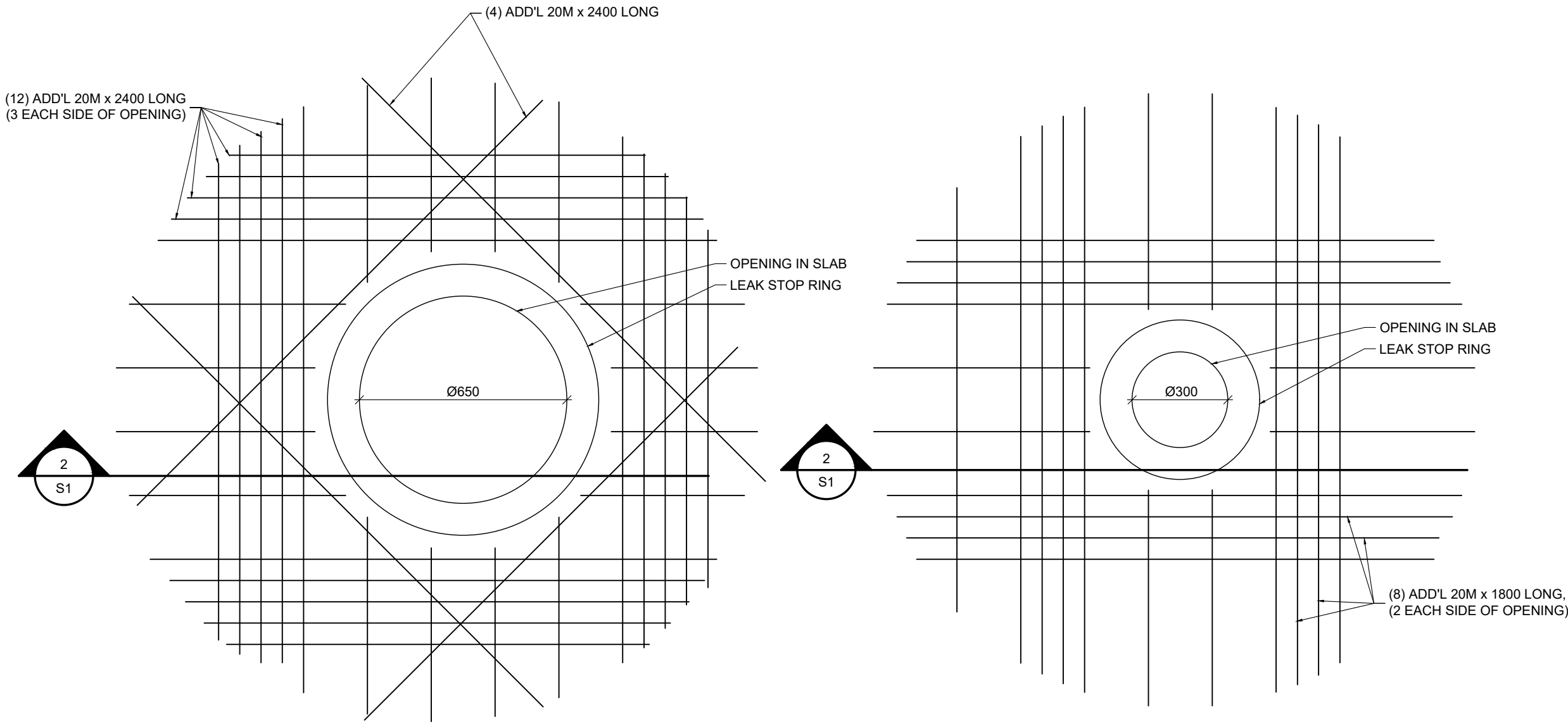
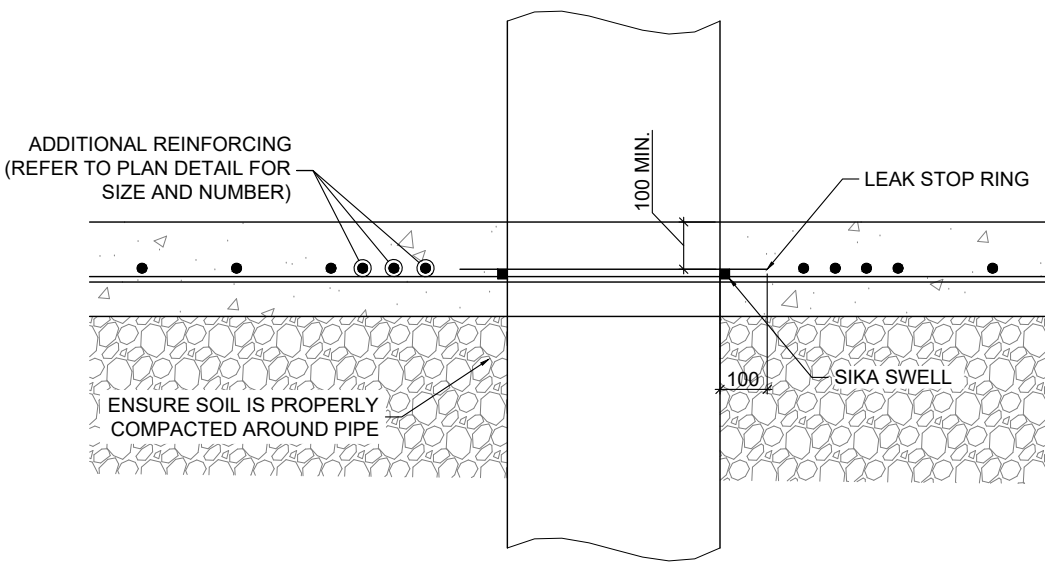


