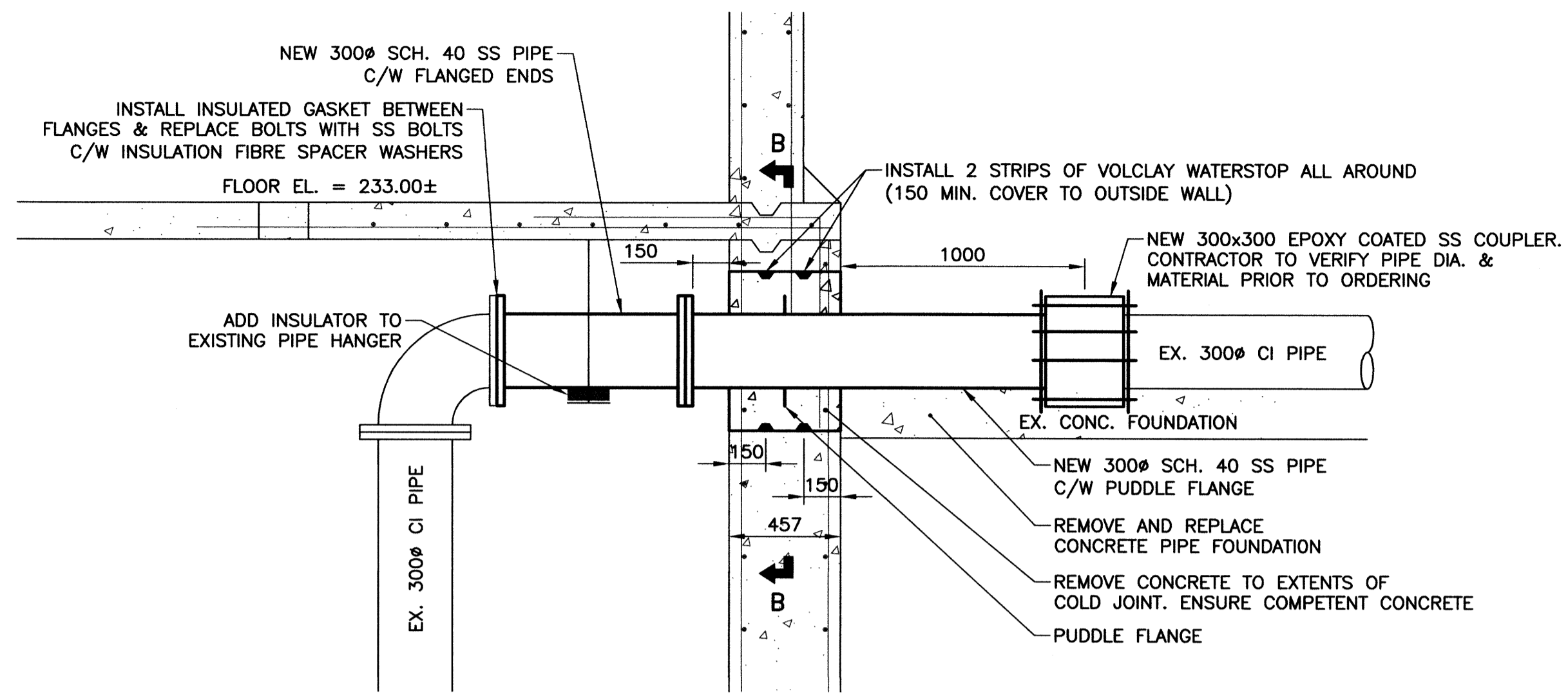
