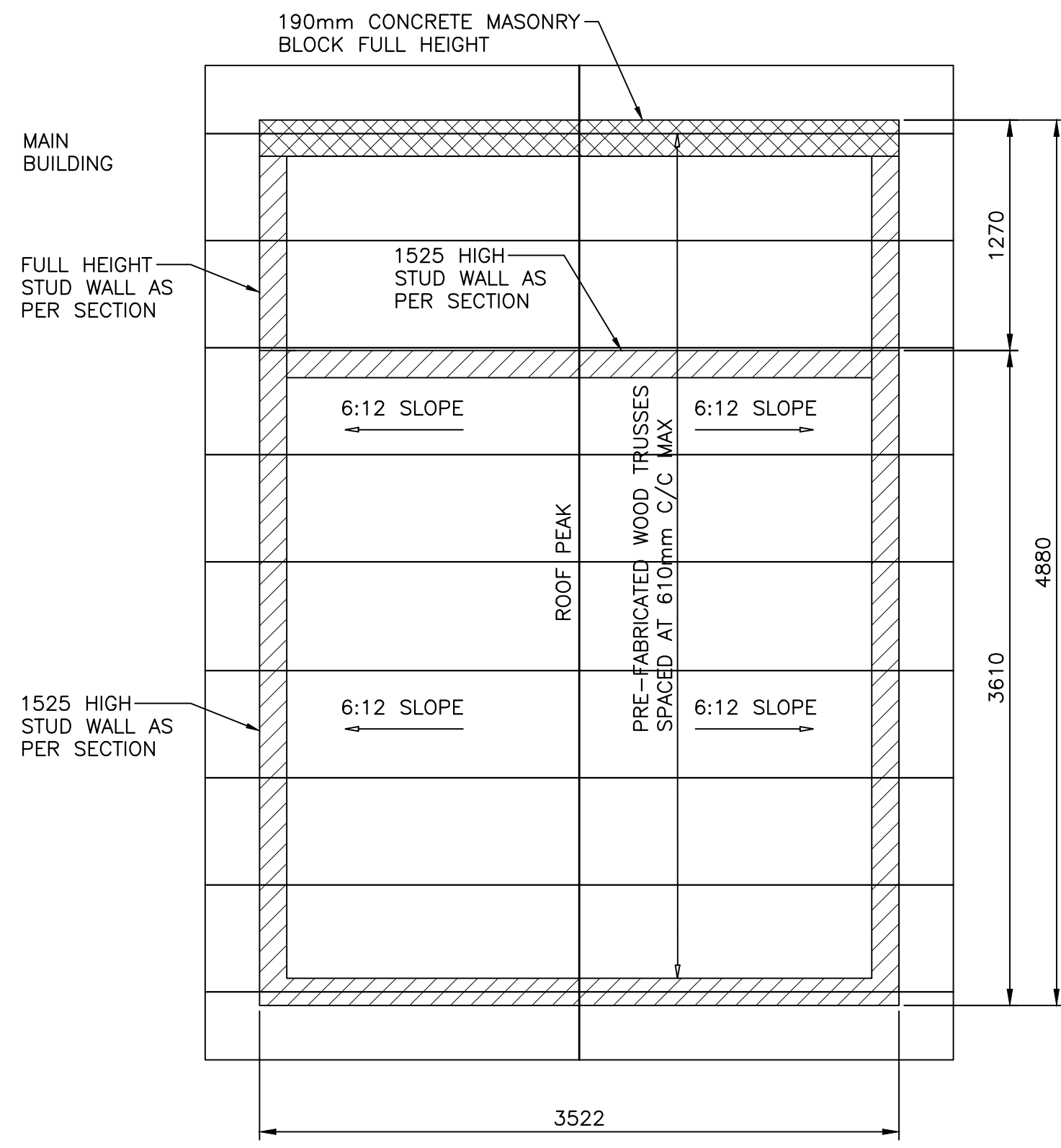


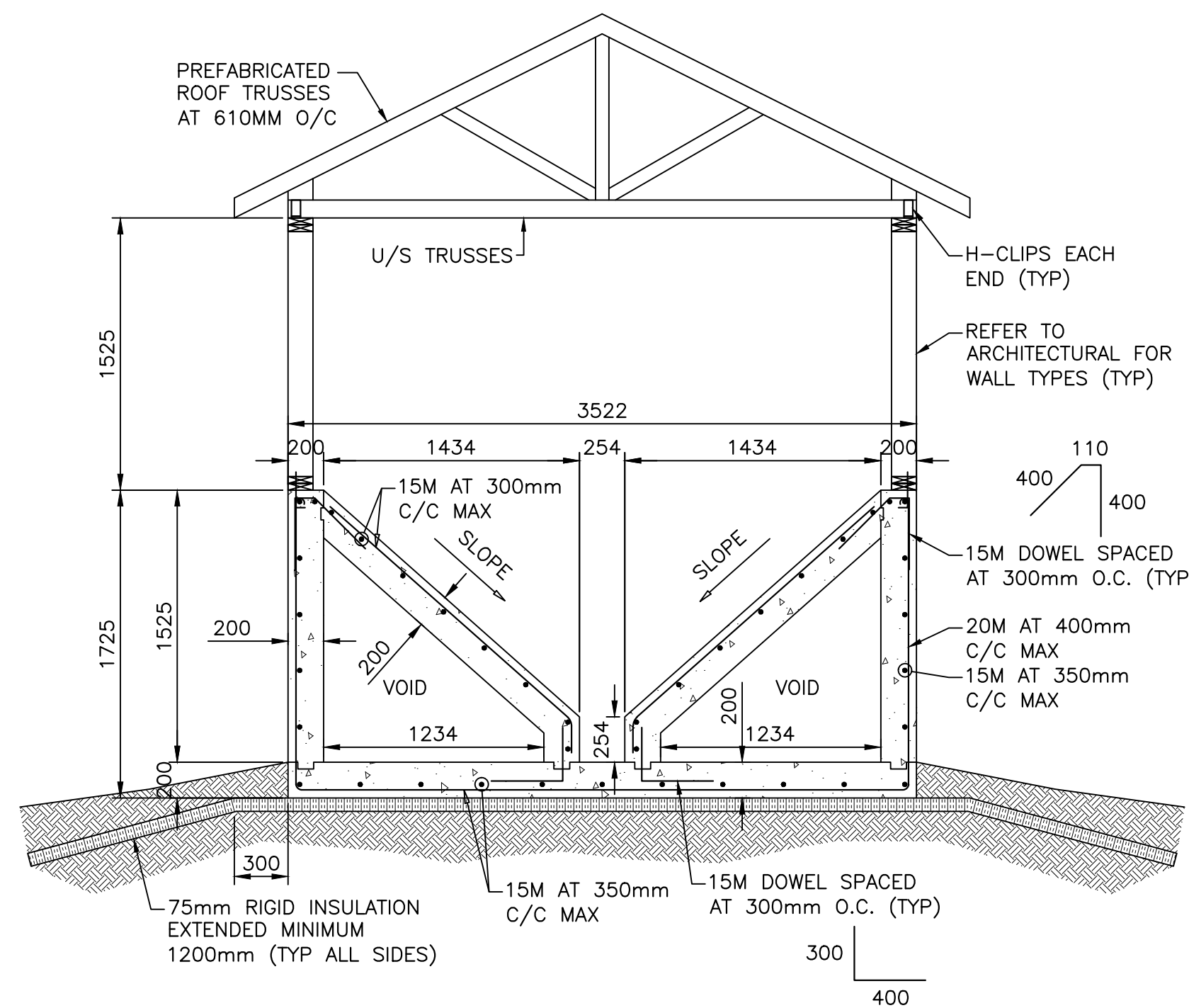
PLAN: FOUNDATION & GROUND FLOOR

SCALE : 1:30
0mm 500mm 1000mm 1500mm 2000mm 2500mm 3000mm



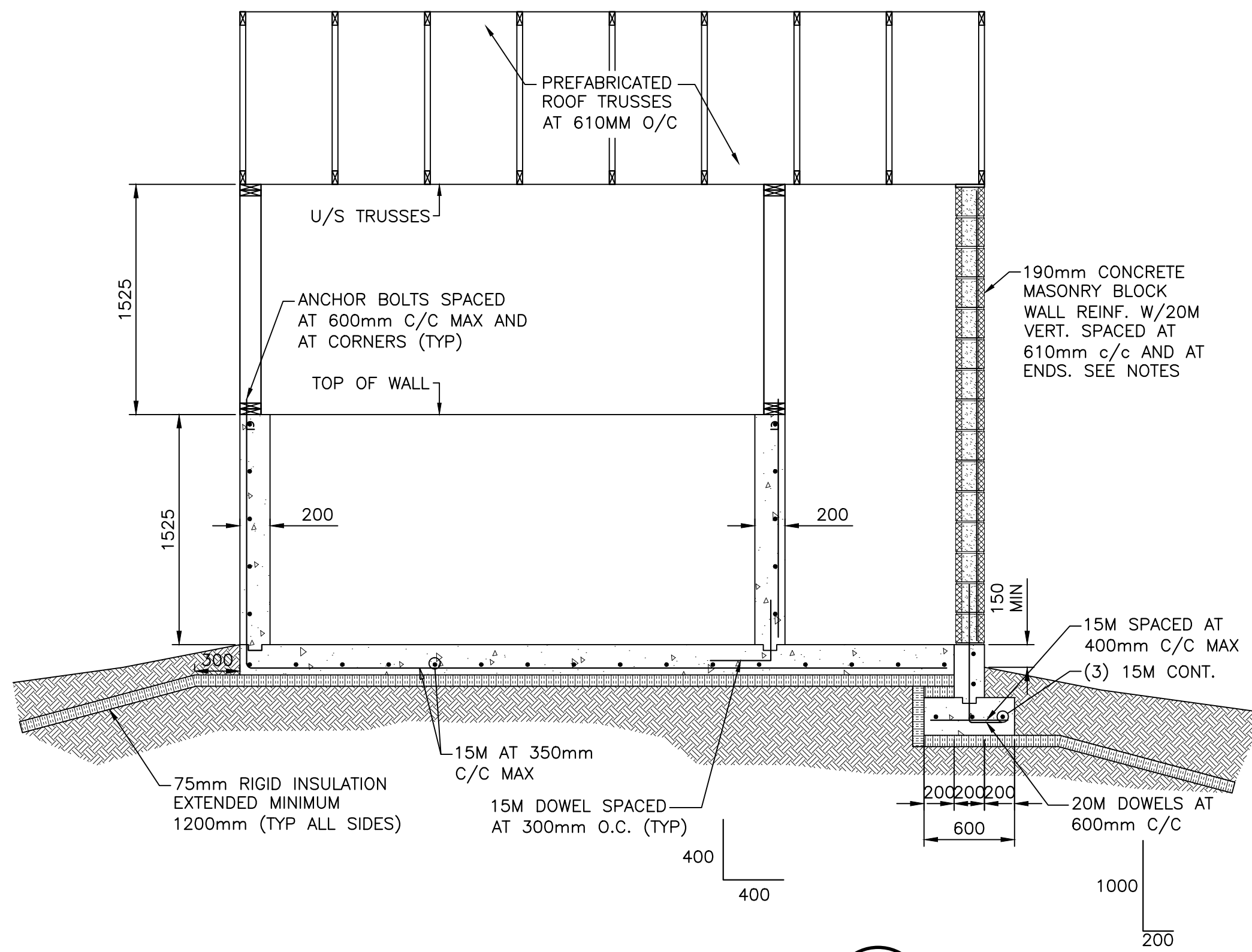
PLAN: ROOF

SCALE : 1:30
0mm 500mm 1000mm 1500mm 2000mm 2500mm 3000mm



SECTION: FOUNDATION

SCALE : 1:30
0mm 500mm 1000mm 1500mm 2000mm 2500mm 3000mm



SECTION: FOUNDATION

SCALE : 1:30
0mm 500mm 1000mm 1500mm 2000mm 2500mm 3000mm

GENERAL

- THE WORK SHALL BE IN ACCORDANCE WITH NATIONAL BUILDING CODE OF CANADA (NBCC), LATEST REVISION, TO THE SATISFACTION OF THE ENGINEER UNLESS NOTES OTHERWISE ON THE DRAWINGS.
- COMPLY WITH ALL LOCAL, MUNICIPAL, AND PROVINCIAL BY-LAWS AND REGULATIONS.
- CONTRACTOR SHALL COORDINATE WORK AND COOPERATE WITH OWNER AND AGENCIES HAVING JURISDICTION.