FOUNDATION PLAN
MAX TANK HEIGHT = 17.2m

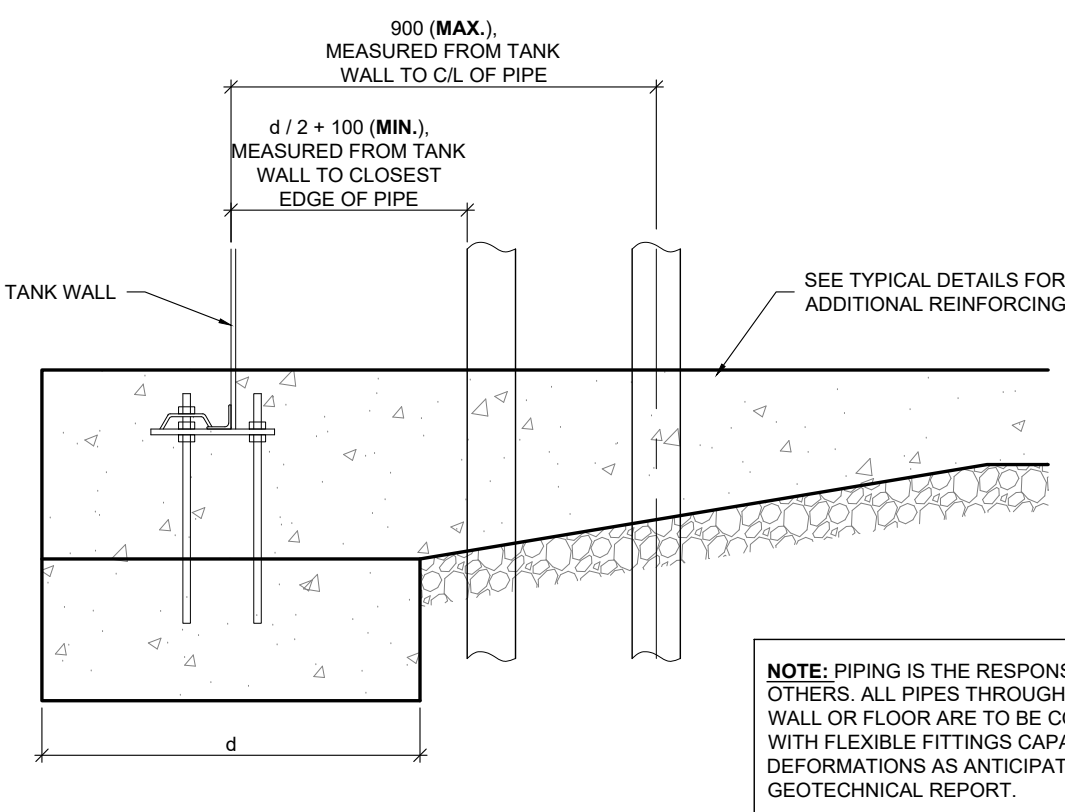


TYPICAL PIPE PENETRATION
MAX PIPE DIAMETER OF 650mm
MAXIMUM FOUR ADJACENT REBARS CUT

TYPICAL PIPE PENETRATION
MAX PIPE DIAMETER OF 300mm
MAXIMUM TWO ADJACENT REBARS CUT



PIPE PENETRATION SECTION



PIPE PENETRATION ALLOWABLE DISTANCES

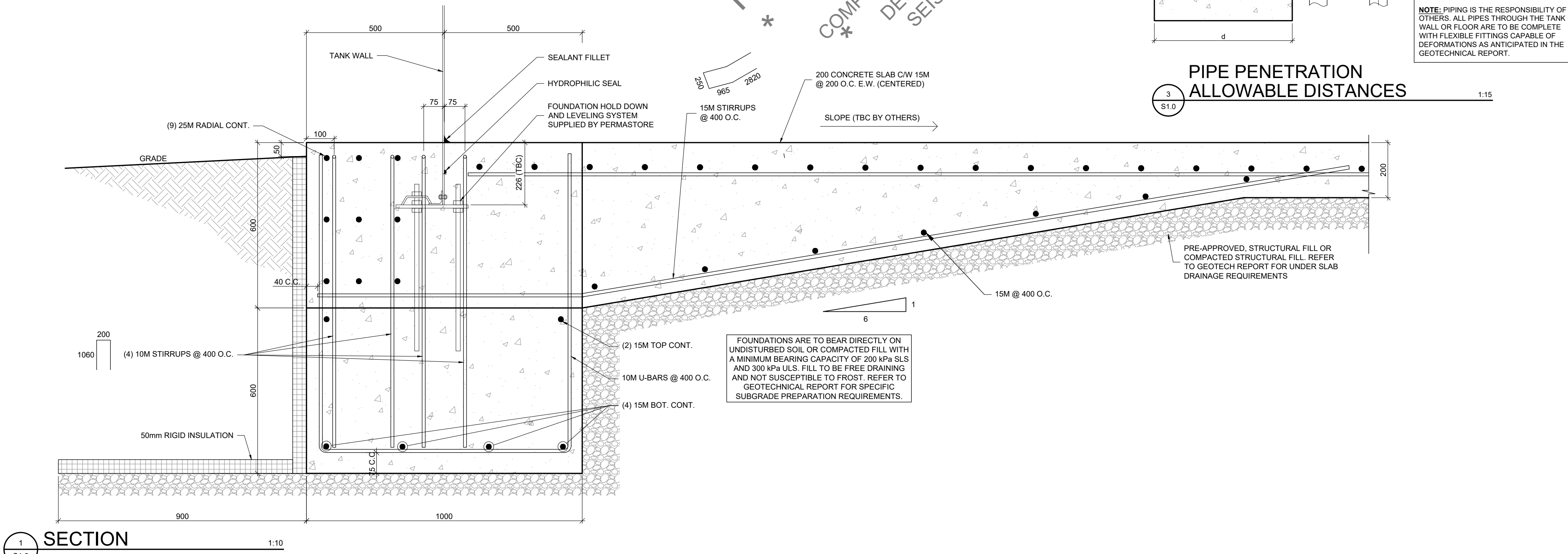
CONSTRUCTION NOTES:

- A. GENERAL
- ALL WORK SHALL CONFORM TO THE CURRENT VERSION OF THE ONTARIO BUILDING CODE AND ALL STANDARDS REFERENCED WITHIN, LOCAL REGULATIONS AND BYLAWS, AND THE OCCUPATIONAL HEALTH AND SAFETY ACT FOR CONSTRUCTION PROJECTS. THE LATEST VERSIONS OF STANDARDS SHALL APPLY.
 - READ THESE DRAWINGS IN CONJUNCTION WITH ALL RELATED CONTRACT DOCUMENTS AND CONSULTANT DRAWINGS.
 - THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS WHICH MAY ADVERSELY AFFECT THE PROPER COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS IN RELATION TO THE DRAWINGS AND NOTIFY THE ENGINEER TO ALL DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.
 - DRAWINGS ARE NOT TO BE SCALED.
 - THE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE WITH THE PARTY WHOM THE ENGINEER HAS ENTERED INTO CONTRACT. THERE ARE NO REPRESENTATIONS MADE TO ANY PARTY WITH WHOM THE ENGINEER HAS NOT ENTERED INTO CONTRACT.
 - THE CONTRACTOR SHALL RETAIN AN INDEPENDENT TESTING AND INSPECTION COMPANY TO ENSURE THAT THE WORK IS DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS INCLUDING COMPACTION TESTING, REINFORCING STEEL PLACEMENT, CONCRETE TESTING AND STRUCTURAL STEEL.
 - THE ENGINEER SHALL BE GIVEN MINIMUM 24 HOURS NOTICE BY THE CONTRACTOR FOR ALL CONSTRUCTION REVIEWS. SITE VISITS AND REVIEWS BY THE ENGINEER OR HIS REPRESENTATIVE ARE INTENDED FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT. THE REVIEWS SHALL NOT MEAN THAT THE ENGINEER HAS SEEN ALL CONSTRUCTION PROCEDURES. REVIEW BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL THE REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS.
 - NO SUBSTITUTIONS FROM FROM THE SPECIFIED PRODUCTS AND MATERIALS ARE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
- B. DESIGN PARAMETERS
- CLIMATIC DESIGN DATA: CORNWALL, ON
- | | |
|----------------|--------------------|
| Is = 1.25 | Sa (0.2) = 0.819 |
| Ss = 2.2 kPa | Sa (0.5) = 0.474 |
| Sr = 0.4 kPa | Sa (1.0) = 0.246 |
| Cb = 0.8 | Sa (2.0) = 0.11 |
| Cw = 1.0 | Sa (5.0) = 0.0282 |
| Cs = 1.0 | Sa (10.0) = 0.0091 |
| Ca = 1.0 | PGA = 0.448 |
| q50 = 0.41 kPa | PGV = 0.323 |
| CATEGORY: 2 | SITE CLASS "C" |
| Iw = 1.25 | Ie = 1.5 |
- ALL SEISMIC DATA OBTAINED FROM NBCC 2020 SEISMIC HAZARD CALCULATOR TOOL
- C. ELEMENTS ARE TO BE DESIGNED IN ACCORDANCE WITH CURRENT VERSIONS OF OBC AND NBC STRUCTURAL COMMENTARIES USING THE ABOVE NOTED DESIGN PARAMETERS.
- C. FOUNDATIONS
- A SOIL INVESTIGATION HAS BEEN COMPLETED BY PATERSON GROUP AND DOCUMENTED IN THEIR GEOTECHNICAL REPORT, FILE NUMBER PGS299-1 DATED JUNE 8, 2020. THE CONTRACTOR IS TO READ AND FAMILIARIZE THEMSELVES WITH THIS DOCUMENT.
 - FOUNDATIONS ARE TO BEAR ON NATIVE SOIL OR PRE-APPROVED STRUCTURAL FILL WITH A MINIMUM BEARING CAPACITY OF 200 kPa SLS AND 300 kPa ULS.
 - REMOVE ALL TOP SOIL, ORGANIC MATERIAL, LOOSE FILL AND OTHER DELETERIOUS MATERIAL FROM THE BUILDING AREA PRIOR TO CONSTRUCTION.
 - SUB-EXCAVATE AND PLACE BACK IN EXCAVATED AREA IN 300mm (12") LIFTS COMPACTED BY HEAVY SHEEPS-FOOT TYPE ROLLER TO A MIN. 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD). REFER TO GEOTECH REPORT.
 - COMPACTED FILL BENEATH FOOTINGS AND FLOOR SLABS SHALL BE COMPACTED IN MAXIMUM 300mm (12") LAYERS.
 - PLACE ALL FOOTINGS EXPOSED TO FREEZING WEATHER MINIMUM 2.1m BELOW GRADE UNLESS OTHERWISE PROTECTED. PROTECT SOIL BELOW AND ADJACENT TO ALL FOOTINGS FROM FREEZING DURING CONSTRUCTION.
 - NECESSARY PRECAUTIONS SHALL BE TAKEN TO ENSURE EXISTING FOOTINGS ARE NOT DISTURBED OR UNDERMINED DURING CONSTRUCTION.
 - HORIZONTAL CONSTRUCTION JOINTS SHALL NOT OCCUR IN CONCRETE GRADE BEAM AND SLAB UNLESS APPROVED BY THE ENGINEER.
- D. CONCRETE
- CONCRETE WORK SHALL CONFORM TO CAN/CSA-A23.1, A23.2 AND A23.3.
 - CONCRETE PROPERTIES, (MINIMUM COMPRESSIVE STRENGTH MEASURED AT 28 DAYS UNLESS NOTED)
a) SEE CHART FOR CONCRETE TYPES