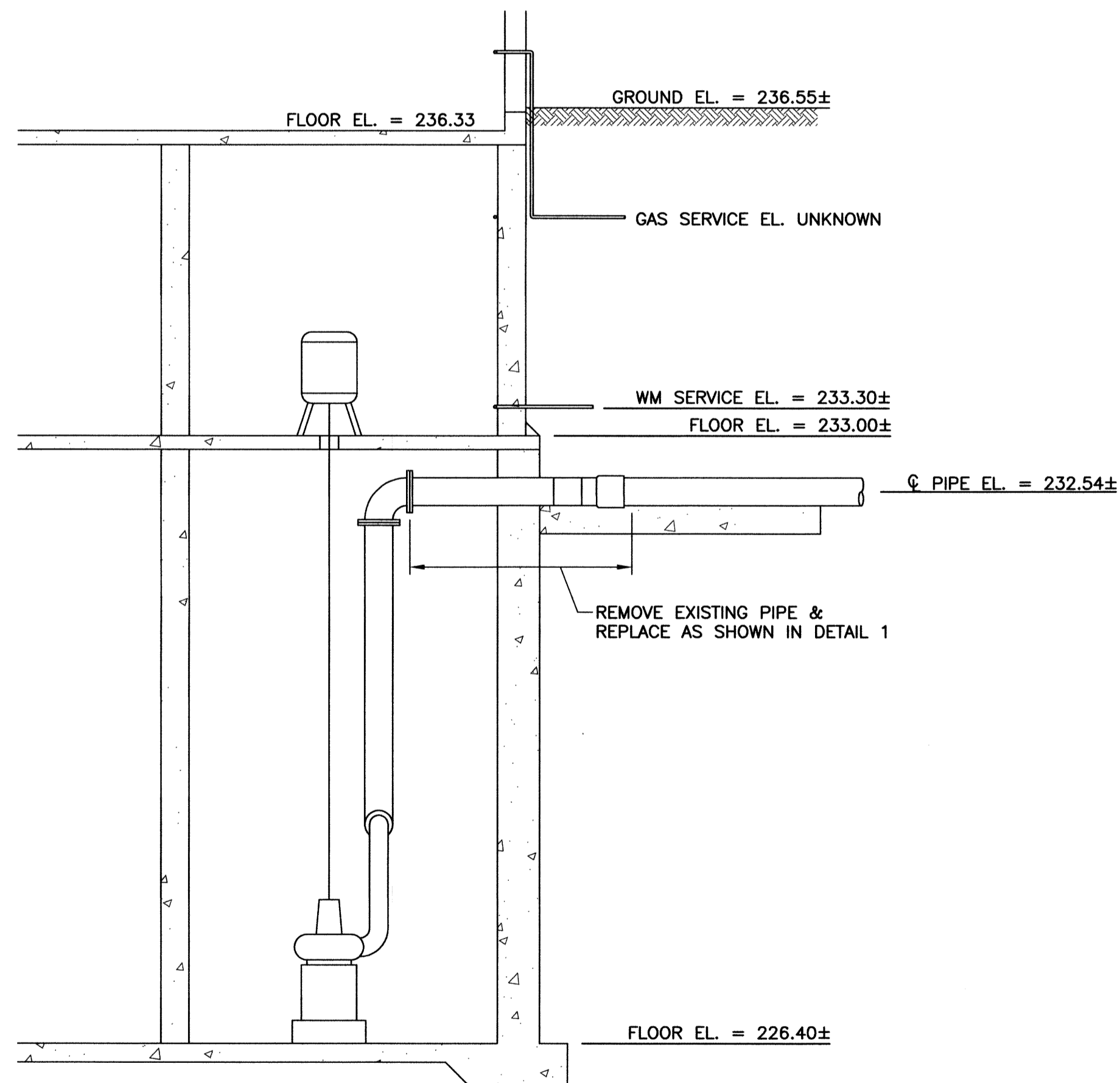