- REPORT ANY DOUBTFUL CONDITIONS REQUIRING DECISIONS AND SECURE DIRECTIONS FROM THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- PROPERLY DISPOSE AND REMOVE OFFSITE ALL DEBRIS AND MATERIALS TO BE REMOVED.

CONCRETE

- ALL CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA A23.1 AND NBCC.
- ALL CONCRETE MATERIAL SHALL CONFORM TO:
 - CEMENT: CAN/CSA-A5-TYPE 10
 - AGGREGATES: CSA A23.1
 - AIR ENTRAINMENT: CSA CAN3-A266.1
 - CHEMICAL ADMIXTURES: CSA CAN3-266.2
 - DESIGN MIX: CSA A23.1
- MIX DESIGN: TYPE 10 PORTLAND CEMENT.
- FOOTINGS AND FOUNDATION WALLS:
 - COMPRESSIVE STRENGTH (28D): 25MPa (3600psi)
 - CLASS OF EXPOSURE: F-2
 - NOMINAL AGGREGATE SIZE: 20mm (3/4")
 - SLUMP: 80mm (3-1/4") ±20mm (3/4")
 - AIR CONTENT: 4-7%
 - WATER CEMENT RATIO: 0.5 MAX
- INTERIOR SLABS:
 - COMPRESSIVE STRENGTH (28D): 25MPa (3600psi)
 - CLASS OF EXPOSURE: N
 - NOMINAL AGGREGATE SIZE: 20mm (3/4")
 - SLUMP: 80mm (3-1/4") ±20mm (3/4")
 - AIR CONTENT: NONE
 - WATER CEMENT RATIO: 0.45 MAX
- CONCRETE MIX DESIGN SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER MINIMUM 48 HRS PRIOR TO CASTING.
- USE OF CALCIUM CHLORIDE IS NOT PERMITTED.
- ALL CONCRETE SHALL BE TESTED, TESTING SHALL CONFORM TO CSA A23.2, RECORD TESTS FOR SLUMP, AIR CONTENT AND COMPRESSIVE STRENGTH.
- ALL CONCRETE SHALL BE VIBRATED USING HIGH FREQUENCY VIBRATORS. VIBRATION PRACTICES TO BE IN ACCORDANCE WITH ACI 309R.
- APPLY CURING COMPOUND OR WET CURE SLAB IMMEDIATELY AFTER COMPLETION OF SLAB FINISHING. CONCRETE CURING AND PROTECTION SHALL CONFORM TO CSA A23.1.
- COLD WEATHER CONCRETE SHALL BE PLACED AND PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1 AND TO THE REQUIREMENTS OF ACI-306R. PROVIDE HEATED ENCLOSURES AND/OR INSULATED TARPS AS REQUIRED TO MAINTAIN MINIMUM 10°C CONCRETE SURFACE TEMPERATURE FOR A PERIOD OF 5 DAYS FOLLOWING CONCRETE PLACEMENT. PROVIDE CONTROLLED COOL DOWN PERIOD TO PREVENT SURFACE CRACKING AT END OF PROTECTION PERIOD. ENSURE THAT NO CONCRETE IS PLACED ON OR AGAINST FROZEN SUBGRADE, FORMWORK, OR REINFORCING STEEL.
- LEAVE FORMWORK IN PLACE FOR THE FOLLOWING MINIMUM PERIODS OF TIME AFTER PLACING CONCRETE:
 - 72 HR. FOR WALLS
 - 72 HR. FOR FOOTINGS
- APPLY CURING COMPOUND TO WALLS AND PLASTERS IF EXPOSED TO DRYING CONDITIONS PRIOR TO COMPLETION OF FULL 7 DAY MOIST CURING PERIOD. USE LIQUID MEMBRANE CONCRETE CURING COMPOUND.

