

X:\A-GCITY OF WINNIPEG - WATER & WASTE DEPARTMENT - 001210001203.00 - FERRY ROAD/CONTRACT 7/CAD/PRODUCTION DRAWINGS/C0749 1000120300-DWG-C0209 MH S700.DWG 2020-08-24 10:13 AM Ljubetelska, Nataliya

### GENERAL

1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MANITOBA BUILDING CODE 2011, MANITOBA WORKPLACE SAFETY AND HEALTH, LOCAL CODES, BYLAWS, ORDINANCES, AND SAFETY REGULATIONS.
2. THE COMPLETE WORK TO BE GOVERNED BY THE DICTATES OF GOOD PRACTICE IN ALL DETAILS OF MATERIALS AND METHODS EVEN IF NOT MINUTELY SPECIFIED.
3. THE DRAWINGS DESCRIBE THE COMPLETED PROJECT AND DO NOT INDICATE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY AND PERMANENT STRUCTURES, FORMWORK, FALSEWORK, SHORING, ETC., REQUIRED TO COMPLETE THE PROJECT. MAINTAIN THE SITE, AT LEAST ON A DAILY BASIS, FREE FROM ACCUMULATIONS OF WASTE MATERIAL AND DEBRIS. DISPOSE OF WASTE MATERIAL IN ACCORDANCE WITH LOCAL REGULATIONS.

### LOADING

ALL LOADS AND FORCES SHOWN ARE SERVICE (UNFACTORED) LOADS IN KILOPASCAL (kPa) AND KN UNLESS NOTED OTHERWISE.

1. DEAD LOADS  
SELF WEIGHT, MATERIALS OF CONSTRUCTION, MECHANICAL, ELECTRICAL AND PERMANENT EQUIPMENT.

2. LIVE LOADS
  - A) SUPERIMPOSED LIVE LOADS (UNFACTORED SERVICE)  
MANHOLE COVER HS 20 TRUCK
  - B) LATERAL EARTH PRESSURE  
EARTH PRESSURE COEFFICIENT, K 0.5  
BACKFILL DENSITY 2000 kg/m<sup>3</sup>

