

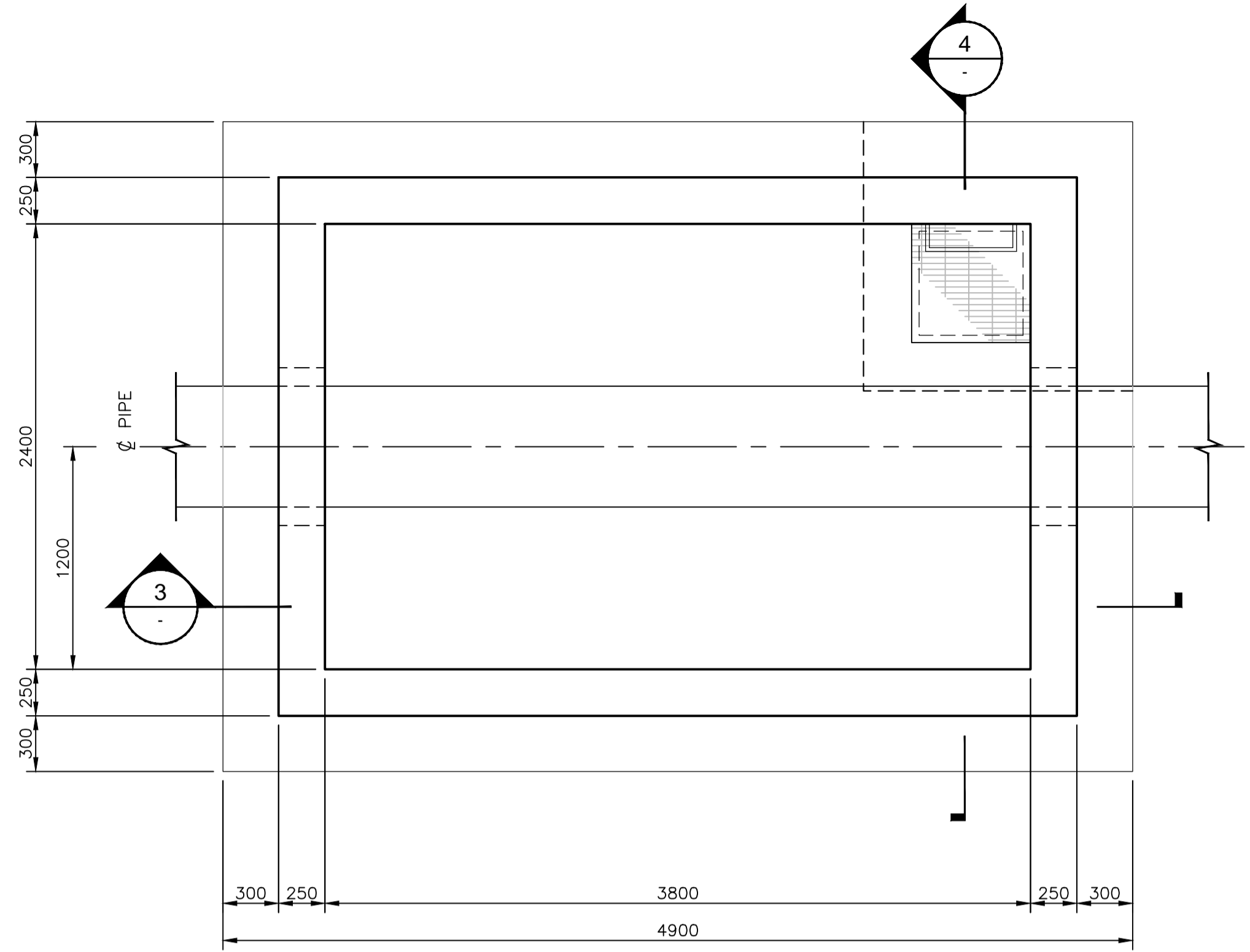
GENERAL NOTES:

- A. DESIGN LOADS AND SPECIFICATIONS**
- LIVE LOADS:**
 - VALVE CHAMBER ROOF: 12 kPa (EXCLUDING 600 COVER)
 - LATERAL EARTH PRESSURE:
 $P = 0.65 \times 18 \text{ kN/m}^3 \times H + 15 \text{ kPa SURCHARGE}$
 - DEAD LOADS:**
 - MATERIAL SELF WEIGHT
 - SOIL COVER: 10.8 kPa (600 m SOIL COVER; UNIT WEIGHT OF SOIL = 18 kN/m³)
 - CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT TO DETERMINE GROUNDWATER CONDITIONS AT THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH DEWATERING AND WATER CONTROL ASSOCIATED WITH GROUNDWATER INFILTRATION AND SURFACE WATER RUNOFF IN THE EXCAVATIONS.
 - REFERENCE SPECIFICATIONS:**
 - CITY OF WINNIPEG CW2030 AND CW2160
 - CAN/CSA S16.1 - "LIMIT STATE DESIGN OF STEEL STRUCTURES"
 - CSA A23.3 - "DESIGN OF CONCRETE STRUCTURES FOR BUILDINGS"
 - CSA A23.1 - "CONCRETE MATERIALS AND METHODS OF CONSTRUCTION"
 - CANADIAN NATIONAL BUILDING CODE, 2010
 - CONTRACTOR SHALL CHECK ALL DIMENSIONS AND DETAILS PRIOR TO CONSTRUCTION TO ENSURE COMPATIBILITY. ANY DISCREPANCIES OR DESIRED MODIFICATIONS SHALL BE REPORTED TO THE CONTRACT ADMINISTRATOR. ALL MATERIAL AND WORKMANSHIP TO CONFORM TO NATIONAL BUILDING CODE, 2010.
- B. FOUNDATIONS**
- FOUNDATION DESIGN IS BASED ON GEOTECHNICAL INVESTIGATIONS BY: TREK GEOTECHNICAL NORTH KILDONAN FEEDERMAIN DETAILED DESIGN - GEOTECHNICAL REPORT, DATED JANUARY 15, 2014.
 - THE CONTRACTOR IS ADVISED THAT THE GEOTECHNICAL REPORT IS FOR GENERAL INFORMATION ONLY AND IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CITY AND THE CONTRACT ADMINISTRATOR SHALL NOT BE HELD RESPONSIBLE FOR ANY INACCURACIES, ERRORS, AND/OR OMISSIONS AND THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS PREVAILING AT THE SITE.
 - IF CONDITIONS PREVENT THE WORK FROM BEING PERFORMED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR.