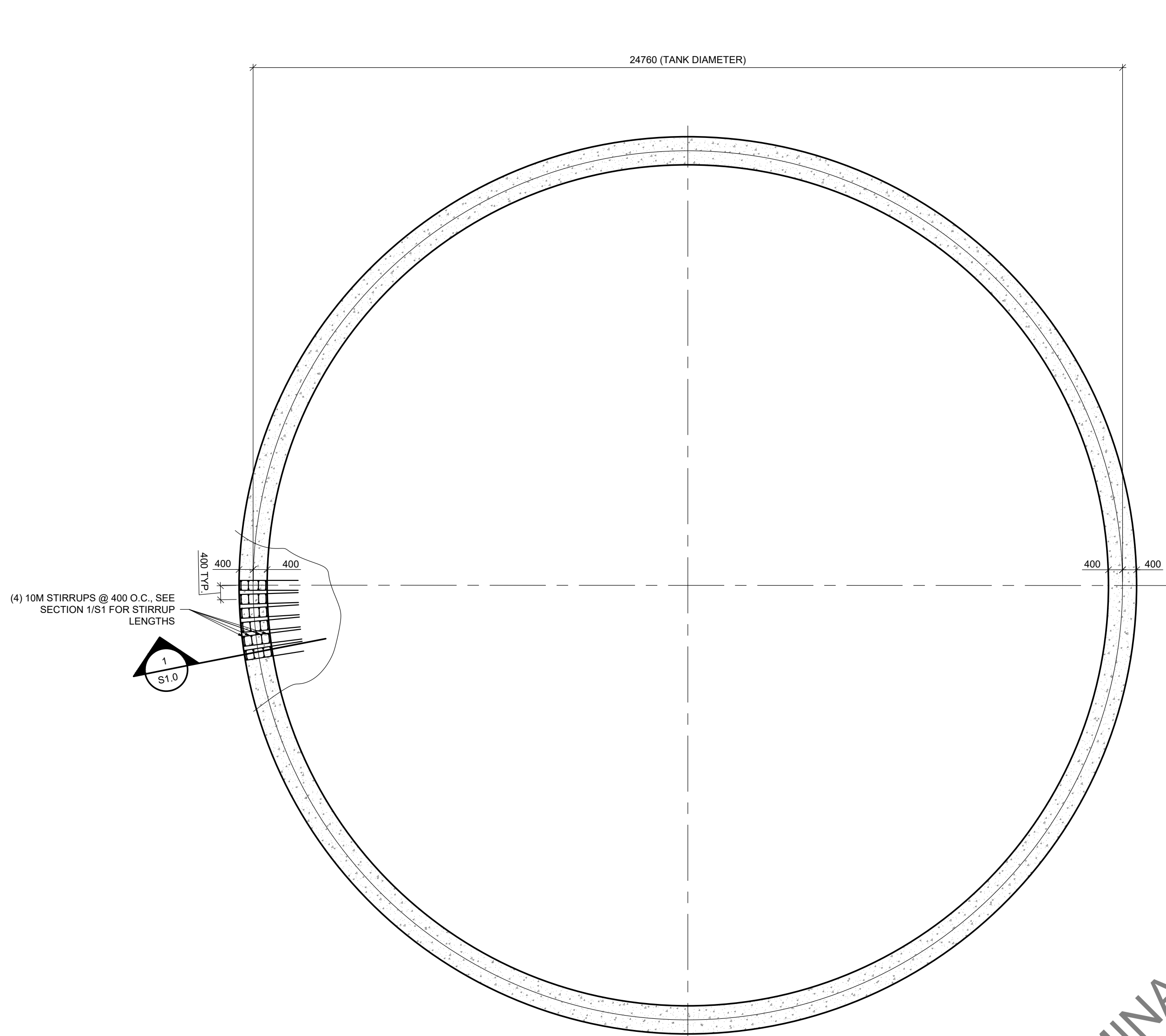
CONCRETE PROPERTIES		CSA CLASS	28 DAY COMP STRENGTH MPa	MAX. W/C RATIO	AIR CONTENT %	MAX. AGGREGATE mm	SLUMP mm
LOCATION							
FOUNDATION WALL / GRADE BEAM	F-2	25	0.55	4-7	20	80 ±30	
CONCRETE SLAB	F-1	30	0.50	4-6	20	80 ±30	

