Finn Church Aid

Food Security, Livelihoods and Education in Emergencies Support for Returnees, Internally Displaced People (IDP) and Host Communities in Jonglei and Central Equatoria State, South Sudan (FCA DF 12208)

PROPOSED LEARNING SPACE SPECIFICATIONS (TWO CLASSROOM'S BLOCK) FOR PRIMARY SCHOOL

Title of Project:	Food Security, Livelihoods and **Education in Emergencies** Support for Returnees, Internally Displaced People (IDP) and Host Communities in Jonglei and Central Equatoria State, South Sudan
Project Outcome:	Increased access to equitable, safe & inclusive quality education for children aged 6-18 years
Location :	**Yei River County (Yei River Payam)** - St. Mark Primary School - Yei Demonstration Primary School - St. Cecilia Primary School
Application Deadline :	08 December 2021
Type of Contract :	Construction of Semi-Permanent Learning Spaces and Latrines
Languages Required :	English Language
Starting Date :	14 January 2022
Expected Duration of Assignment :	3 Months

SITE PREPARATION

- Building Site to be graded flat with 5% slope away from structure, extending a minimum of 2.5M from perimeter
- Drainage necessary away from structure, which may require substantial fill material

CONCRETE

- River sand may be used only after thorough washing to remove fines (silt and clay)
- All aggregate to be clean and free of organic material
- Water to be clear - use flocculent on river water or any water with suspended particles

FOUNDATIONS **COLUMN EXCAVATION**

- 400mm x 400mm x 900mm mass concrete pad foundation under each foundation steel column
- Concrete to be 1:2:4 cement:sand:aggregate , for the footing concrete
- All aggregate to be <50mm

FOUNDATION COLUMNS FOOTINGS

- 400mm x 400mm x 600mm, for foundation column
- Concrete to be 1:2:4 cement:sand: aggregate ,for foundation column
- (4) 12mm reinforcing bars in foundation column
- 8mm links at 125mm on center per column
- All aggregate to be <50mm

SLAB

- 75mm thick reinforced concrete floor slab 1:2:4 concrete and for location without marram use to compact normal soil and sand compacted before slab to reduce the compression and expansion.
- Floor slab to be with floor screed monolithically to achieve uniform bond.
- Excavate slab area flat. Place fine grade and compact 30mm layer of sand.
- Concrete slab to be caste on 200mm compacted gravel and sand
- Control joints to be located between all rooms. Joint can be insert or saw cut, 10mm minimum depth

WALL COLUMNS:

- 100mm x 100mm x 3mm thick steel hollow wall section reinforced with
- Concrete to be 1:2:4 cement:sand:aggregate, for wall column Build half wall with brick walls,

WALLS:

- NOTE: for locations without clay burnt bricks, use of local materials like Bamboos, Timbers boards, and iron sheets can beused for the walls
- 400mm high from foundation use brick work to prevent flooding,
- 1800mm Bamboo walling on front and rear face of the building
- 2800mm high from the foundation and finished with iron sheets

