

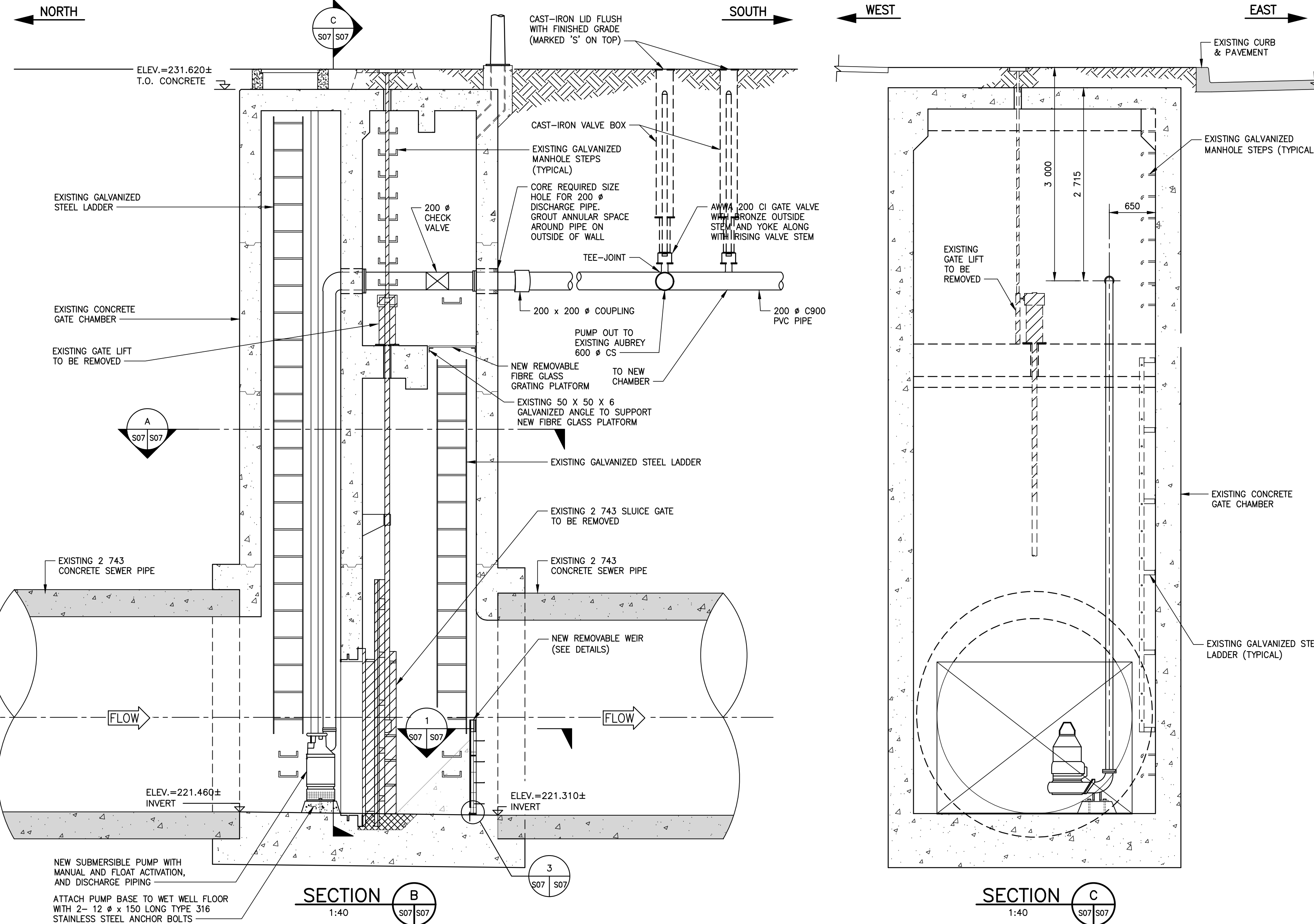
**ROOF PLAN**  
1:40

**SECTION A**  
1:40

**WEIR DETAIL 1**  
1:40

**WEIR CONNECTION DETAIL 2**  
1:5

**WEIR BASE CONNECTION DETAIL 3**  
1:5



**SECTION B**  
1:40

**SECTION C**  
1:40

**NOTES:**

- ALLOWABLE SHUT DOWN TIME: 4.0 HOURS (APPROXIMATE)
1. REMOVE EXISTING SLUICE GATE.
  2. PROVIDE TEMPORARY PUMPING OF WASTEWATER DURING CONSTRUCTION.
  3. INSTALL MECHANICAL AND ELECTRICAL WORK AS INDICATED AND ACCORDING TO MANUFACTURER'S SPECIFICATION.
  4. EXCAVATIONS TO BE BACKFILLED WITH CLASS 3 OR 5 BACKFILL IN ACCORDANCE WITH C/W 2030 AND SD-002.
  5. GASKETS TO BE FULL FACED, 3 THICK RED RUBBER.
  6. CONTRACTOR TO CONFIRM ALL DIMENSIONS BEFORE ASSEMBLING.