- NOTE: SLAB WATERPROOFING BY MEANS OF MEMBRANE OR CONCRETE ADMIXTURE HAS NOT BEEN SPECIFIED. THE USE OF A SPECIFIC WATERPROOFING SYSTEM OR ADMIXTURE SUCH AS XYPEX IS THE RESPONSIBILITY OF OTHERS AND SHALL BE DETERMINED BY THE CONTRACTOR / OWNER.
- IT IS RECOMMENDED TO USE SHRINKAGE COMPENSATING CONCRETE TO LIMIT SHRINKAGE BETWEEN THE RANGE OF 0.03% TO 0.04%. CONCRETE SUPPLIER TO PROVIDE SHRINKAGE TEST RESULTS PRIOR TO APPROVING MIX DESIGN.
 - CONCRETE DESIGN IS BASED ON COMPRESSIVE STRENGTH, PHYSICAL PROPERTIES (SLUMP, AGGREGATE SIZE, ETC.) TO SUIT INSTALLATION (BY OTHERS) NOT TO AFFECT STRENGTH SPECIFIED.
 - ALL CONCRETE SHALL BE TESTED BY A CSA CERTIFIED CONCRETE TESTING LABORATORY. CONTRACTOR TO PROVIDE COPIES OF TESTING REPORTS TO THE ENGINEER. NOT LESS THAN ONE TEST SHALL BE MADE FOR EACH 100m³ OF CONCRETE WITH AT LEAST ONE TEST FOR EACH CLASS OF CONCRETE USED. A MINIMUM OF THREE TESTS IS REQUIRED FOR EACH CLASS.
 - SLUMP OF CONCRETE TO BE 80mm +/- 30mm PRIOR TO SUPER PLASTICIZERS BEING ADDED.
 - ALL CONCRETE FORMS ARE TO BE WET THOROUGHLY PRIOR TO PLACING CONCRETE.
 - ALL CONCRETE SHALL BE KEPT WET/MOIST DURING THE FIRST SEVEN DAYS OF CURING.
 - DO NOT ADD WATER TO THE CONCRETE.
 - PROVIDE COLD WEATHER PROTECTION TO PREVENT SLAB ON GRADE FROM HEAVING.
 - AGGREGATES MUST MEET THE CSA A23.1 REQUIREMENTS. TO BE DETERMINED BY THE GENERAL CONTRACTOR AND SUPPLIER TO MEET PLACEMENT, AND FINISHING REQUIREMENTS WITHOUT SEGREGATION WHILE MEETING ALL OWNER SPECIFICATIONS.
 - ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
 - REINFORCING STEEL SHALL CONFORM TO CAN/CSA-G30.18. REINFORCING BARS SHALL BE DEFORMED, GRADE 400 MPa.
 - MAINTAIN THE FOLLOWING CONCRETE CLEAR COVER TO REINFORCING:
a) 75mm (3") FOR CONCRETE CAST AGAINST EARTH
b) 38mm (1 1/2") FOR CONCRETE CAST AGAINST FORMWORK
c) 64mm (2 1/2") FOR CONCRETE EXPOSED TO DE-ICING CHEMICALS
 - ALL REINFORCING STEEL, DOWELS AND ANCHOR BOLTS ARE TO BE CLEAN AND FREE OF RUST, DIRT, FORM RELEASE AGENT, ETC. PRIOR TO POURING CONCRETE.
 - LAP REINFORCING STEEL MINIMUM AS PER CSA A23.3. LAP ALL HORIZONTAL BARS AT CORNERS WITH BENT DOWELS MEETING THE MINIMUM LAP REQUIREMENTS IN BOTH DIRECTIONS. SHOP FABRICATE ALL REINFORCING STEEL TO INCLUDE HOOKS AND BENDS.
 - REINFORCING STEEL DOWELS AND ANCHOR BOLTS ARE TO BE SECURELY TIED PRIOR TO PLACING CONCRETE. REINFORCING STEEL CHAIRS AND SUPPORTS SHALL BE MADE OF CONCRETE BLOCKS, PLASTIC OR WIRE.
 - DOWELS SHALL MATCH REINFORCING STEEL UNLESS NOTED OTHERWISE.