DOORS

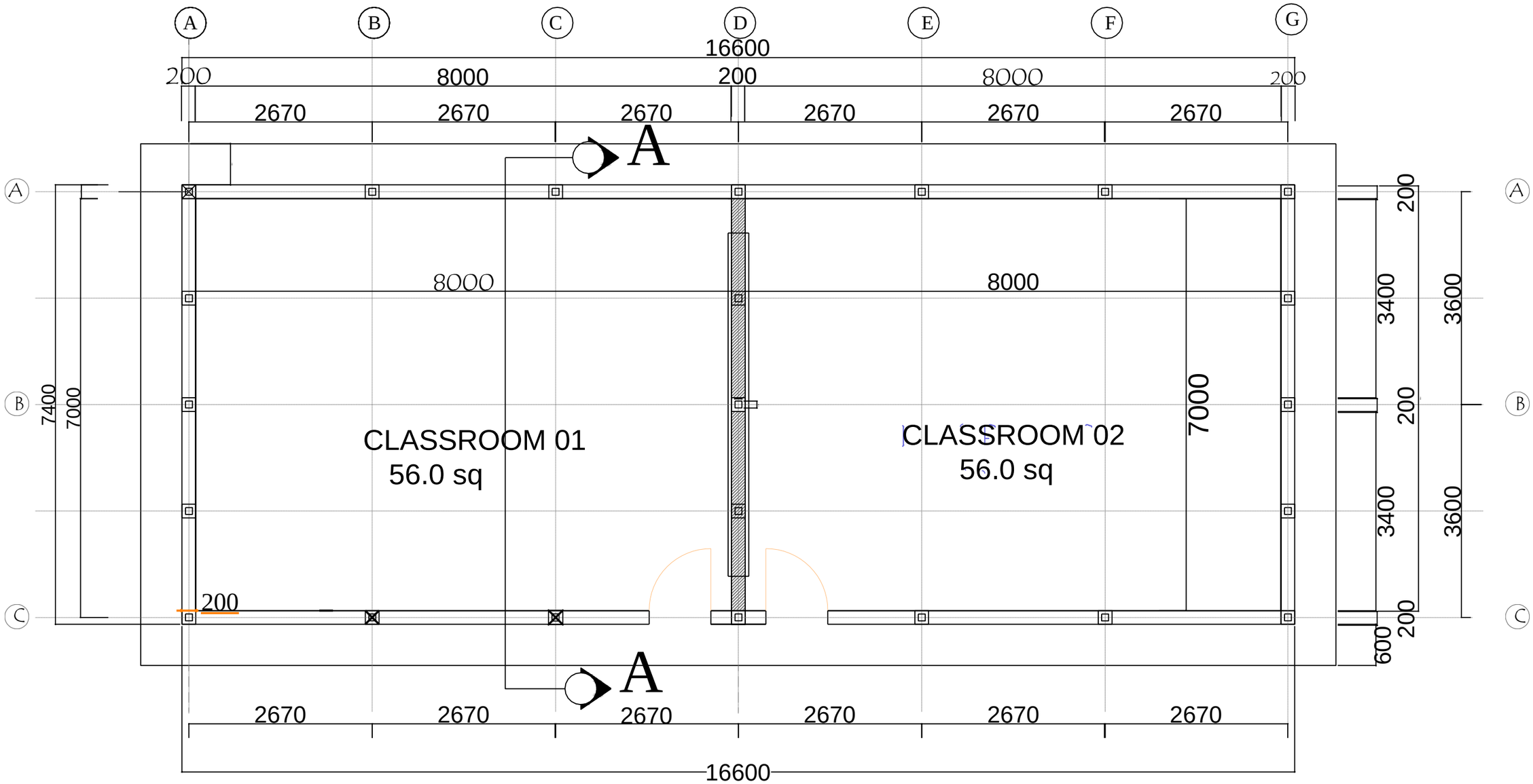
- All doors are made of Iron

sheetsROOF Metallic

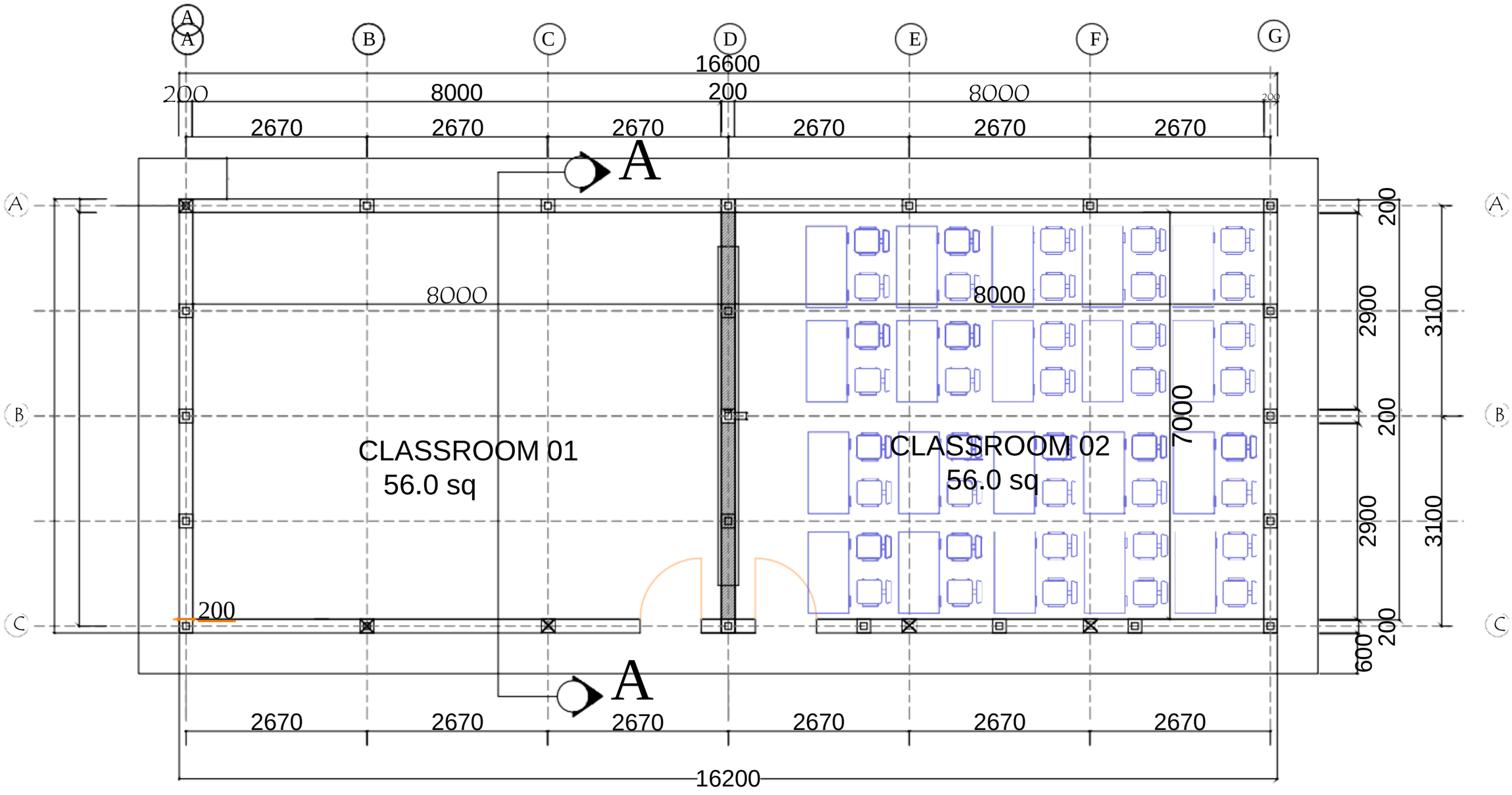
- Use corrugated 28gauge colored roof sheet 28gauge
- All 60mm x 40mmx 2mm rafters, 60mm x40mm Tie Beam, 40mm x 40mm x 1.5mmstruts and 40mm x 40mm x 2mm square steel purlins. All members to painted with three coats of anti-rust paint or equivalent
- Purlins to be weld to rafter and to supporting cleat to provide adequate weld areaand connection
- All steel members to be free of rust and all Nodes to connected with gusset plate ofminimum 6mm thickness as indicated on drawings
- Rafters structure members to all be welded with adequate weld fillet of at least 6mm
- Roof structure /tie beam to be welded to 60mm x 40mm square tube.
- Roof sheets profile to be corrugated colored, 28 gauge
- All sheets to overlap

200mmFLOOR

- Concrete floor to be 75mm 1:2:4 cement:sand: aggregate
- Floor screed monolithically to achieve uniform bond.
- Compact marram, or place hardcore or compact natural soil mixed with sand to attain maximum compacted base layer. All Floor style may vary according to the location.