### CAST-IN-PLACE CONCRETE

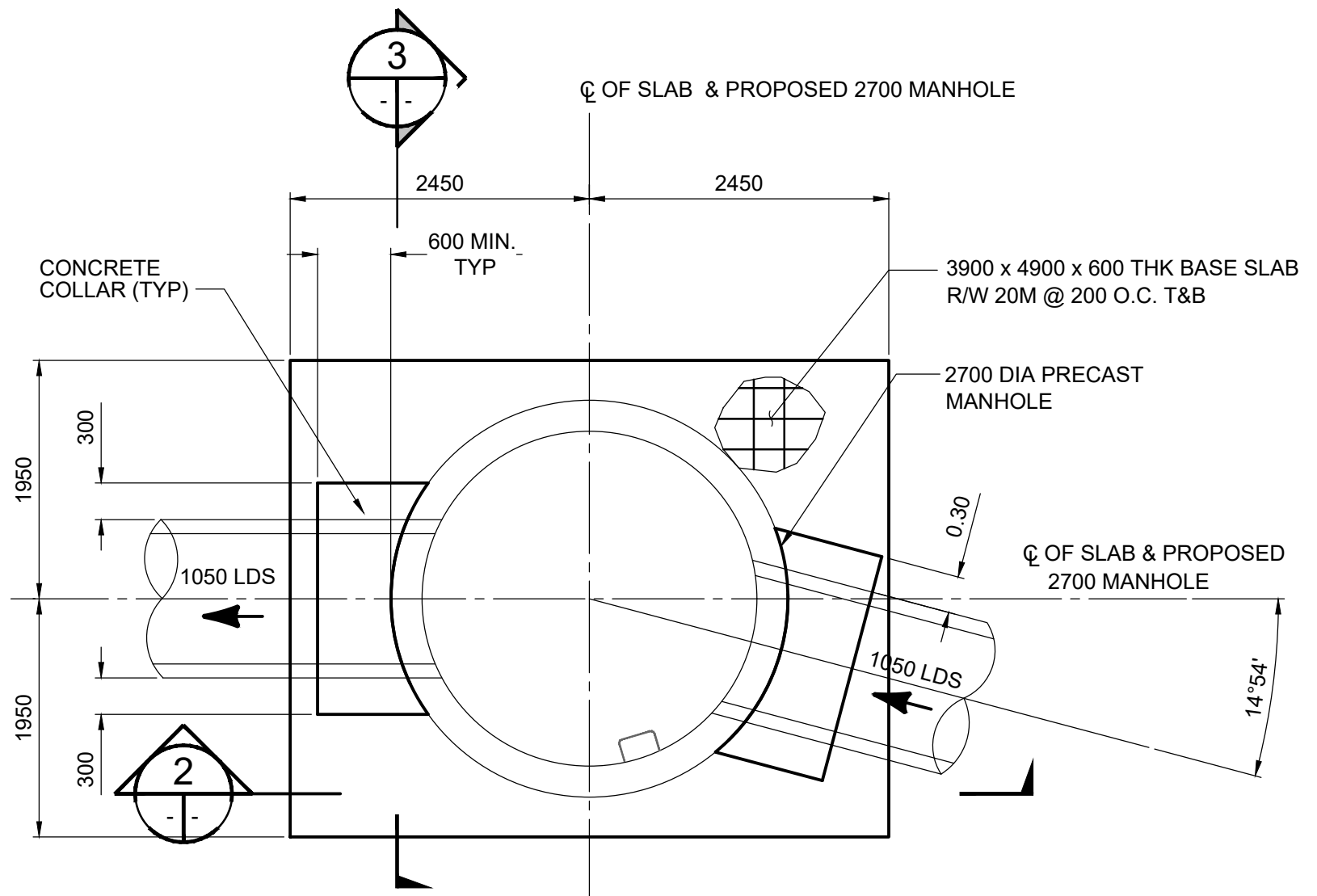
1. ALL CONCRETE MIXES, PLACING, CURING, AND TESTING TO BE IN ACCORDANCE WITH CSA-A23.1-09/A23.2-09 CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION/METHODS OF TEST AND STANDARD PRACTICES FOR CONCRETE
2. CONCRETE AND MIXTURES TO CONFORM TO CSA A3000-03 CEMENTITIOUS MATERIALS COMPENDIUM
3. CONCRETE MIXES TO BE IN ACCORDANCE WITH CSA-A23.1-09, ALTERNATIVE 1;

NO.	LOCATION	CLASS OF EXPOSURE	MAX WATER TO CEMENTIOUS MATERIAL RATIO	MIN. f <sub>c</sub> (MPa)	AIR CONTENT CATEGORY	CURING TYPE
1	ALL CONCRETE	S2	0.45	32 @ 56d	2	2