ROUGH CARPENTRY & WOOD TRUSS NOTES:

- ALL WOOD STRUCTURAL MEMBERS, ASSEMBLIES AND FASTENERS SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD 086.1 (LATEST EDITION).
- ALL LUMBER SHALL BE IDENTIFIED BY THE GRADE MARK IN ACCORDANCE WITH THE MARKING PROVISIONS OF CSA STANDARD 0141.
- ALL LUMBER SHALL BE STRUCTURAL GRADE DRY, SPF NO. 2 MINIMUM, MOISTURE CONTENT NOT GREATER THAN 19% AT INSTALLATION.
- ALL PLYWOOD SHALL BE EXTERIOR GRADE DOUGLAS FIR PLYWOOD TO CSA 0121 AND MANUFACTURED WITH WATERPROOF GLUE.
- UNLESS NOTED OTHERWISE PROVIDE FULL WIDTH 38mm (1-1/2") THICK WOOD NAILER PLATE ON FLANGES OF STEEL BEAMS AS REQUIRED. SECURE WITH 12mm (1/2") DIA. BOLTS AT 610mm (24") ON CENTER STAGGERED.
- ALL FASTENERS AND METAL IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR APPROVED EQUAL.
- ALL BEARING SHALL BE CONTINUOUS TO FOUNDATION UNLESS NOTED OTHERWISE.
- SHEATHING SHALL BE FASTENED AT 150mm (6") ON CENTER AT EDGES AND END SUPPORTS AND AT 300mm (12") CENTERS AT INTERMEDIATE SUPPORTS.
- REQUIRED TRUSS/JOIST ANCHORS, CLIPS, HANGERS, ETC. SHALL BE DESIGNED AND SUPPLIED BY TRUSS/JOIST MANUFACTURER TO ACCOMMODATE ALL LOADS, INCLUDING UPLIFT.
- VENTILATE AND FIRE STOP ALL SPACES TO NBCC REQUIREMENTS.
- ALL TRUSSES SHALL BE DESIGNED FOR SNOW AND WIND LOAD AS PER NBCC AND INCREASED LOADS FOR SNOW DRIFT AT HIGHER OBSTRUCTIONS.
- DESIGN TO SUPPORT THE LOADS INDICATED WITH A MAXIMUM SPAN DEFLECTION, UNDER LIVE LOAD, OF 1/240 FOR ROOF AND 1/480 FOR FLOOR. TRUSS MANUFACTURER TO SIZE AND PROVIDE REQUIRED LVL BEAMS. INCORPORATE PIGGYBACK TRUSSES AS REQUIRED.
- DESIGN TEMPORARY ROOF AND WALL BRACINGS TO SUPPORT LOADS.
- PROVIDE HORIZONTAL BRIDGING AS REQUIRED BY TRUSS DESIGN. REFER TO TRUSS SUPPLIERS SHOP DRAWINGS (U.N.O.).
- MANUFACTURED WOOD TRUSS SYSTEM TO BE DESIGNED BY MANUFACTURER AND SEALED BY AN ENGINEER LICENSED TO PRACTICE IN PEI.
- PROVIDE GABLE END TRUSSES AS REQUIRED ALL LOCATIONS. PROVIDE TYPICAL TRUSS AND GABLE END TRUSSES WHERE STEEL BEAM IS NOT DETAILLED AT GABLE END.
- PROVIDE 38mm x 89mm STRAPPING AT 1800mm c/c ON TOP AND ACROSS BOTTOM CHORD OF WOOD TRUSSES.
- COORDINATE TRUSS DESIGN AND CONFIGURATION WITH ROOF MOUNTED MECHANICAL EQUIPMENT AND MECHANICAL DUCTING AND ADJUST TRUSS WEBBING AS REQUIRED TO SUIT.