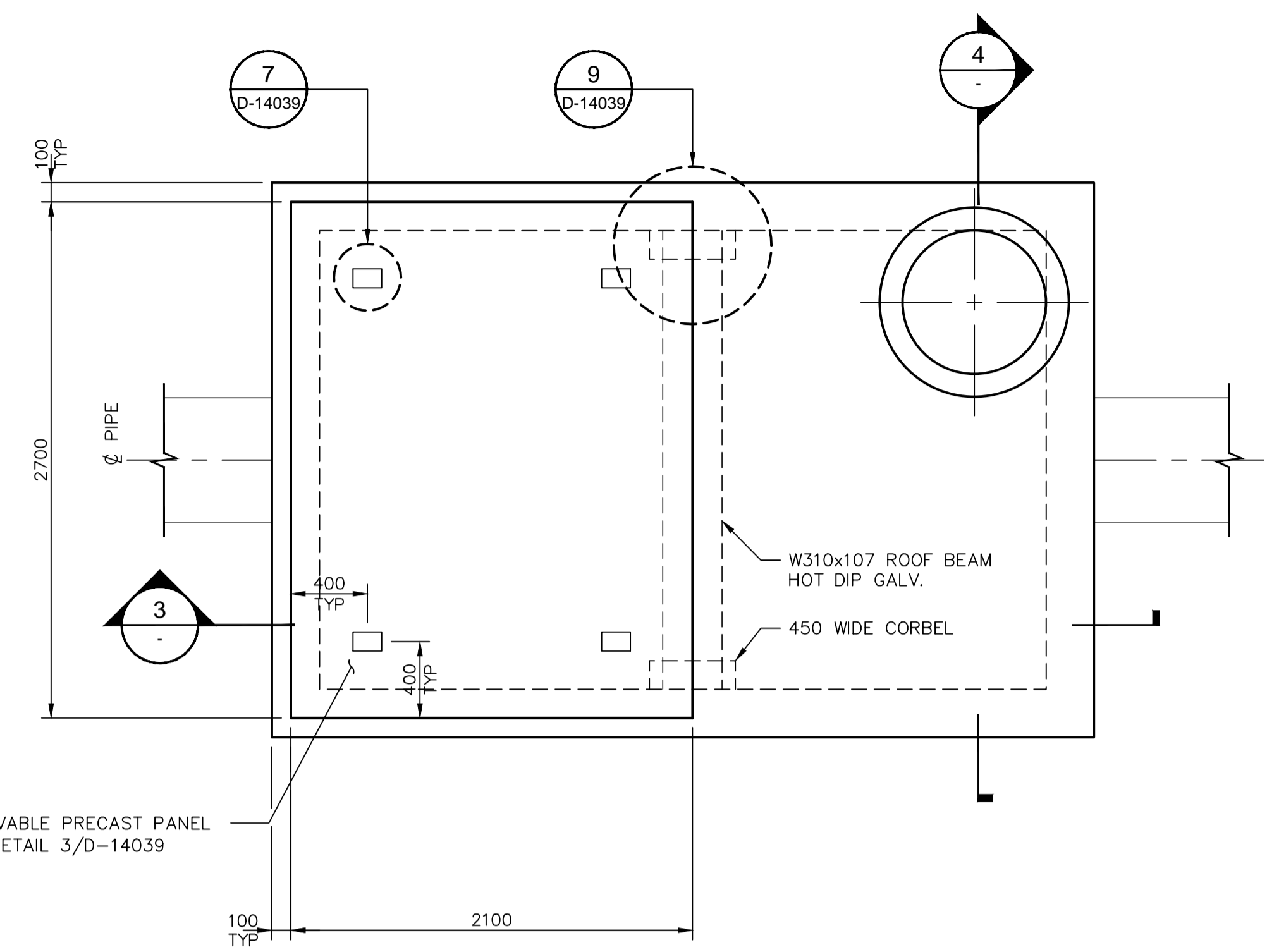
- C. REINFORCED CONCRETE**
- CONCRETE**
 - CONCRETE AS PER SPECIFICATIONS AND CW 2160.
 - ALL CONCRETE AND REINFORCED CONCRETE IN ACCORDANCE WITH CSA A23.1.
 - FOR CONCRETE FINISHES REFER TO SPECIFICATIONS.
 - PROVIDE 20 mm CHAMFER AT ALL EXPOSED EDGES UNLESS NOTED OTHERWISE.
 - REINFORCEMENT**
 - ALL CONCRETE REINFORCEMENT IN ACCORDANCE WITH CSA G30.18.
 - REINFORCING BARS TO BE BILLET STEEL, DEFORMED BARS, GRADE 400W.
 - ACCURATELY PLACE REINFORCEMENT AND SECURE AGAINST DISPLACEMENT DURING CONCRETE PLACING. SUPPORT SHALL BE BY MEANS OF GALVANIZED OR PLASTIC CHAIRS, SPACERS OR GALVANIZED HANGERS AND THE RECOMMENDATIONS OF REINFORCING STEEL - MANUAL OF STANDARD PRACTICE (REINFORCING INSTITUTE OF CANADA).
 - USE CLASS 'B' SPLICE UNLESS SHOWN OTHERWISE ON DRAWINGS. STAGGER SPLICES IN SLABS.
 - PROVIDE 50 mm COVER FOR REINFORCEMENT UNLESS NOTED OTHERWISE.

- D. EXCAVATION AND BACKFILLING**
- WHERE TEMPORARY UNBALANCED EARTH PRESSURES ARE LIABLE TO DEVELOP ON WALLS OR STRUCTURES.
 - PERMIT CONCRETE TO CURE FOR A MINIMUM 14 DAYS OR UNTIL IT HAS SUFFICIENT STRENGTH TO WITHSTAND EARTH AND COMPACTION PRESSURE AND APPROVAL OBTAINED FROM CONTRACT ADMINISTRATOR
 - ERECT BRACING OR SHORING TO COUNTERACT UNBALANCE AND LEAVE IN PLACE UNTIL REMOVAL IS APPROVED BY CONTRACT ADMINISTRATOR.
 - REFER TO CW 2030 FOR BACKFILLING REQUIREMENTS.