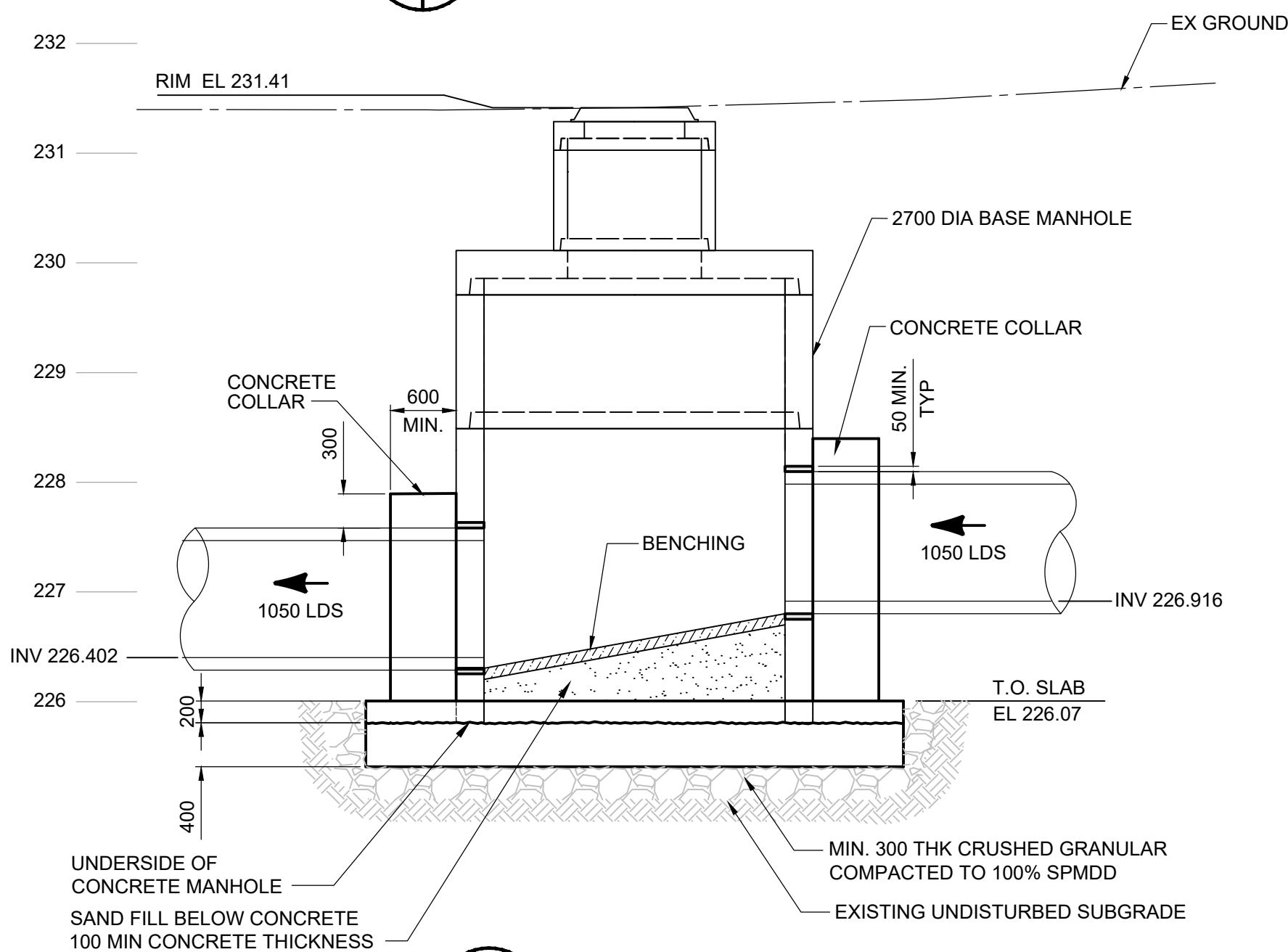
4. BEFORE PLACING SHOP DRAWINGS TO BE REVIEWED FOR EQUIPMENT, OPENINGS, ANCHOR BOLTS, EMBEDS, ETC. TO ENSURE COMPLETENESS.
5. CONCRETE SLAB ARE SMOOTH TROWEL FINISH.
6. TESTING:
  - A) AN INDEPENDENT INSPECTION/TESTING AGENCY WILL BE ENGAGED BY THE OWNER. RESULTS OF FIELD TESTS WILL BE REPORTED IMMEDIATELY TO THE CONTRACTOR. INSPECTION AND TESTING DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR QUALITY CONTROL AND CONTRACTUAL OBLIGATIONS.
  - B) TESTING FIRM WILL PREPARE THREE TEST CYLINDERS FROM EACH 50 CU.m. OF CONCRETE, OR FRACTION THEREOF, FOR EACH DAY, TYPE OF CONCRETE, OR TYPE OF STRUCTURAL COMPONENT. ONE SLUMP TEST AND ONE ENTRAINED AIR TEST FOR EACH SET OF CYLINDERS.
7. USE COLD WEATHER CONCRETING METHODS WHEN THE MEAN AMBIENT TEMPERATURE FALLS BELOW +5°C. ADDITIONAL TEST CYLINDERS WILL BE PREPARED DURING COLD WEATHER CONCRETING AND FIELD CURED UNDER SAME CONDITIONS AS CONCRETE WHICH THEY REPRESENT.