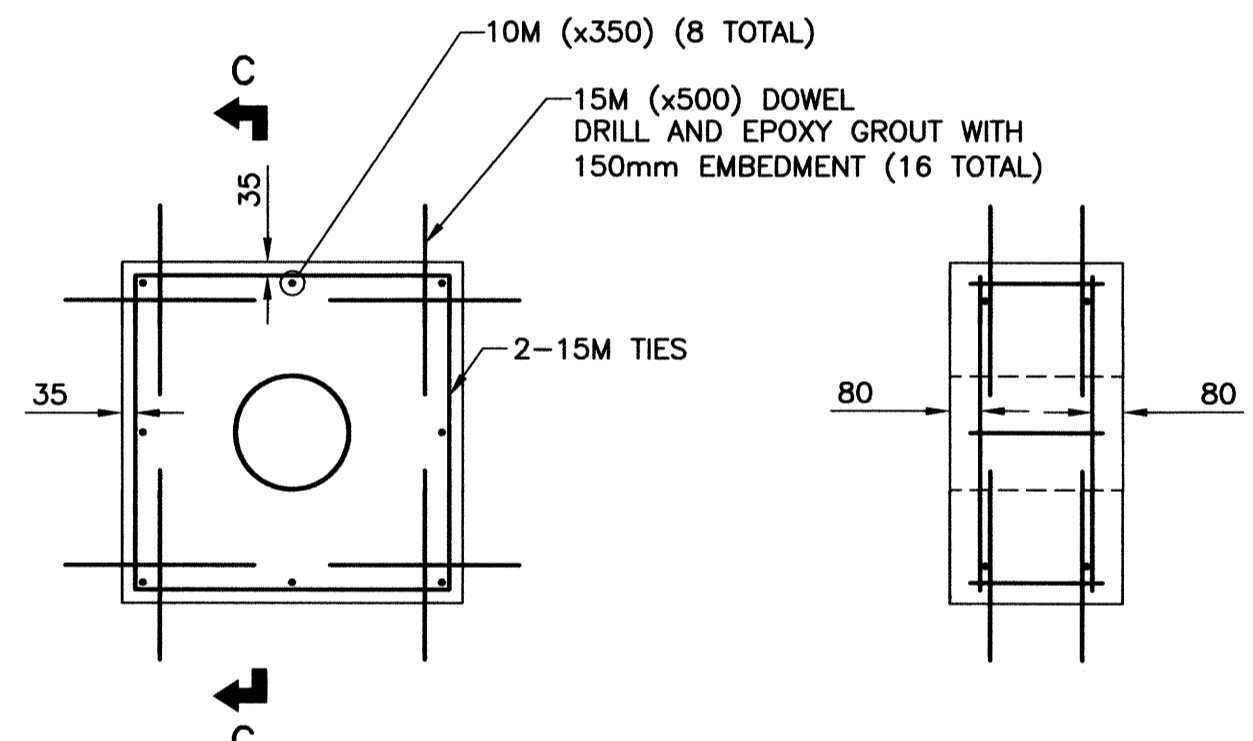
PUMPING STATION PLAN
SCALE: 1:50



DETAIL 1
SCALE: 1:20



SECTION A - A
SCALE: 1:50



SECTION B - B
SCALE: N.T.S.

SECTION C - C
SCALE: N.T.S.

CONCRETE:

- CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CSA A23.1 (LATEST). SEE BELOW FOR MIX REQUIREMENTS.
- MIX WATER TO BE POTABLE.
- ADMIXTURES SHALL NOT BE USED UNLESS SPECIFIED HEREIN OR APPROVED BY THE CONTRACT ADMINISTRATOR. CALCIUM CHLORIDE SHALL NOT BE USED.
- WHERE NOTED IN SECTION BONDING AGENTS SHALL BE USED TO ADHERE NEW CONCRETE TO EXISTING CONCRETE OR STEEL. ACCEPTABLE PRODUCT: SIKADUR 32 HI-MOD (EPOXY), SIKALATEX R (ACRYLIC, MIX INTO GROUT) OR APPROVED EQUAL IN ACCORDANCE WITH B6.
- DESIGN, FABRICATE AND ERECT FORMWORK/SHORING IN ACCORDANCE WITH CAN/CSA-S269.3 (LATEST). ALLOW SUFFICIENT CONCRETE CURING TIME PRIOR TO REMOVAL.
- GROUT REINFORCING DOWELS WITH EPOXY GROUT, HILTI HIT-HY150 MAX OR APPROVED EQUAL IN ACCORDANCE WITH B6. GROUT BASE PLATES WITH SIKALATEX R STANDARD OR APPROVED EQUAL IN ACCORDANCE WITH B6. PLACE AND CURE ALL GROUT WITHIN TEMPERATURE RANGE RECOMMENDED BY MANUFACTURER.
- PROVIDE ADEQUATE COLD/HOT WEATHER PROTECTION AS REQUIRED DURING CURING PERIOD.

