299
900 - 101 Frederick Street, Kitchener, ON N2H 6R2 CANADA

CLIENT: deep river

PROJECT NAME:
DEEP RIVER WATER TOWER REHABILITATION
Contract No. 2022-RFP-002

SHEET TITLE:
GENERAL NOTES AND INDEX

DISCIPLINE:
GENERAL

DRAFTER: ML	SCALE: N.T.S.
DESIGNER: NG	DATE: 2022/03/21
APPROVER: BY	APPROVER: MSL
PROJECT No: A001231	DRAWING No: G01
SHEET No: 2 of 6	

ACCESS TO TOWER SITE IS FROM RUTHERFORD AVENUE.

THE CONTRACTOR SHALL MAINTAIN ACCESS THROUGH THE ACCESS DRIVEWAY AT ALL TIMES. ACCESS TO THE NEAR-BY GARAGE AREA SHALL REMAIN OPEN FOR DURATION OF CONSTRUCTION.

SINGLE LANE ACCESS ROAD FROM RUTHERFORD AVENUE TO DEEP RIVER WATER TOWER

EX. GARAGE

EX. FIBRE OPTIC CABLE

MIXED BUSH LINE

EX. 300mm WATERMAIN

EX. 400mm WATERMAIN

EX. FIBRE OPTIC CABLE

MIXED TREELINE

EX. WATER TOWER LADDER LOCATION

EX. CHAINLINK FENCE c/w 3 BARBED WIRE

EX. 6.0m DOUBLE SWING GATE

EX. ELECTRICAL MH

5.1m

5.0m

3.6m

3.8m

EX. 250mm OVERFLOW

EX. 400mm INLET WATERMAIN

EX. VALVE ROOM BUILDING

EX. 250mm CP OVERFLOW

3.1m

3.8m

4.1m

5.0m

EX. BUILDING

CONTRACTOR LAYDOWN AREA.

PROTECT EXISTING BUILDINGS AND TELECOMMUNICATION INFRASTRUCTURE FOR DURATION OF CONSTRUCTION.

EX. WATER TOWER

4.6m

EX. CHAINLINK FENCE c/w 3 BARBED WIRE

THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION AT COMPLETION OF WORK. ALL GRASSED AREAS TO BE RESTORED WITH TOPSOIL AND SEED.

ADDITIONAL LAYDOWN AREA

SUPPLY, INSTALL AND MAINTAIN 1.8m HIGH, TEMPORARY FENCE AROUND THE ADDITIONAL LAYDOWN AREA. ACCESS TO ADDITIONAL LAYDOWN AREA SHALL BE FROM THE TANK SITE ONLY.

TEMPORARILY REMOVE CHAIN LINK FENCE FABRIC TO FACILITATE ACCESS TO ADDITIONAL LAYDOWN AREA INDICATED. RESPECTIVE FENCE POSTS MAY BE REMOVED TO ACCOMMODATE AREA ACCESS. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REINSTATE THE FENCE TO EXISTING CONDITION, OR BETTER.

MIXED TREELINE

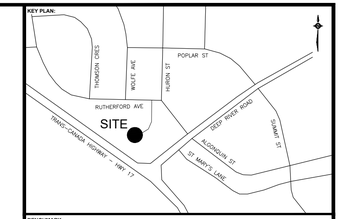
MIXED TREELINE

NOTES:

CONTRACTOR TO SITE VERIFY ALL DIMENSIONS. DIMENSIONS SHOWN ARE ROUGH APPROXIMATIONS, LOCATIONS NOT SURVEYED.

1:150 0 1500 4500 7500

KEY PLAN:



BENCHMARK:

No.	Date	Description	By
0	MAR 2022	ISSUED FOR TENDER	MSL

STAMPS:

LICENSED PROFESSIONAL ENGINEER
03/30/2022
M.S.LUKASIEWICZ
100172388
PROVINCE OF ONTARIO

DESIGNED BY APPROVED BY

ENGINEER:

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900 - 101 Frederick Street, Kitchener, ON N2H 6R2 CANADA

CLIENT:

deep river

PROJECT NAME:

DEEP RIVER WATER TOWER REHABILITATION

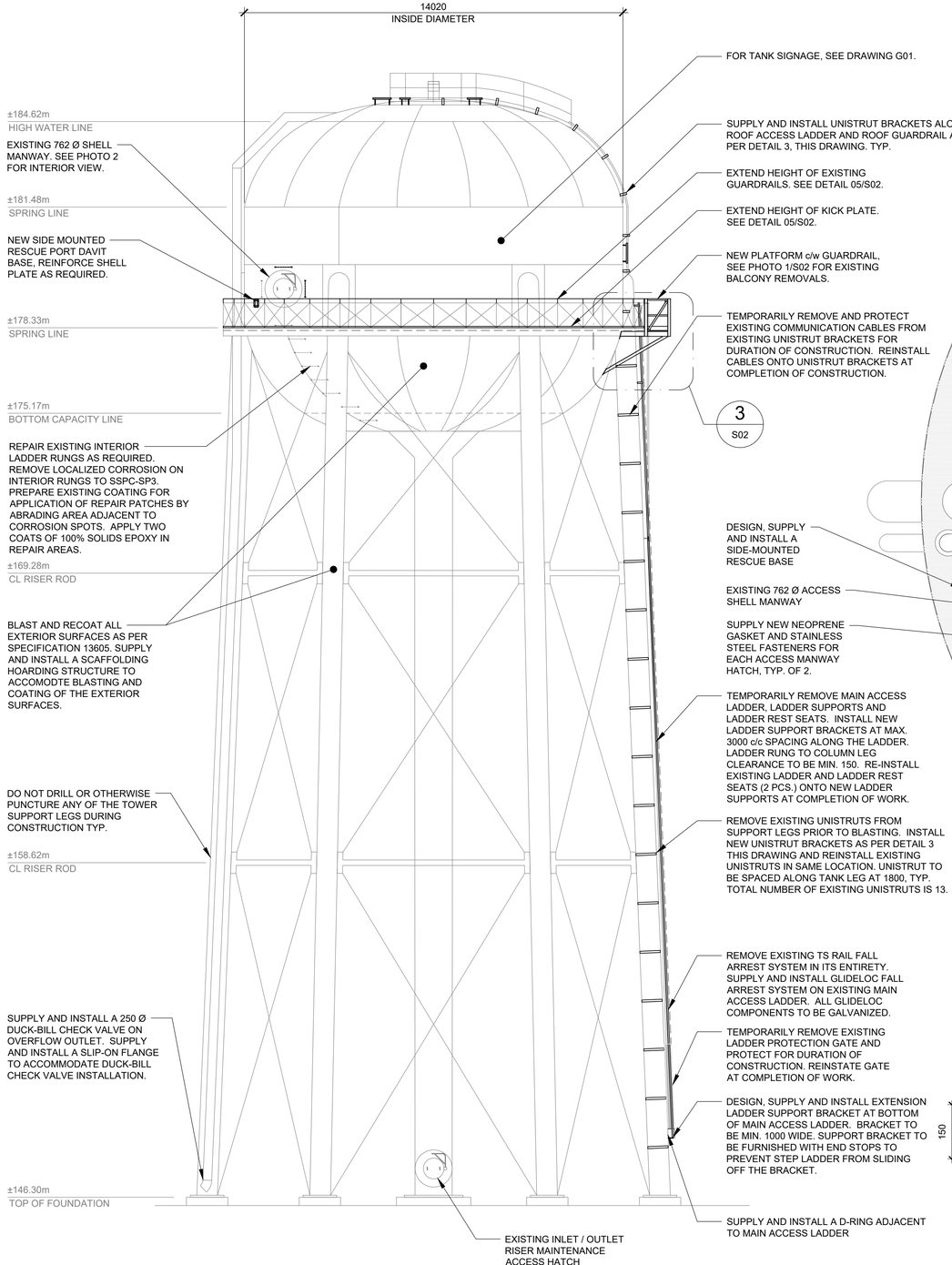
Contract No. 2022-RFP-002

SHEET TITLE:

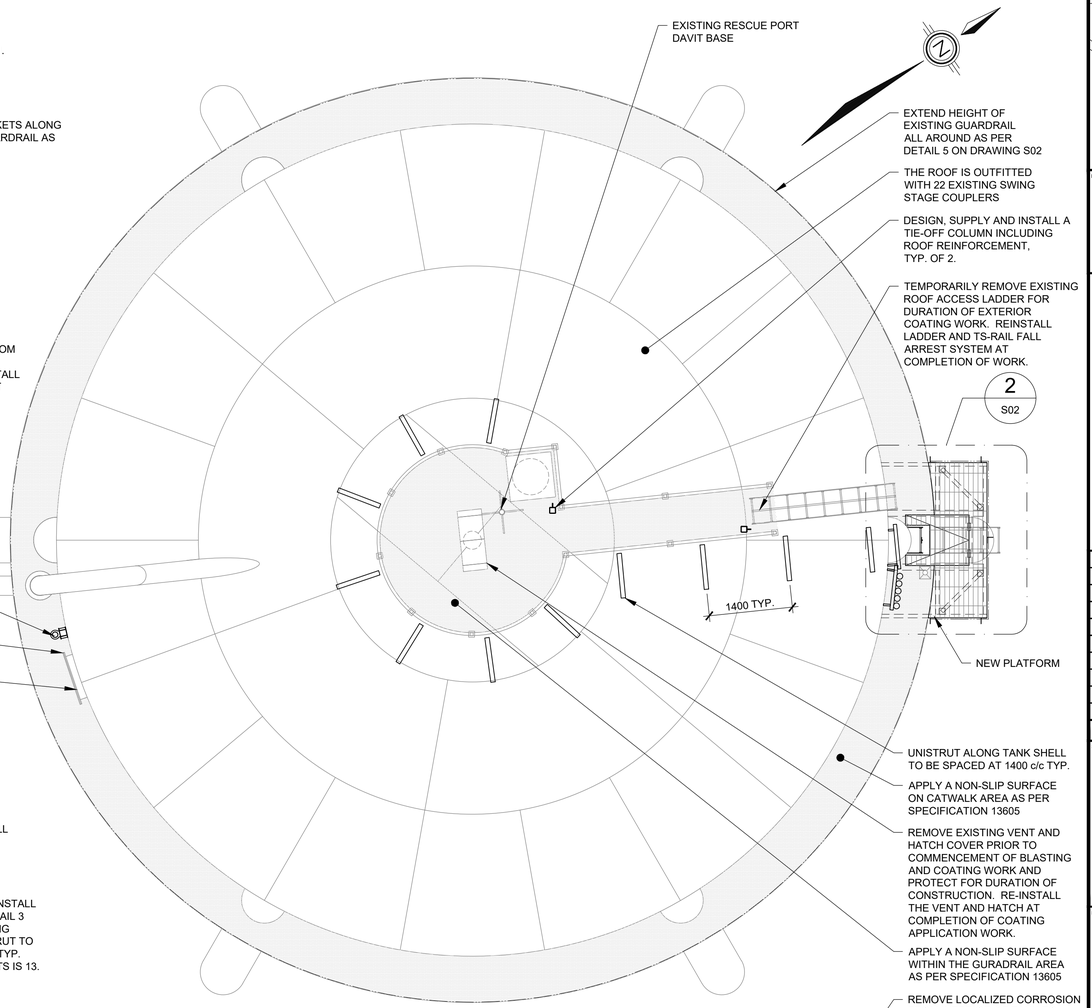
SITE PLAN

DISCIPLINE: CIVIL

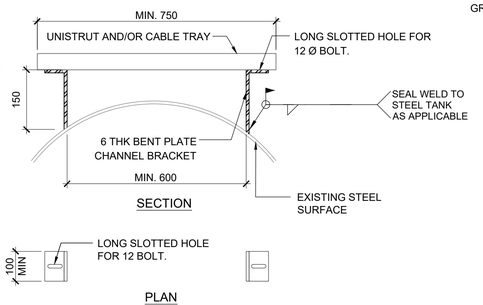
DRAFTER: ML	SCALE: 1:150
DESIGNER: NG	DATE: 2022/03/21
APPROVER: BY	APPROVER: MSL
PROJECT No: A001231	DRAWING No: C01
SHEET No: 3 of 6	



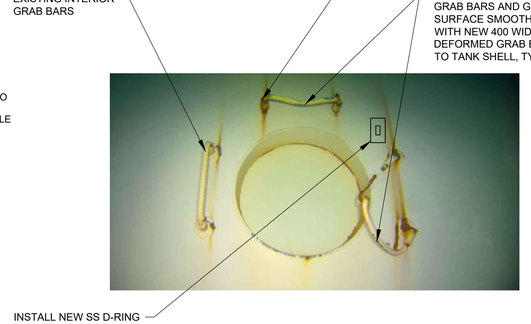
1 TANK ELEVATION
SCALE: 1:100



2 ROOF PLAN
SCALE: 1:50

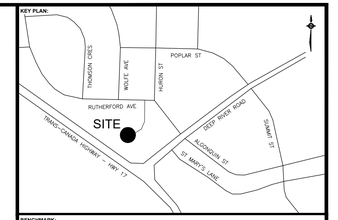


3 UNITSTRUT DETAIL
SCALE: NTS



4 EXISTING SIDE MOUNTED ACCESS HATCH - INTERIOR VIEW
SCALE: NTS

KEY PLAN:



BENCHMARK:

NOTES:

1. EXTERIOR COATING SYSTEM CONTAINS LEAD. FULL LEAD ABATEMENT PROCEDURES WILL BE REQUIRED.
2. THE CONTRACTOR SHALL REPAIR THE INTERIOR LINING SYSTEM WHEREVER EXTERIOR INSTALLATION DAMAGES THE INTERIOR LINING SYSTEM. ALL INTERIOR LINING REPAIRS DUE TO WORK COMPLETED AS PART OF THIS CONTRACT TO BE INCLUDED IN THE BASE BID.
3. THE TOWER IS USED AS A LOCAL TELECOMMUNICATION HUB. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE TELECOMMUNICATION COMPANIES TO TEMPORARILY RELOCATE EXISTING ANTENNAS TO THE EXTERIOR OF THE SCAFFOLDING SYSTEM TO ACCOMMODATE COATING WORK. ALL ANTENNAS ARE TO BE RELOCATED BACK TO THEIR EXISTING LOCATIONS AT COMPLETION OF THE PROJECT. EXISTING ANTENNAS ARE NOT SHOWN ON CONTRACT DRAWINGS. SEE CONTRACT DOCUMENTS FOR FURTHER DETAILS.
4. VERIFY ALL DIMENSION PRIOR TO FABRICATION.

No.	Date	Description	By
0	MAR 2022	ISSUED FOR TENDER	MSL

STAMPS:

DESIGNED BY

APPROVED BY

ENGINEER:
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T: 519-772-2299
900 -101 Frederick Street, Kitchener, ON N2H 6R2 CANADA

CLIENT:
deep river

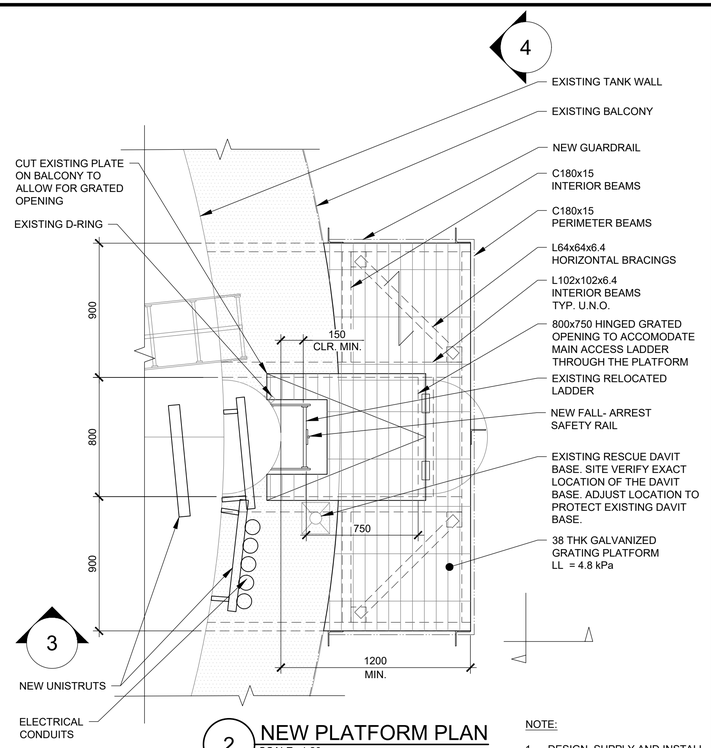
PROJECT NAME:
DEEP RIVER WATER TOWER REHABILITATION
Contract No. 2022-RFP-002

SHEET TITLE:
TANK ELEVATION AND ROOF PLAN

DISCIPLINE:
STRUCTURAL

DRAFTER: EE	SCALE: --
DESIGNER: WC	DATE: 2022/03/28
APPROVER: BY	APPROVER: MSL
PROJECT No: A001231	DRAWING No: S01
SHEET No: 4 of 6	