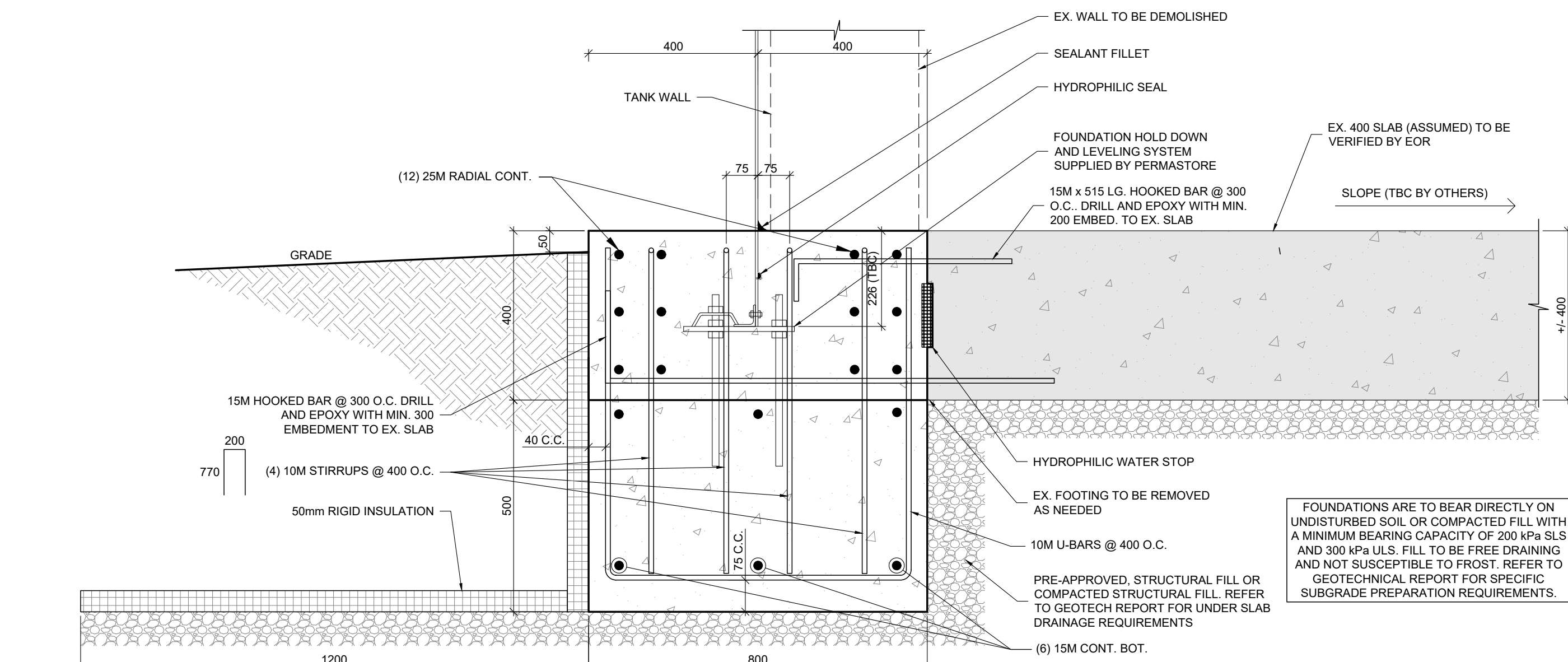
* PRELIMINARY *
* NOT FOR CONSTRUCTION *
* SUBMIT DRAWING TO REVIEW TO ENSURE COMPLIANCE WITH GEOTECHNICAL REPORT *
* DESIGN BASED ON AWWA D103-19 SEISMIC AND NBC WIND LOADS *