### CONCRETE REINFORCING

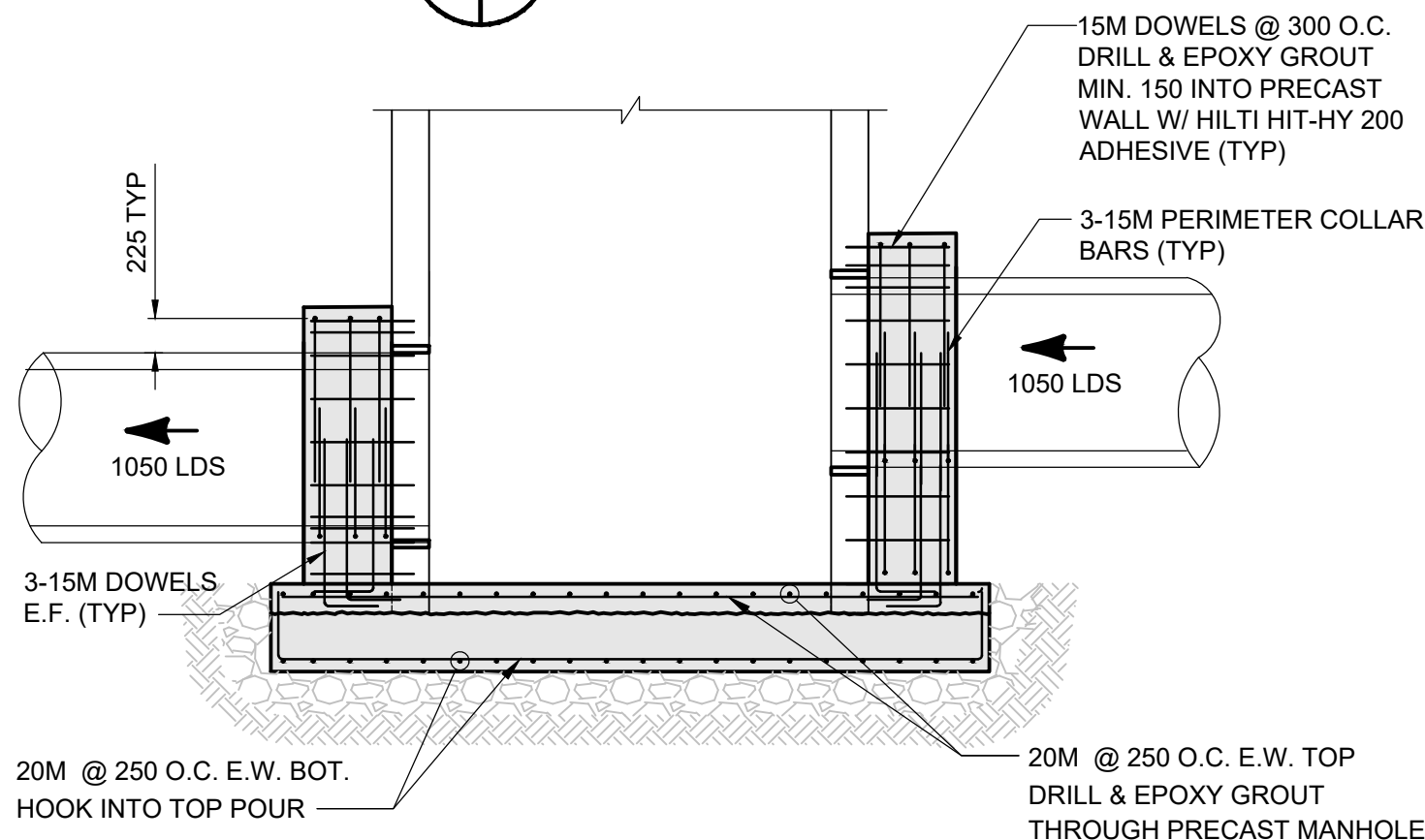
1. CONCRETE REINFORCEMENT 400 MPA DEFORMED BARS.
2. ALL STEEL TO BE DETAILED IN ACCORDANCE WITH CSA A23.1-09 CONCRETE MATERIALS AND STANDARD THE MANUAL OF PRACTICE BY THE REINFORCING INSTITUTE OF CANADA 2004.
3. CLEAR COVER TO REINFORCING TO BE:  
CONCRETE CAST AGAINST EARTH ..... 75mm  
ALL OTHER CONCRETE ..... 50mm
4. BEAMS AND SLABS: LAP TOP STEEL MIDSPAN AND BOTTOM STEEL OVER SUPPORTS.
5. PROVIDE LAPS TO CSA A23.3 OR THE FOLLOWING MINIMUMS.  
10M - 400mm  
15M - 500mm  
20M - 650mm
6. ALL REINFORCING TO BE HELD IN PLACE AND TIED WITH PROPER ACCESSORIES, HI-CHAIRS AND SPACERS. DETAILED, SUPPLIED AND INSTALLED ALL ACCESSORIES. HI-CHAIRS TO HAVE 4 LEGS AND TO BE STAPLED/ NAILED TO THE FORMWORK.
7. REINFORCING STEEL NOT TO BE WELDED, HEATED OR BENT ON-SITE WITHOUT PRIOR APPROVAL OF THE CONTRACT ADMINISTRATOR.