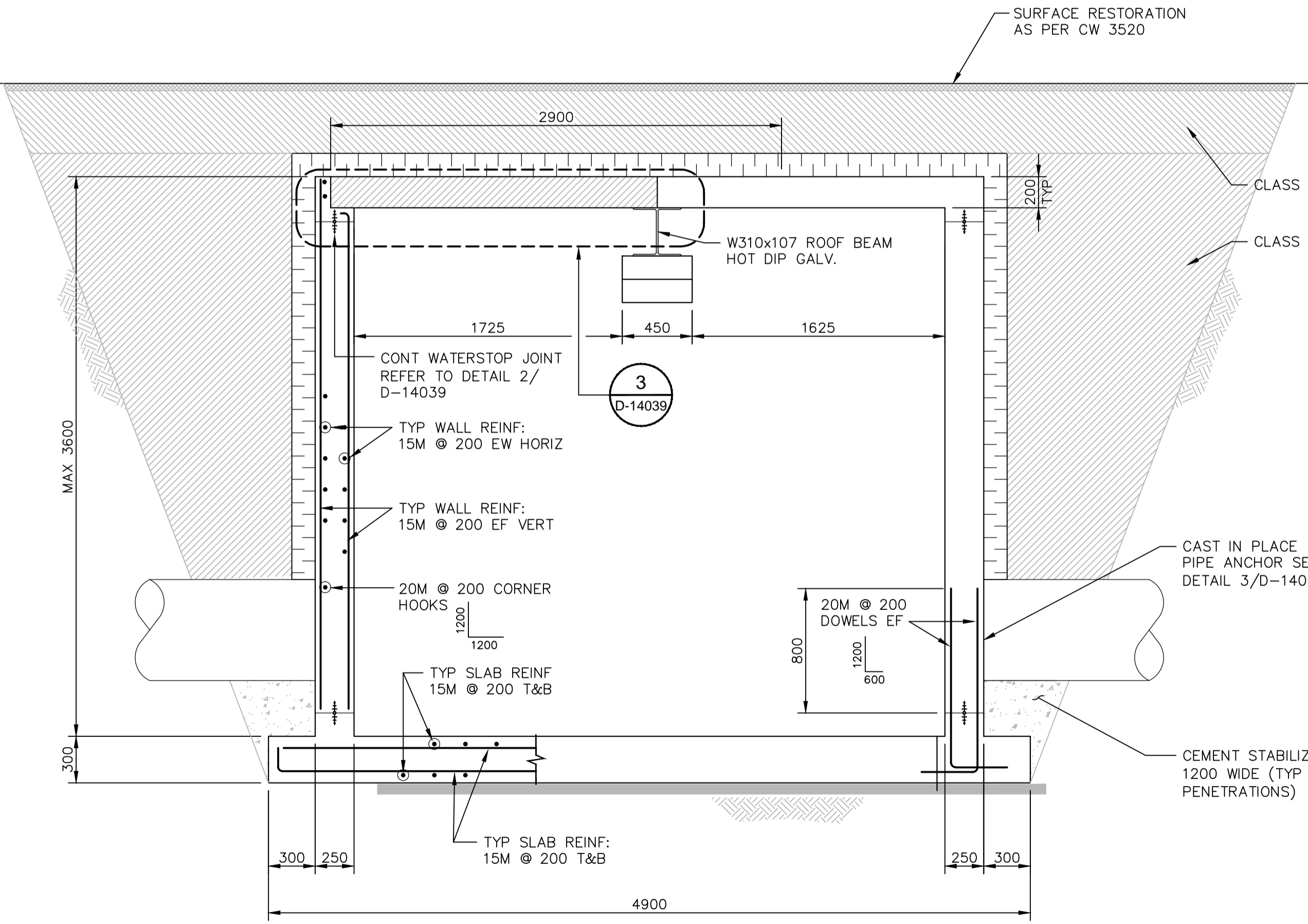
- E. COORDINATION**
- NOT ALL OPENINGS AND EMBEDMENTS ARE SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO THE SPECIFICATIONS AND DRAWINGS OF OTHER DISCIPLINES.
 - INSTALL ALL MECHANICAL & ELECTRICAL EQUIPMENT AND ANCHOR BOLTS IN ACCORDANCE WITH CERTIFIED SHOP DRAWINGS SUPPLIED BY THE MANUFACTURER AND REVIEWED BY THE CONTRACT ADMINISTRATOR.
 - REFER TO CIVIL DRAWINGS FOR ELEVATIONS AND EQUIPMENT DETAILS.