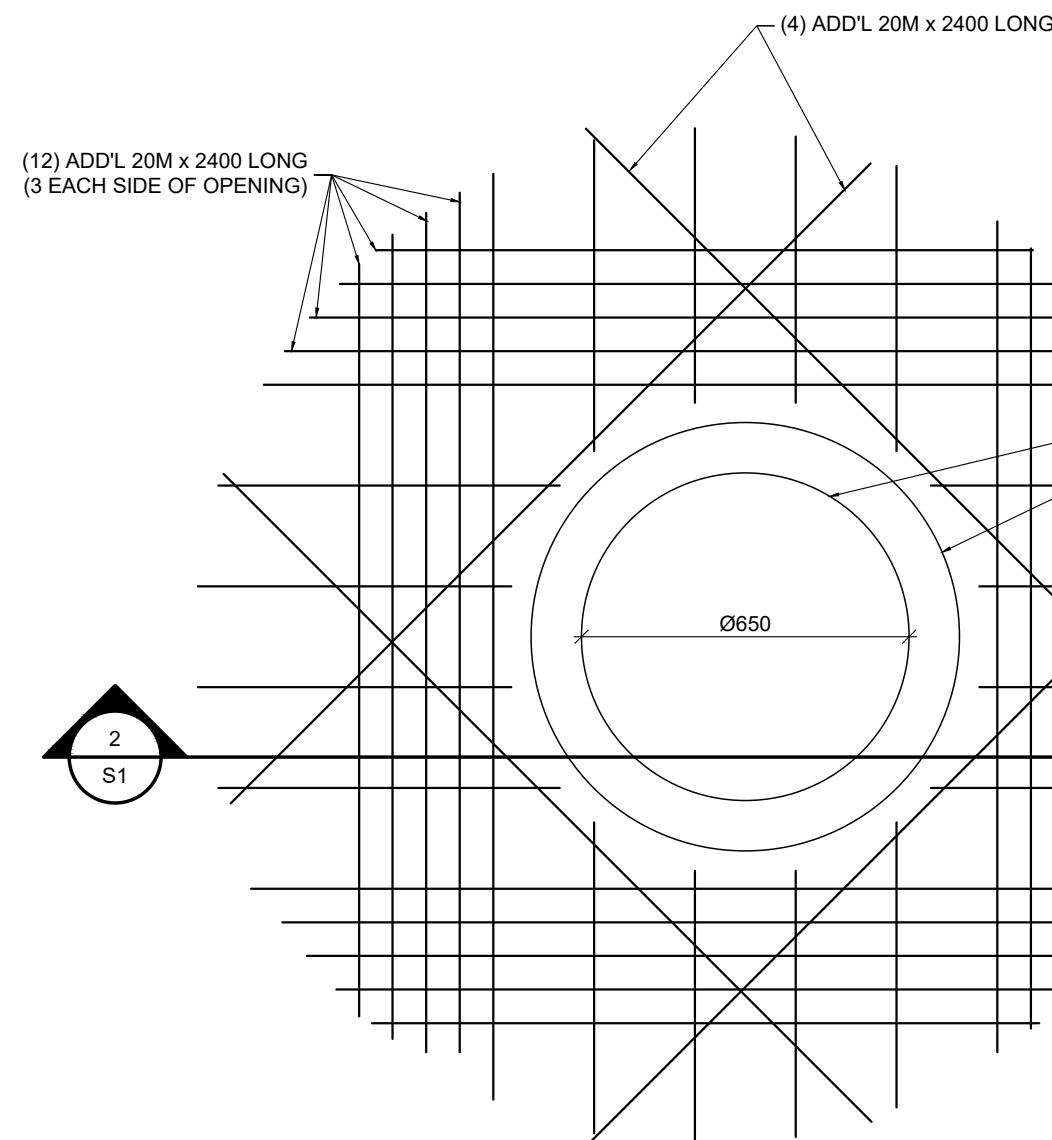
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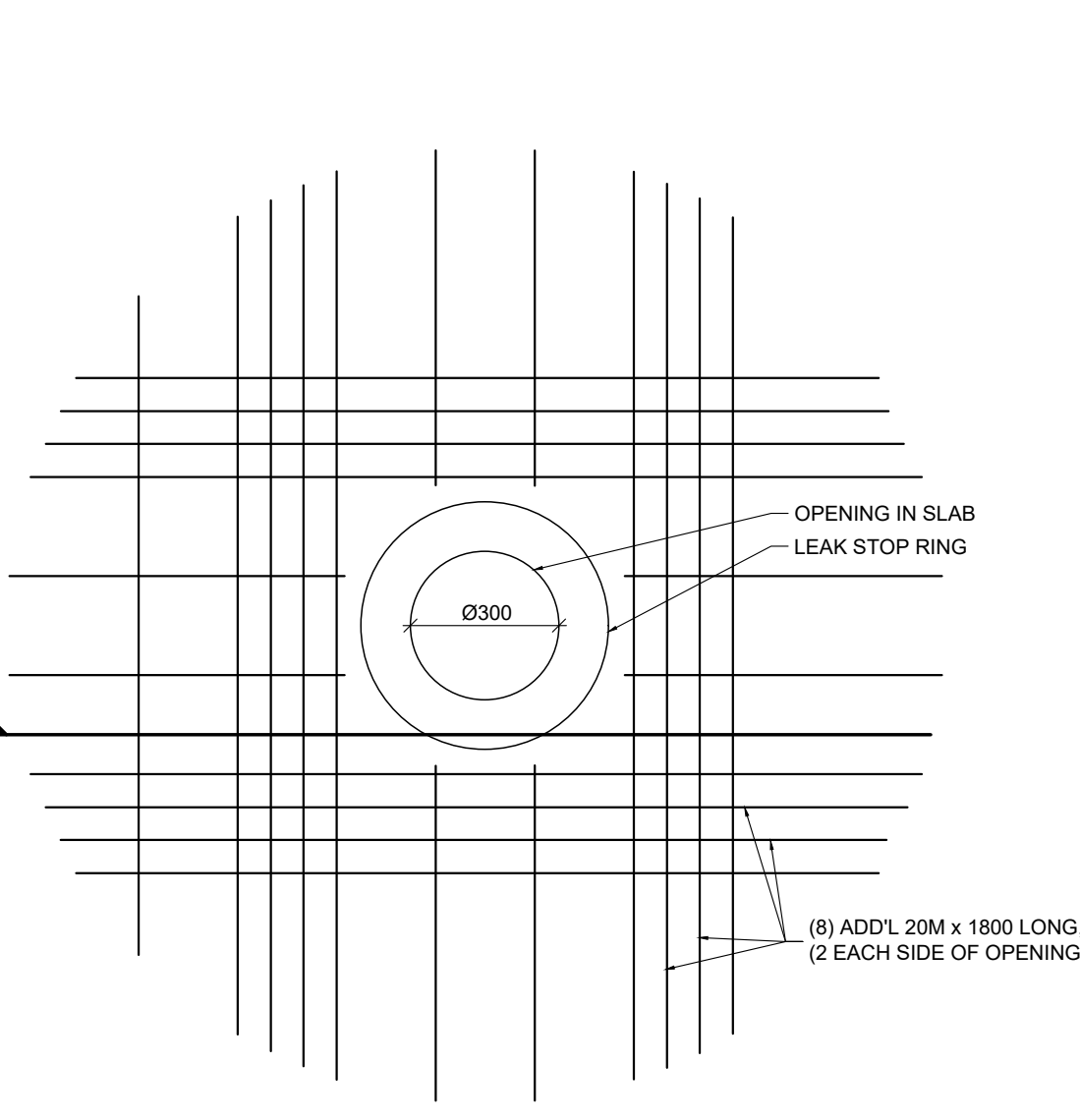
FOUNDATION PLAN
MAX TANK HEIGHT = 12.3m
1:100