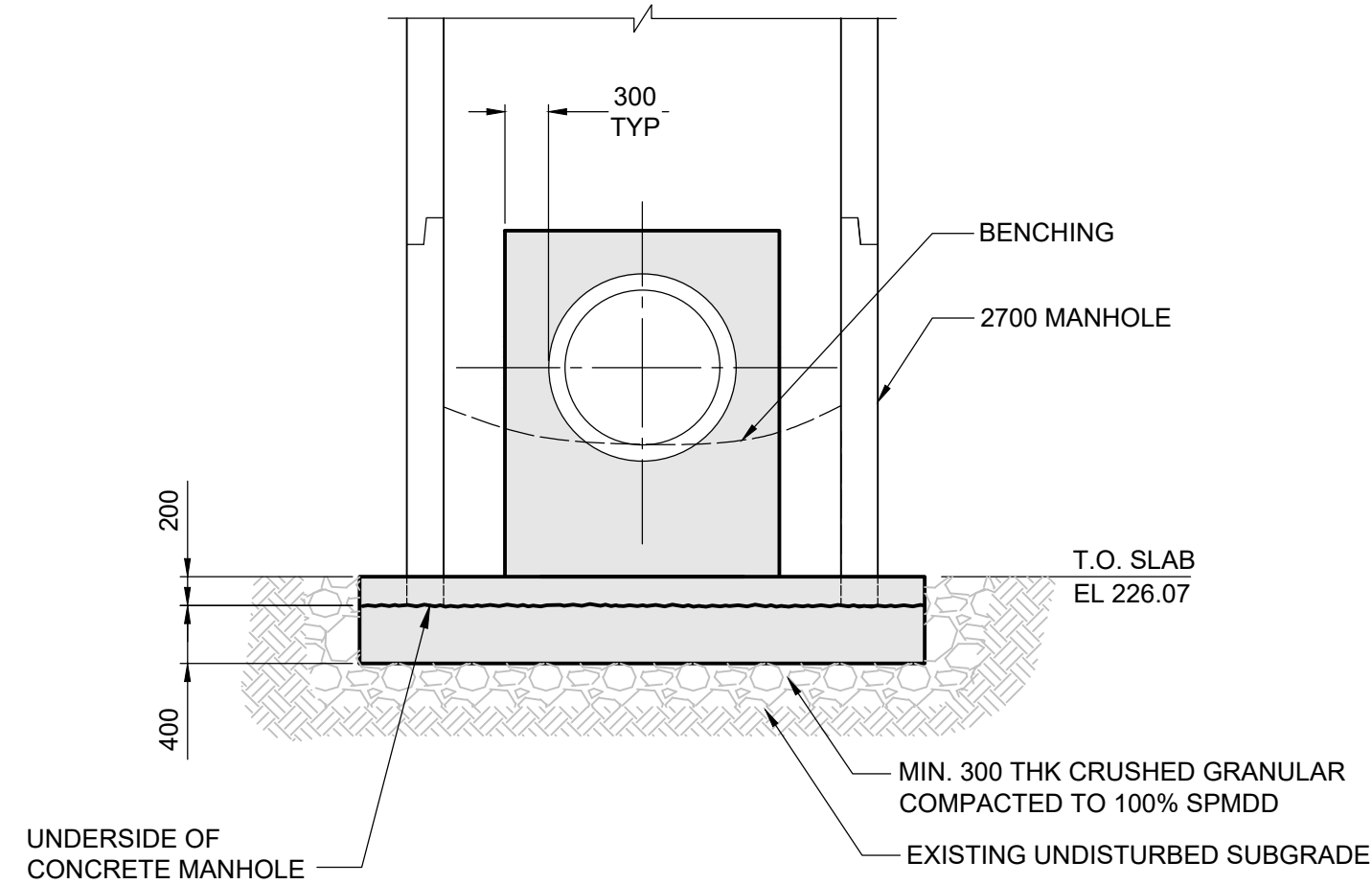
1 CONCRETE SLAB - PLAN  
1 : 50



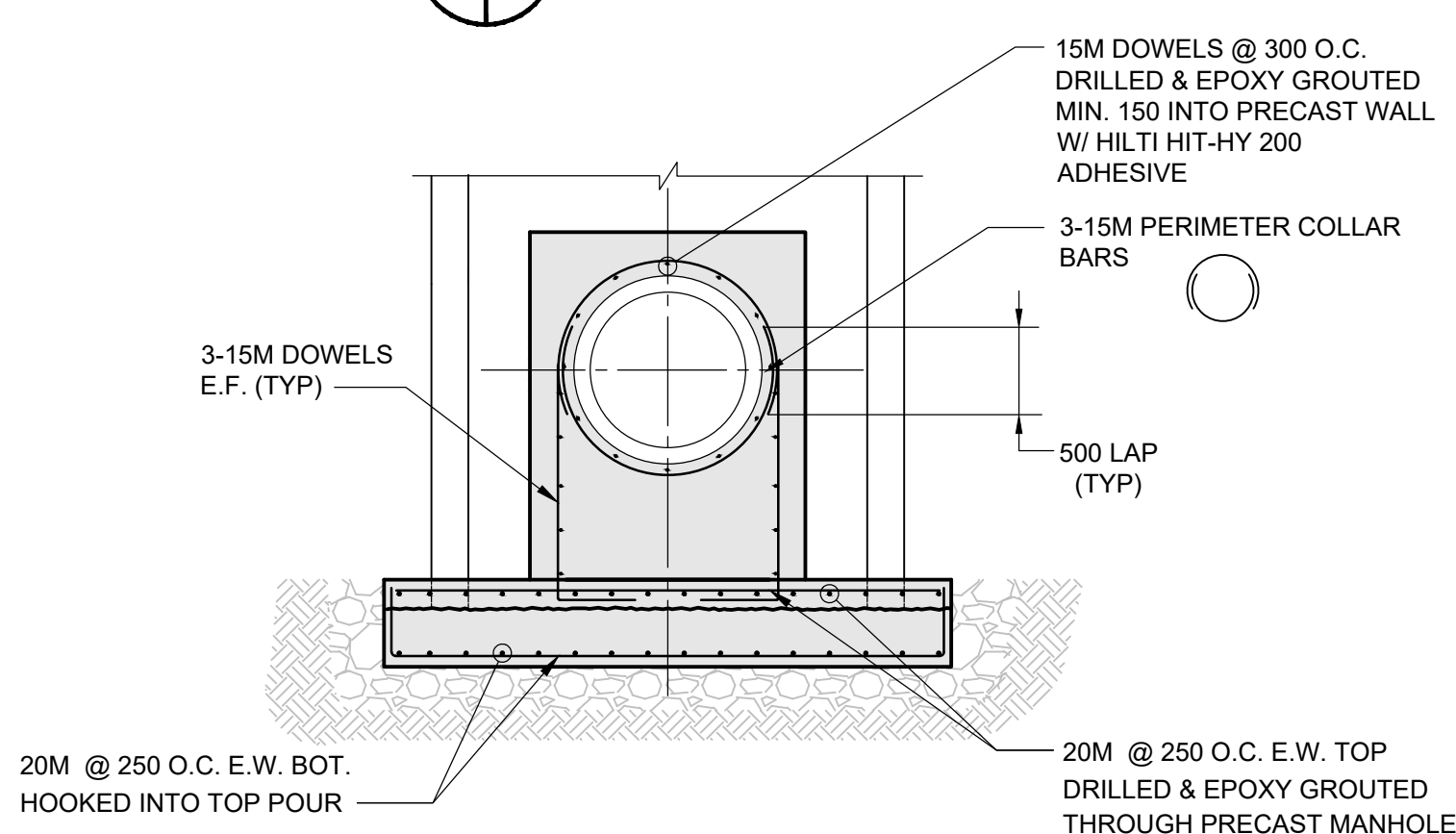
2 SECTION  
1 : 50



4 SECTION  
1 : 50



3 SECTION  
1 : 50



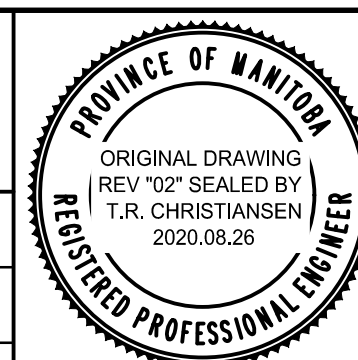
5 SECTION  
1 : 50

B.M. CITY OF WINNIPEG 38-069			
ELEV. 233.792m			
03	REISSUED FOR TENDER	20.09.03	TRC
02	REISSUED FOR APPROVAL	20.08.26	TRC
01	ISSUED FOR CONSTRUCTION	19.11.28	TRC
00	ISSUED FOR TENDER	19.09.26	TRC
NO.	REVISIONS	DATE	BY



TETRA TECH

DESIGNED BY	CM	CHECKED BY	KJM, TRC
DRAWN BY	GMD	APPROVED BY	GS
HOR. SCALE:	1 : 50	RELEASED FOR CONSTRUCTION	
VERTICAL:			
DATE	2020-09-03	DATE	



CONSULTANT DRAWING NO.  
1000120300-DWG-C0209



THE CITY OF WINNIPEG  
WATER AND WASTE DEPARTMENT

FERRY ROAD AND RIVERBEND  
COMBINED SEWER RELIEF WORKS  
CONTRACT 7C

BOURKEVALE PARK  
MANHOLE S700  
BASE AND COLLAR DETAILS

CITY DRAWING NUMBER

LD-9542

SHEET 9 OF 9

C0749



Certificate of Authorization  
Tetra Tech Canada Inc.  
No. 6499

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

TENDER No. 572-2020