**MISCELLANEOUS METALS AND ACCESSORIES:**

1. STEEL SECTIONS AND PLATES SHALL CONFORM TO CAN/CSA G40.20/G40.21, GRADE 300W, EXCEPT W, HP AND HSS SECTIONS WHICH SHALL BE GRADE 350W.
2. WELDING MATERIALS SHALL CONFORM TO CSA W59.
3. ANCHOR BOLTS AND FASTENERS SHALL CONFORM TO ASTM A276, TYPE 316 STAINLESS STEEL, OF AMPLE SECTION TO SAFELY WITHSTAND THE FORCES CREATED BY OPERATION OF THE EQUIPMENT OR THE LOAD TO WHICH THEY WILL BE SUBJECTED.
4. ALL EXPOSED OR PARTIALLY EXPOSED MISCELLANEOUS METAL WORKS, INCLUDING NAILS, BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED. GALVANIZING SHALL CONFORM TO CSA G184 MINIMUM COATING OF 600 g/m<sup>2</sup>.
5. WHERE GALVANIZING IS DAMAGED, REPAIR WITH TWO COATS OF A ONE COMPOUND ZINC-RICH COATING CONTAINING 96% NON-TOXIC ELECTROLYTIC ZINC POWDER (PURE TO 99.9955%) AND NON-TOXIC SOLVENT.

**WOOD:**

1. ALL LUMBER SHALL CONFORM TO LATEST NLGA STANDARD GRADING RULES FOR CANADIAN LUMBER.
2. ALL LUMBER SHALL BE PRESSURE TREATED D FIR-L No. 1 OR 2 GRADE WITH PRESERVATIVE IN ACCORDANCE WITH CSA 080 AND CSA 080.3
3. ALL HARDWARE INCLUDING NAILS, BOLTS, WASHERS AND PLATES SHALL BE HOT DIP GALVANIZED.
4. CUTTING, FRAMING AND BORING OF TREATED TIMBER WILL BE DONE BY THE SUPPLIER BEFORE TREATMENT. HOWEVER FIELD CUTTING, FITTING AND MATCHING MAY BE REQUIRED AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY CUTS AND HOLES IN A TRUE AND WORKMANLIKE MANNER.
5. THE CONTRACTOR SHALL APPLY HEAVY COAT OF TIMBER PRESERVATIVE TO ALL AREAS WHERE THE SEAL OF TREATMENT HAS BEEN REMOVED IN THE PROCESS OF FIELD CUTTING AND FRAMING CONFORMING TO CSA-080 WOOD PRESERVATIVE AND CSA-080.2 PRESERVATIVE TREATMENT OF LUMBER BRIDGE TIES, AND NAIL TIES BY PRESSURE PROCESS.

**NAILS:**

1. NAILING REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CSA 086.
2. NAILS SHALL BE HOT DIPPED GALVANIZED FRAMING NAILS WITH MINIMUM NAIL LENGTH OF TWICE THE PLANK THICKNESS AND SPACED AT 250mm IN AN ALTERNATING PATTERN FROM EACH SIDE OF TIMBER. NAILS SHALL BE 25mm FROM EDGE OF TIMBER AND HAVE A MAXIMUM END DISTANCE OF 100mm.

NOTE: These design documents are prepared solely for the use by the party with whom the design professional has entered into a contract and there are no representations of any kind made by the design professional to any party with whom the design professional has not entered into a contract.



METRIC  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**APEGM**  
Certificate of Authorization  
MMM Group Limited  
No. 4531

G.M.M. ELEV.	
DESIGNED BY	BB/MRI
CHECKED BY	EH
DRAWN BY	KD
APPROVED BY	JPL
HOR. SCALE	AS NOTED
VERTICAL SCALE	AS NOTED
1 ISSUED FOR TENDER	13/09/16 BB
NO. REVISIONS	DATE BY
	13/09/2016

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HOR. SCALE: AS NOTED  
VERTICAL SCALE: AS NOTED  
RELEASED FOR CONSTRUCTION  
DATE: 13/09/2016

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BID OPPORTUNITY: 789-2016  
PLOT DATE: 14/09/2016

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

OUTFALL GATE CHAMBER UPGRADES  
RUBY STREET  
SRS OUTFALL GATE CHAMBER  
EXISTING SRS CHAMBER UPGRADES  
STRUCTURAL DETAILS

CONSULTANT DRAWING NUMBER: 5516047 - S07  
SHEET: 11 OF 34  
CITY DRAWING NUMBER: LD-7932