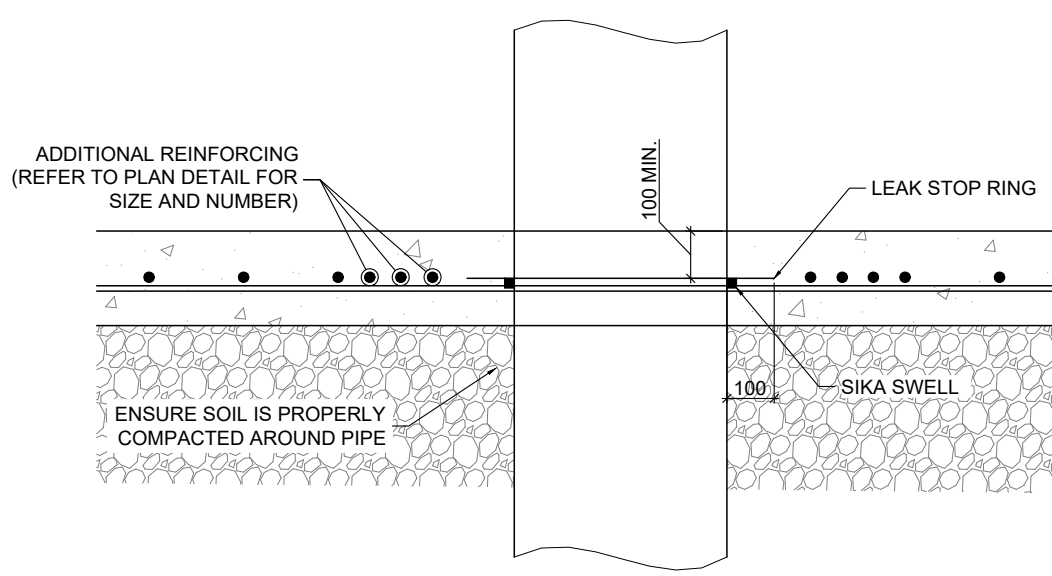
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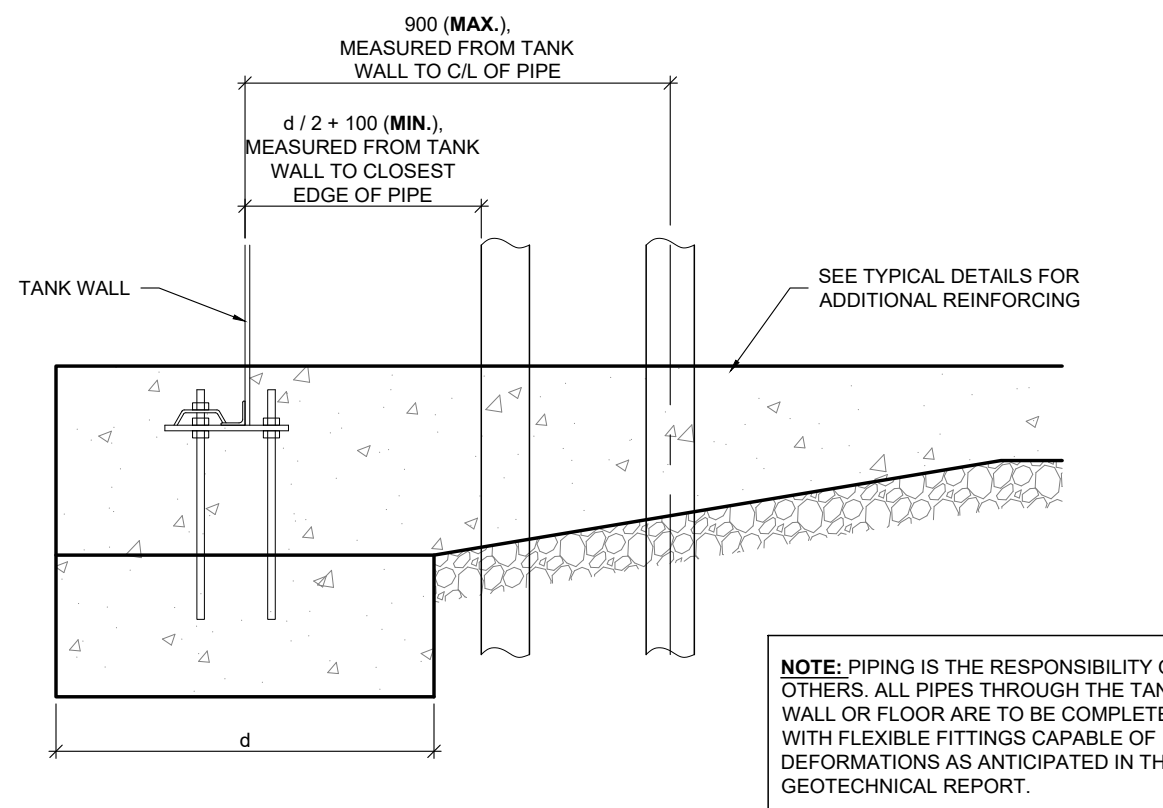
TYPICAL PIPE PENETRATION
MAX PIPE DIAMETER OF 650mm
MAXIMUM FOUR ADJACENT REBARS CUT
1:15



TYPICAL PIPE PENETRATION
MAX PIPE DIAMETER OF 300mm
MAXIMUM TWO ADJACENT REBARS CUT
1:15



PIPE PENETRATION SECTION
1:15



PIPE PENETRATION ALLOWABLE DISTANCES
1:15

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a) SEE CHART FOR CONCRETE TYPES

CONCRETE PROPERTIES		CSA CLASS	28 DAY COMP STRENGTH MPa	MAX. W/C RATIO	AIR CONTENT %	MAX. AGGREGATE mm	SLUMP mm
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WitzelDyce
ENGINEERING INC.
826 King Street North, Unit 20
Waterloo, Ontario, N2J 4G6
www.witzeldyce.com

INGLESIDE WWTP TANK FOUNDATION

14754 COUNTY ROAD 2 INGLESIDE, ON

FOUNDATION PLAN, SECTIONS & CONSTRUCTION NOTES (24.76m Ø)

DESIGNER	HXB / DAW	PROJECT NO.	BDH2F
DRAWN	NAW	DRAWING NO.	
DATE	APRIL 2025		
SCALE	AS NOTED		

S2.0