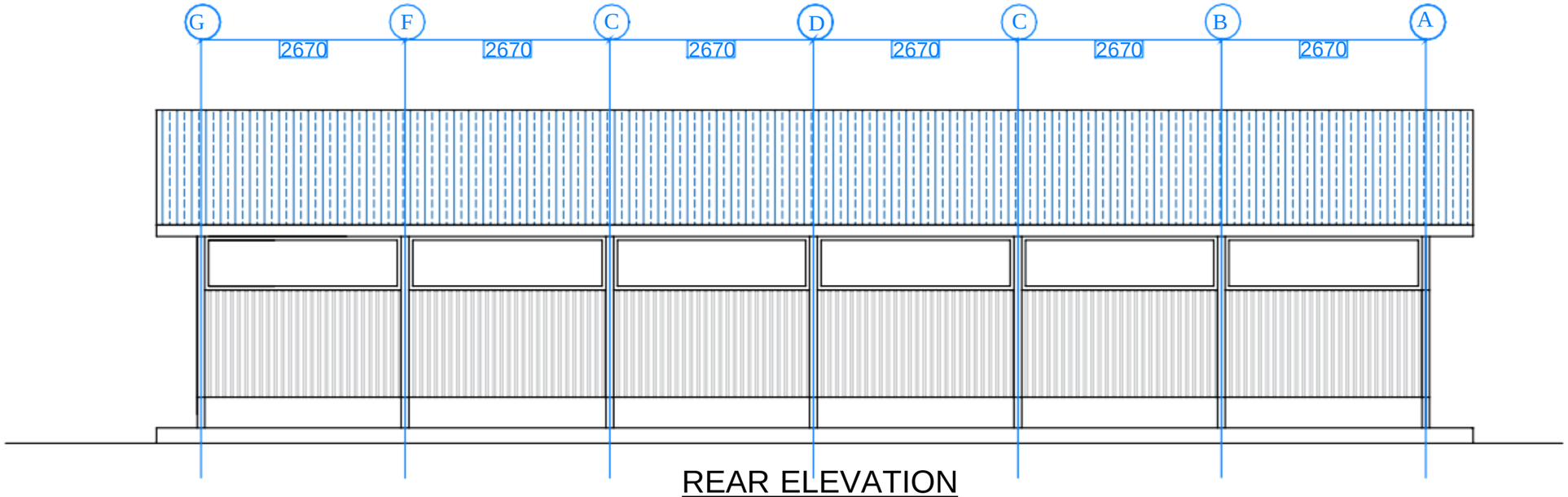


STRUCTURAL FLOOR PLAN



ARCHITECTURAL FLOOR PLAN

Scale: 1:100



REAR ELEVATION

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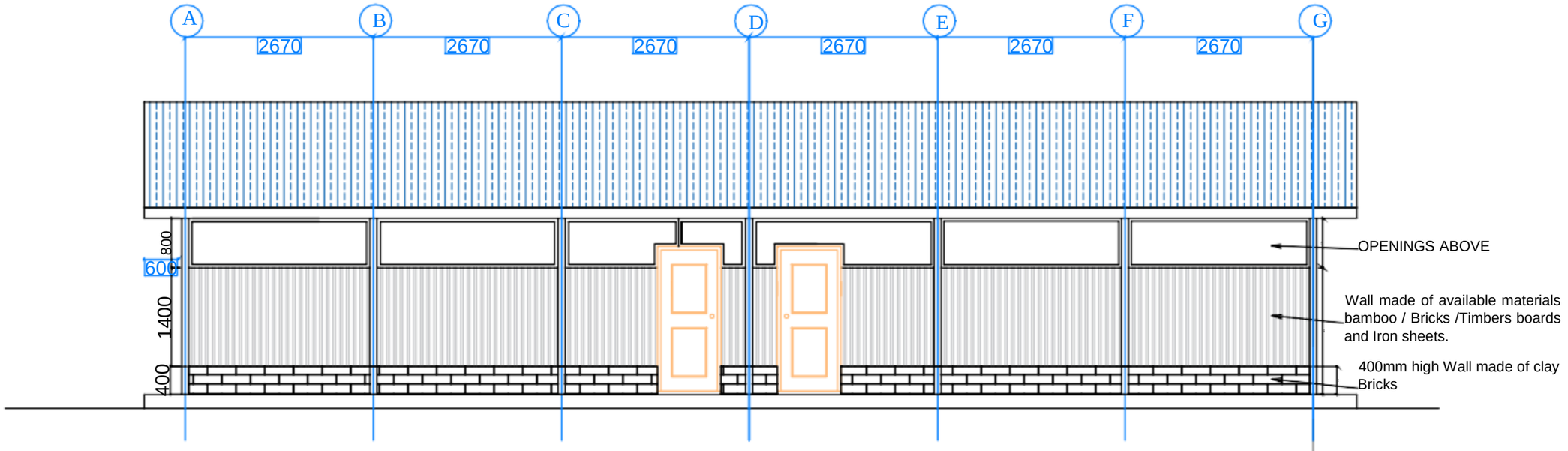