LEGEND	
----	FOOTING OUTLINE
—	ROOF TRUSS
—	CAST IN PLACE CONCRETE
XXXX	CONCRETE MASONRY BLOCK
XXXX	WOOD STUD WALL

SLAB ON GRADE

- MINIMUM SLAB-ON-GRADE REINFORCING OF 10M AT 400mm (16") O/C EACH WAY AT MIDDLE OF SLAB UNLESS NOTED OTHERWISE ON DRAWINGS. CHAIR REINFORCING.
- PROVIDE 12mm (1/2") PREMOULDED JOINT FILLER WITH CHALKING AT ALL CONCRETE AND MASONRY THAT EXTEND BELOW TOP OF SLAB UNLESS NOTED OTHERWISE.
- PROVIDE VAPOUR RETARDER UNDER ALL INTERIOR SLAB ON GRADES UNLESS NOTED OTHERWISE.
- INTERIOR CONCRETE FLOOR SLAB TO HAVE A SMOOTH STEEL TROWELLED FINISH (TO A FLAT TOLERANCE CLASSIFICATION 5mm (3/16") IN 3m (9'-0")) AS PER ENGINEERS REQUIREMENT.
- WET CURE SLAB-ON-GRADE FOR A MINIMUM 7 DAYS AFTER PLACEMENT OF APPLY CURING COMPOUND IMMEDIATELY AFTER COMPLETION OF SLAB FINISHING. USE MASTERCURE OR BY MASTER BUILDERS, STERNSON FLORESA OR EQUIVALENT LIQUID MEMBRANE CONCRETE CURING COMPOUND.
- PROVIDE CONTROL JOINTS WITH JOINT FILLER. STANDARD OF ACCEPTANCE: MASTERFILL 300I, OR APPROVED EQUAL. INSTALL TO MANUFACTURERS INSTRUCTIONS.
- PROVIDE WEATHER PROTECTION TO CONCRETE SLAB AND ALL CONCRETE WORK IN CONFORMANCE WITH REQUIREMENTS OF A23.1

MASONRY NOTES:

- PLAIN AND REINFORCED MASONRY SHALL CONFORM TO CSA S304.1, "DESIGN OF MASONRY STRUCTURES."
- ALL MASONRY SHALL CONFORM TO CAN3-A165 SERIES, - MORTAR & GROUT TO CAN/CSA A179.
- MINIMUM STRENGTH REQUIREMENTS FOR HOLLOW BLOCKS:
 - BLOCKS (8") 200mm & OVER NOMINAL WIDTH 7.5 MPa (GROSS AREA) & 15.0 MPa (NET AREA).
 - BLOCKS LESS THAN (8") 200mm NOMINAL WIDTH 5 MPa (GROSS AREA) GROUT 15 MPa.
- METAL TIES & WIRE REINFORCEMENT TO CAN3-S304.
- PROVIDE TEMPORARY SUPPORT TO BLOCK WALLS BEFORE LATERAL SUPPORT ELEMENTS ARE COMPLETED.
- VERTICAL REINFORCING & GROUTING SCHEDULE:
 - (2)-20M BARS AT ALL CORNERS, OPENINGS AND WALL END CONDITIONS.
 - 20M BARS AT (24") 600mm CENTERS ALL MASONRY WALLS.
 - VERTICAL REINFORCING SHALL BE CONTINUOUS FROM FOUNDATION TO TOP OF WALL. MINIMUM LAP FOR VERTICAL REINFORCING TO BE (2'-0") 600mm, MINIMUM EMBEDMENT INTO FOUNDATION (24") 600mm.
 - VERTICAL REINFORCING SHALL BE PLACED IN THE CENTER OF THE WALL BARS SHALL BE PLACED BEFORE GROUTING & HELD IN PLACE WITH #8 GAUGE WIRE CAGES. ALL GROUTING AS PER CSA STANDARD A371
- HORIZONTAL REINFORCING IN MASONRY WALLS:
 - USE TRUSS TYPE REINFORCEMENT TO ASTM A82, CSA G30.3 & CAN A370 SIZED TO SUIT WALL THICKNESS.
 - FINISH, HOT-DIPPED GALVANIZED TO ASTM A153 CLASS B2, 457 g/m².
 - REINFORCEMENT WITH (2) TWO 4.76mm (0.144") SIDE RODS AND 4.76mm (0.144") GROSS RODS. INSTALL TRUSS TYPE REINFORCEMENT AT VERTICAL INTERVALS OF 400mm (16") ON CENTRE.
- BOND BEAMS:
 - PROVIDE & REINFORCE BOND BEAMS AT ALL OPENINGS, ROOF LEVELS AND TOP OF WALLS BOND BEAM (8") 200mm DEEP WITH (2)-15M (U.N.O.).
 - OPENINGS SPANNING UP TO (6'-0") 1800mm WIDE (8") 200mm DEEP WITH (2)-15M BOTTOM UNLESS NOTED OTHERWISE.
 - LINTELS TO EXTEND MINIMUM ONE FULL CORE BEYOND OPENING EACH SIDE.