CONCRETE MIX DESIGNS:

CONCRETE EXPOSURE CLASS	F1
/INFILL 28 DAY COMP. STRENGTH	30 MPa
CEMENT	TYPE GU
W/C RATIO	0.50
AGGREGATE SIZE (MAX.)	20mm
ENTRAINED AIR	5%-8%
SLUMP (MAX.)	90mm (±10mm)

REINFORCING STEEL:

- REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BARS CONFORMING TO CSA G30.18 (LATEST). GRADES TO BE: 400 MPa FOR 15M BARS AND LARGER; 300 MPa FOR 10M BARS.
- REINFORCING STEEL SHALL BE CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH THE CONCRETE.

PROPERTY LIMITS DELINEATION

DELINEATION OF PROPERTY LIMITS AS SHOWN ON THIS DWG DOES NOT REPRESENT A "LEGAL SURVEY". KGS GROUP MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF PROPERTY LIMITS DELINEATED ON THIS DWG, NOR ON THE DIMENSIONAL ACCURACY OF DWG FEATURES RELATIVE TO THOSE PROPERTY LIMITS.

WARNING

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
- SEE PROVINCIAL REGULATION 210/72 FOR DETAILS.



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

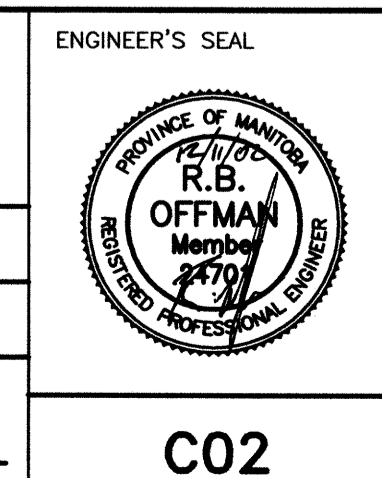
300 LBS	LAND DRAINAGE SEWER	300 LBS	TEST HOLE				
250 WWS	WASTE WATER SEWER	250 WWS	GUY WIRE				
	GAS		LIGHT STANDARD				
	HYDRO		BACK OF CURB				
	M.T.S.		CONCRETE				
150 WM	WATERMAIN	150 WM	ASPHALT				
+	HYDRANT	+	SIDEWALK				
⊗	VALVE	⊗	PROPERTY LINE				
○	MANHOLE	○	SURVEY BAR				
□	CATCH BASIN	□	GEODETIC BENCHMARK				
▽	CURB INLET	▽	ELEVATION	231.334	32.231		
•	POLES	•					
	LEGEND-PLAN						
	PROPOSED						
	EXISTING						

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 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. 41-036	IN MEAN OF WESTWOOD DR. & BERRY AVE. 100m ON TOP OF CURB
ELEV. 235.938	x 2.4m HIGH PIPE, 4.7m E. OF S. BOUND TRAFFIC
	LINE OF WESTWOOD DR. & 76m N. OF E. CONC. PART OF BERRY AVE.
0	ISSUED FOR TENDER
12/11/02	DATE
12/10/26	DATE

DESIGNED BY	RBO	CHECKED BY	RBO
DRAWN BY	GEL	APPROVED BY	RBO
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION:	
VERTICAL:	N/A	DATE	12/10/26



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

PROJECT TITLE: WESTWOOD WASTEWATER PUMPING STATION STANDBY ENGINE AND FORCEMAIN WALL INSERT REPLACEMENT

SHEET OF CITY DRAWING NUMBER

C02