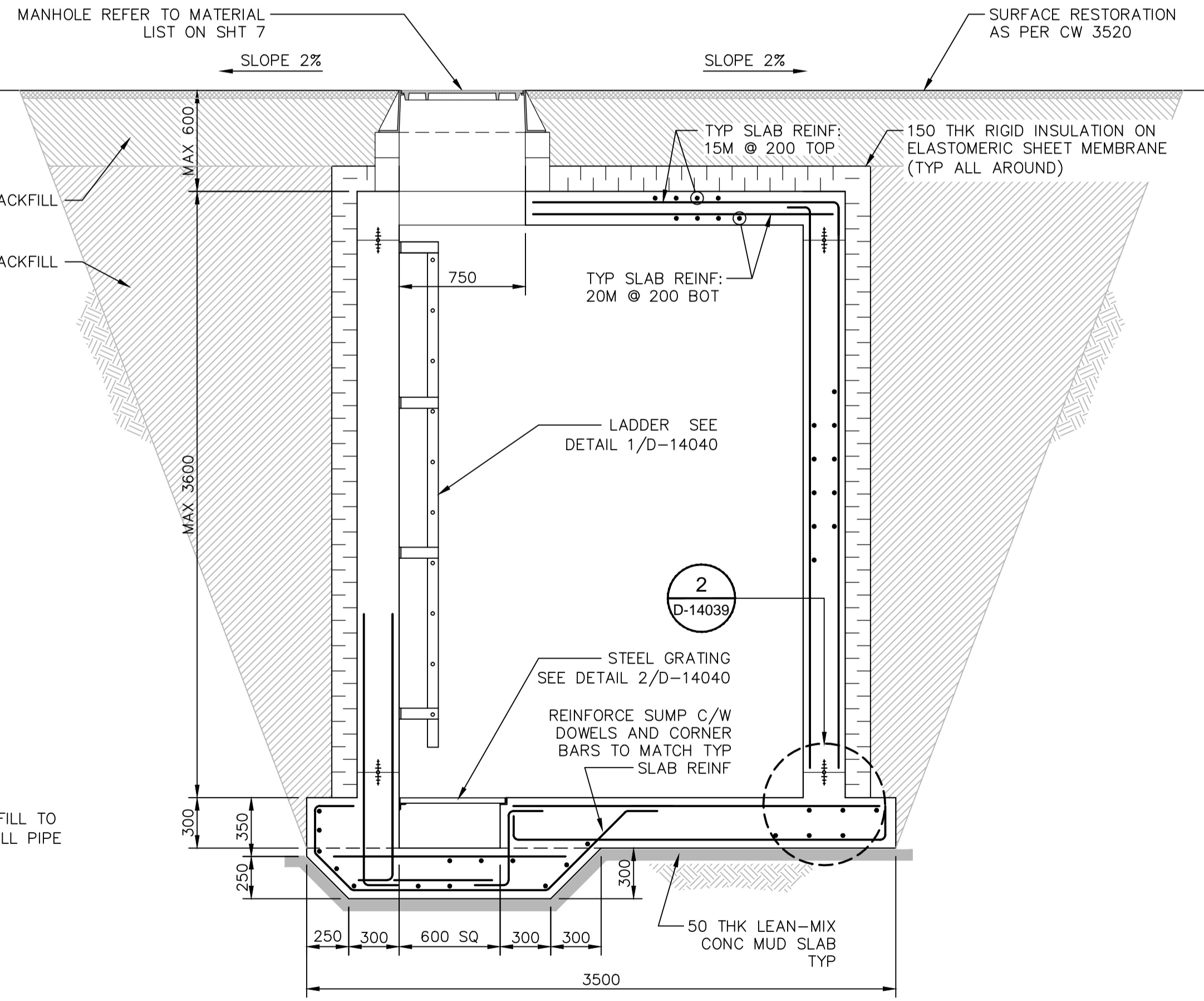
1 PLAN 1:25



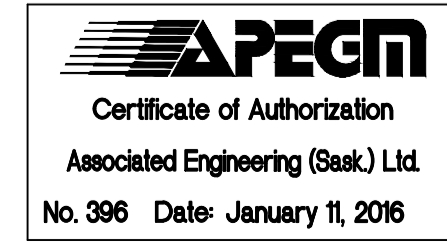
2 PLAN 1:25



3 SECTION 1:25



4 SECTION 1:25



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 CLIENT REVIEW	15-JUL-08 MJ
NO.	REVISIONS

Associated Engineering

DESIGNED BY: KD
CHECKED BY: JL

DRAWN BY: MD
APPROVED BY: JL

SCALE:
HORIZONTAL AS SHOWN
VERTICAL AS SHOWN

DATE: 2016 01 11

ENGINEER'S SEAL

PROVINCE OF MANITOBA
2016-01-11
J. S.
BETKE
MEMBER
REGULATED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NUMBER
20134376

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

NORTH KILDONAN FEEDERMAIN
VALVE CHAMBERS AND CONNECTIONS

VALVE CHAMBER
PLANS AND SECTIONS

SHEET 6 OF 9
CITY DRAWING NUMBER
D-14038