REINFORCING STEEL

- ALL REINFORCING STEEL SHALL BE NEW BILLET, GRADE 400, DEFORMED BARS TO CAN/CSA-G30.19, WMM REINFORCING TO CSA G30.5
- REINFORCING STEEL SHALL BE DETAILED, CUT, BENT, FABRICATED AND PLACED IN ACCORDANCE WITH REINFORCING MANUAL OF STANDARD PRACTICE (REINFORCING STEEL INSTITUTE OF CANADA); CAN3-A23.3 AND CSA-A23.1.
- THE GENERAL CONTRACTOR SHALL INSPECT ALL THE REINFORCING STEEL BEFORE PLACEMENT OF THE CONCRETE.
- SHOP DRAWINGS: SUBMIT SHOP DRAWINGS STAMPED BY AN ENGINEER LICENSED TO PRACTICE IN NFLD FOR REVIEW PRIOR TO FABRICATING REINFORCING STEEL. CLEARLY INDICATE BAR SIZES, SPACING, LOCATION, QUANTITY, CHAIRS, SPACERS, ETC WITH IDENTIFYING CODE MARKS TO PERM PLACEMENT.
- REINFORCING BAR SPLICES (UNLESS NOTED OTHERWISE):
10M - 450mm; 15M - 650mm; 20M - 800mm; 25M - 1250mm
- CONCRETE COVER (UNLESS NOTED OTHERWISE):
 - POURED AGAINST THE GROUND 75mm (3")
 - FORMED SURFACE AGAINST GROUND 50mm (2")
 - FORMED SURFACE EXPOSED TO WEATHER 50mm (2")
 - FORMED SURFACE PROTECTED: 25mm (1")
- USE SPACERS, CHAIRS, TEMPLATES AND DIRECT SUPERVISION OF THE REINFORCING STEEL CONTRACTOR TO ACCURATELY LOCATE & SUPPORT REINFORCING STEEL & SECURE IN POSITION TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.

1	ISSUED FOR TENDER	06/18 2020
revisions		date
project	DFO ST. LEWIS BUILDING UPGRADES	project

STRUCTURAL FOUNDATION PLAN, DETAILS & NOTES

designed SPM, EIT	conçu
date JUNE 2020	
drawn SPM, EIT	dessiné
date JUNE 2020	
approved NL, P.Eng	approuvé
date JUNE 2020	
Tender D.S., PMP	Soumission
PWGSC Project Manager	Administrateur de projets TPSGC
project number	no. du projet
R.108233.001	
drawing no.	no. du dessin
S1 OF 1	