FRONT ELEVATION

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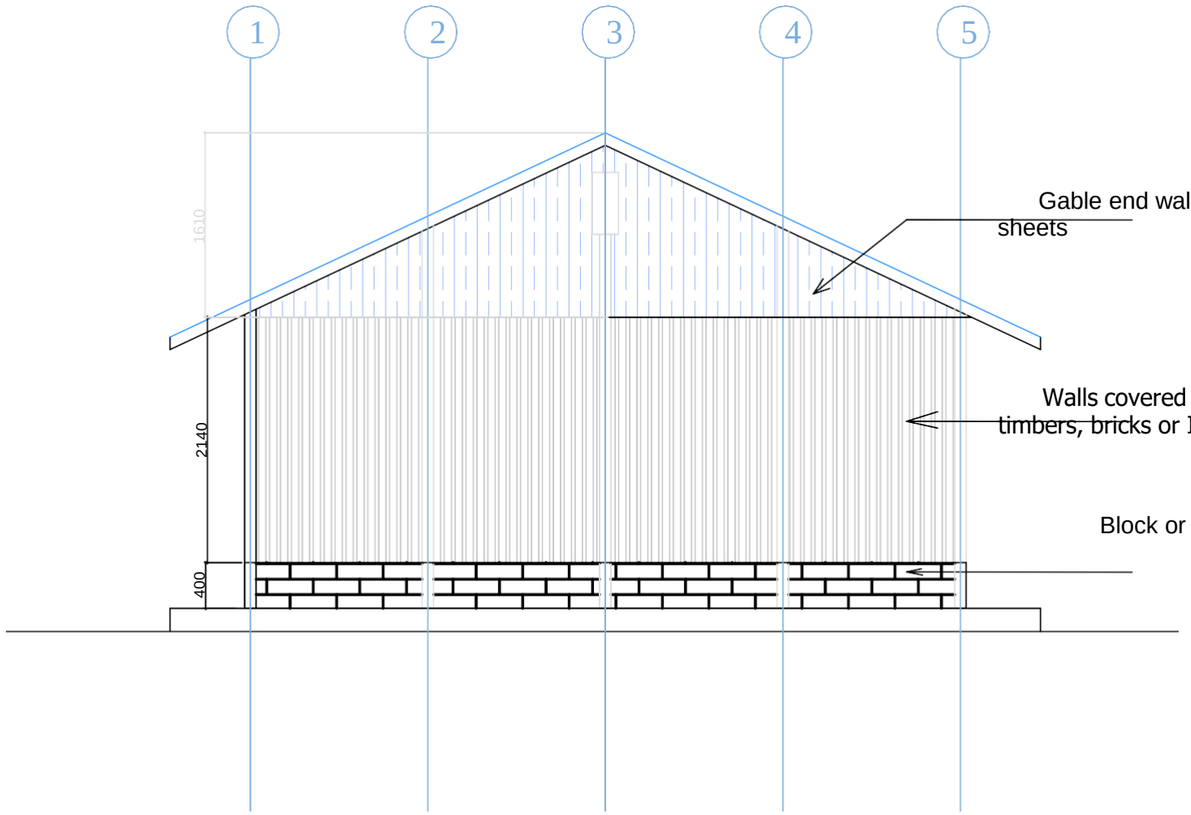
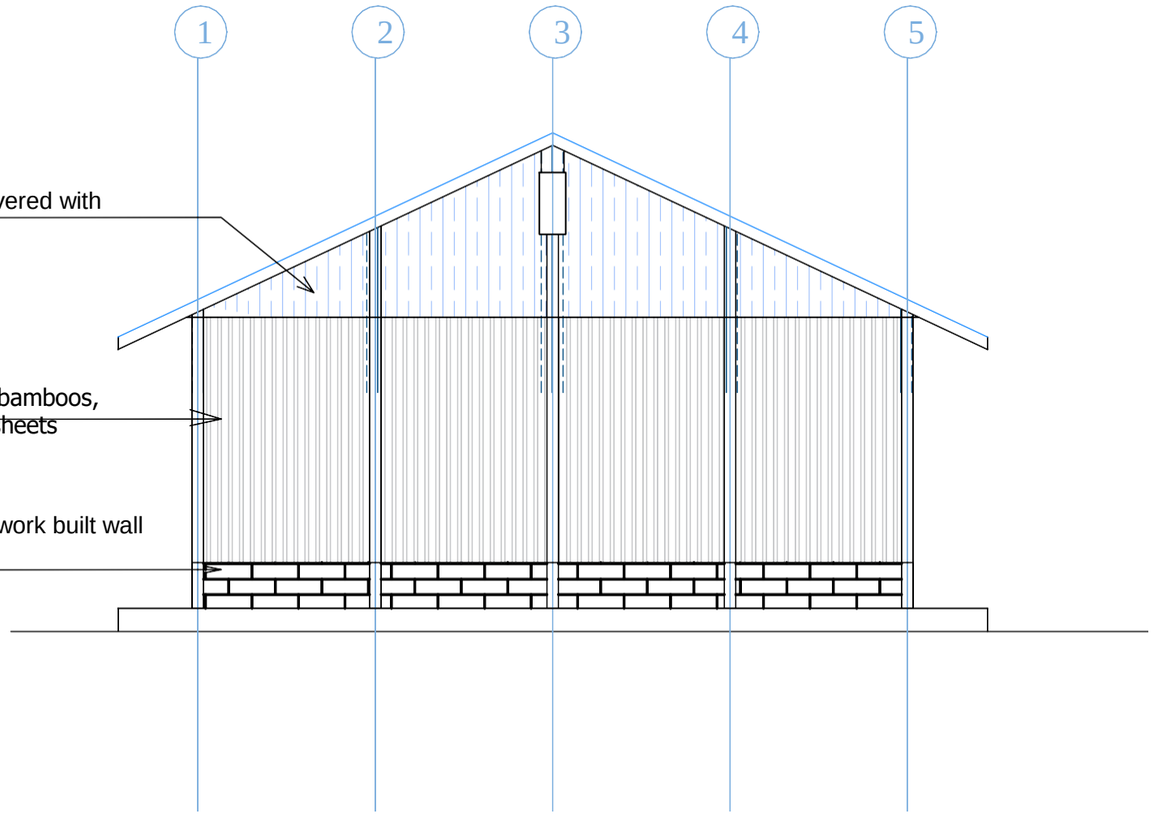