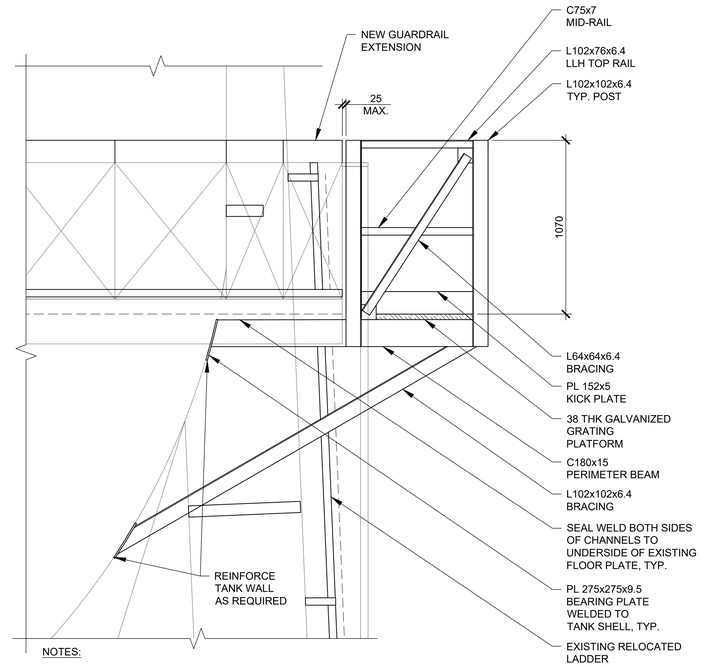
1 PHOTO
SCALE: NTS



2 NEW PLATFORM PLAN
SCALE: 1:20

NOTE:

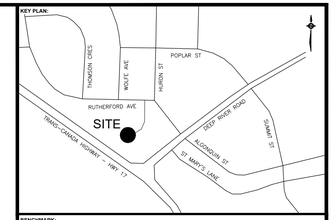
1. DESIGN, SUPPLY AND INSTALL NEW PLATFORM AT BALCONY LEVEL.



NOTES:

1. ALL SUPPORT MEMBERS TO BE COATED AS PER SPECIFICATION 13605.
2. PLATFORM GRATING TO BE HOT-DIPPED GALVANIZED.

3 NEW PLATFORM ELEVATION
SCALE: 1:20



BENCHMARK:

No.	Date	Description	By
0	MAR 2022	ISSUED FOR TENDER	MSL

STAMPS:

LICENSED PROFESSIONAL ENGINEER
03/30/2022
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PROVINCE OF ONTARIO
DESIGNED BY

LICENSED PROFESSIONAL ENGINEER
03/30/2022
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CLIENT:

deep river

PROJECT NAME:

DEEP RIVER WATER TOWER REHABILITATION

Contract No. 2022-RFP-002

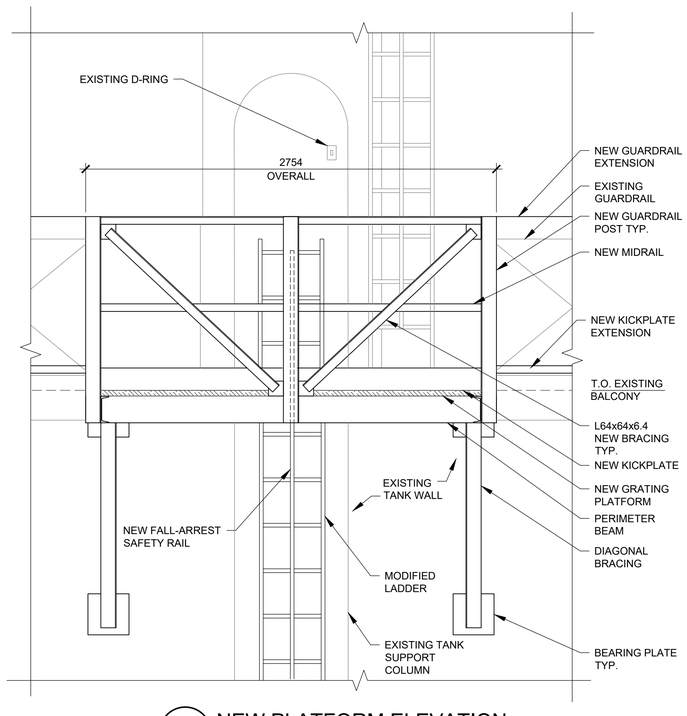
SHEET TITLE:

ENLARGED PLAN, DETAILS AND SECTION

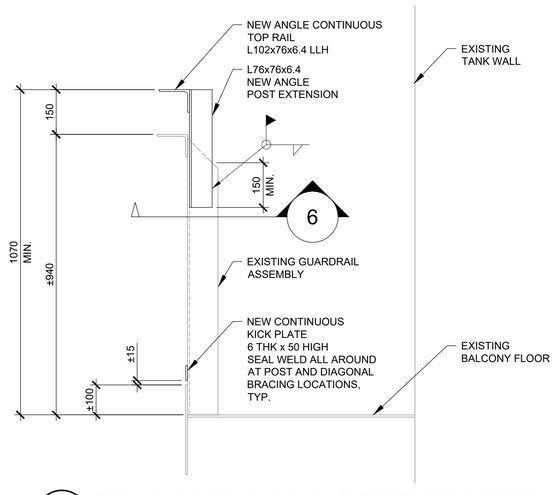
DISCIPLINE:

STRUCTURAL

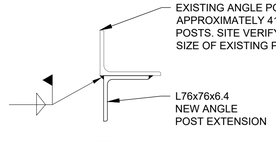
DRAFTER: EE	SCALE: --
DESIGNER: WC	DATE: 2022/03/21
APPROVER: BY	APPROVER: MSL
PROJECT No: A001231	DRAWING No: S02
SHEET No: 5 of 6	



4 NEW PLATFORM ELEVATION
SCALE: 1:20



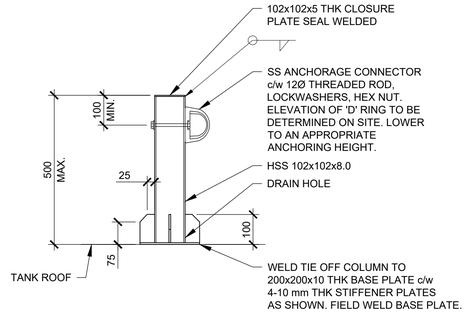
5 TYP. GUARDRAIL HEIGHT EXTENSION DETAIL
SCALE: 1:10



6 SECTION
SCALE: 1:5

NOTES:

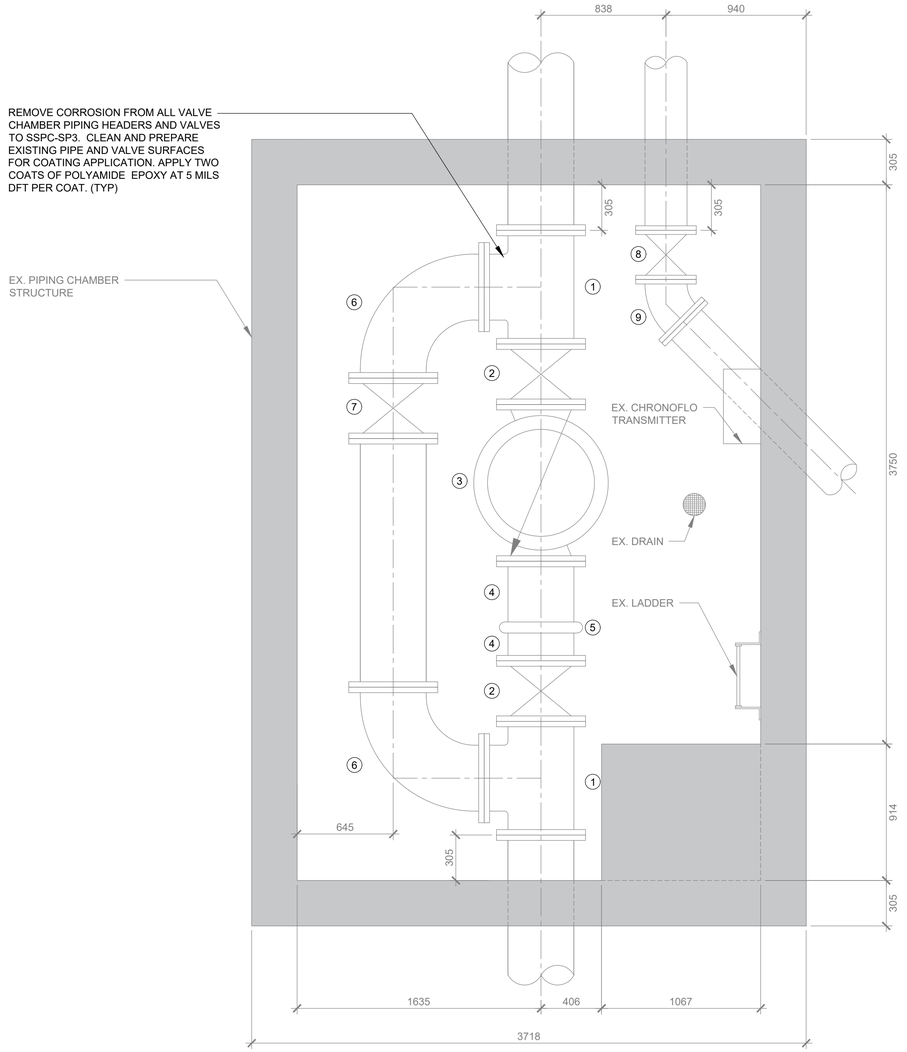
1. SITE VERIFY GUARDRAIL ASSEMBLY.
2. THE HEIGHT EXTENDED GUARDRAIL SYSTEM SHALL BE ANALYZED TO SATISFY OBC. STRENGTHEN MEMBERS AS REQUIRED.



NOTES:

1. TIE OFF COLUMN TO BE DESIGNED FOR A LOAD OF 22kN APPLIED IN ANY DIRECTION AT ANY HEIGHT.
2. EXACT LOCATION OF TIE OFF COLUMN TO BE AGREED UPON WITH ENGINEER.
3. STRENGTHEN EXISTING ROOF PLATES WITH REINFORCEMENT PLATES AS REQUIRED.

7 TYPICAL TIE OFF COLUMN
SCALE: 1:10



1 VALVE CHAMBER DETAIL
SCALE: 1:20

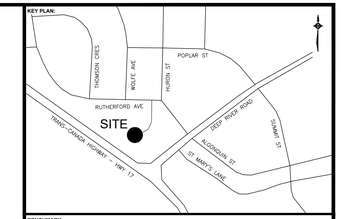
2 VALVE CHAMBER DETAIL
SCALE: NTS

EXISTING PIPING LIST		
MARK	SIZE (mm)	DESCRIPTION
1	400 x 400 x 350	125# C.I. TEE REDUCING OUTLET
2	400	JENKINS FIG. 402 N.R.S. GATE VALVE F.F. & D.
3	400	ROSS FIG. 34 MODEL 40 DA.W.R. ALTITUDE VALVE
4	400	CLASS 125 C.I. PIPE. ONE END F.F. & D. ONE END VICTAULIC SHOULDER
5	400	VICTAULIC COUPLING FOR SHOULDER PIPE
6	350	125# 90° L.R., C.I. ELBOW
7	350	JENKINS FIG. 402 N.R.S. GATE VALVE F.F. & D.
8	250	JENKINS FIG. 402 N.R.S. GATE VALVE F.F. & D.
9	250	125# 45° C.I. ELBOW

NOTES:

1. EXISTING DRAWING TAKEN FROM PROCTOR & REDFERN CONSULTING ENGINEERS, TOWN OF DEEP RIVER, ELEVATE TANK FOUNDATION, VALVE CHAMBERS & PUMPHOUSE ALTERATIONS, TANK FOUNDATION-STRUCTURAL & PIPING, DWG. No. B-5747-19, DATED MARCH 1961, E0# 5747.
2. ALL EXISTING INFORMATION TO BE SITE MEASURED AND VERIFIED.

KEY PLAN:



BENCHMARK:

0	MAR 2022	ISSUED FOR TENDER	MSL
No.	Date	Description	By

STAMPS:

LICENSED PROFESSIONAL ENGINEER
03/30/2022
M.S.LUKASIEWICZ
100172388
PROVINCE OF ONTARIO

DESIGNED BY APPROVED BY

ENGINEER:

CIMA+

T: 519-772-2299
900 -101 Frederick Street, Kitchener, ON N2H 6R2 CANADA

CLIENT:

deep river

PROJECT NAME:

DEEP RIVER WATER TOWER REHABILITATION

Contract No. 2022-RFP-002

SHEET TITLE:

VALVE CHAMBER DETAILS

DISCIPLINE:

PROCESS

DRAFTER: EE	SCALE: --
DESIGNER: NG	DATE: 2022/03/18
APPROVER: BY	APPROVER: MSL
PROJECT No: A001231	DRAWING No: D01
SHEET No: 6 of 6	