Gable end walls covered with sheets

Walls covered with bamboos, timbers, bricks or Iron sheets

Block or brickwork built wall

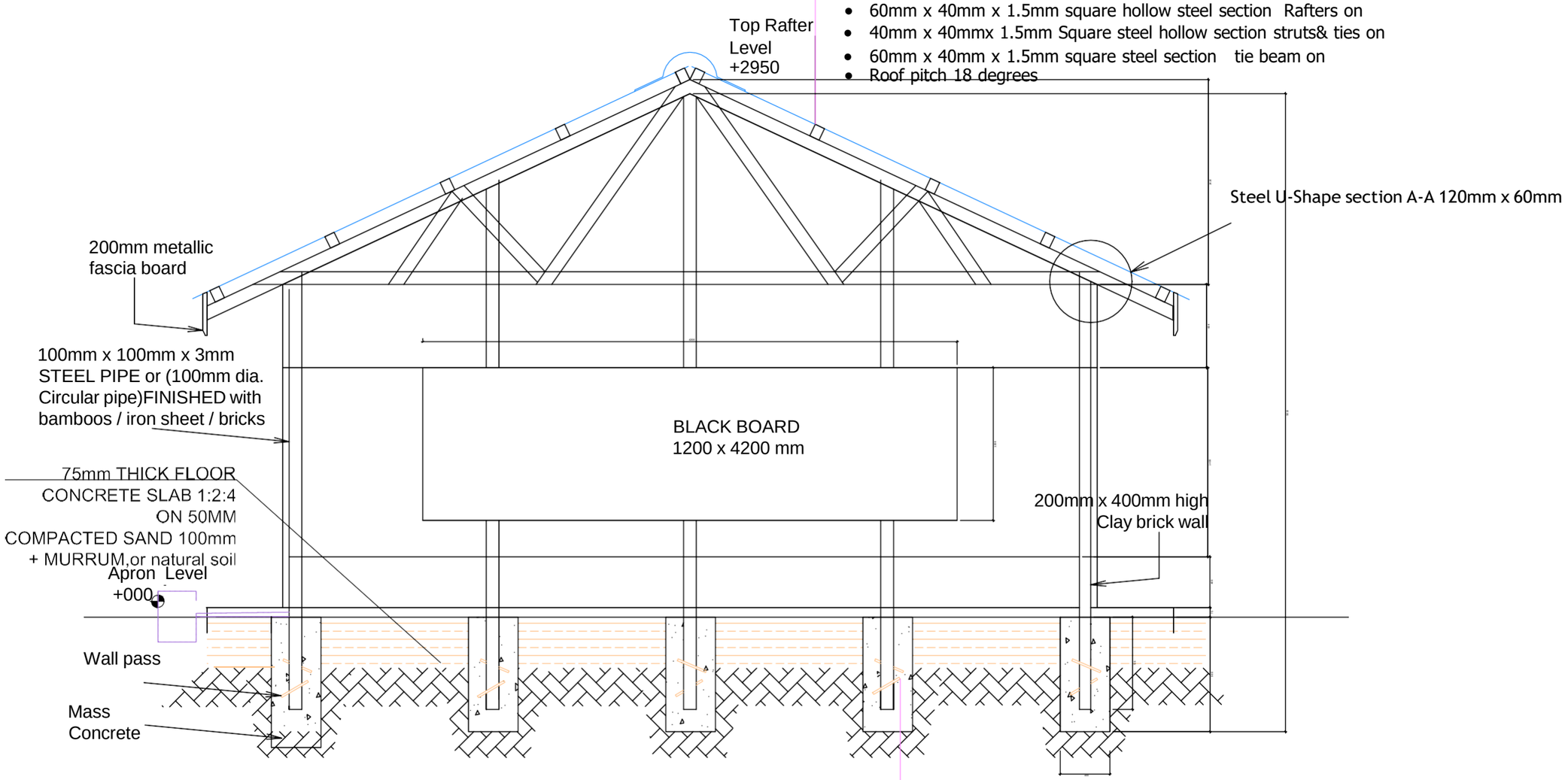


END ELEVATION
Scale 1:100

LEFT END ELEVATION
Scale 1:100

ROOF NOTES

- G28 Corrugated colored roof sheets
- 40mm X 40mm X 1.5mm thick square section Steel Purlins on
- 60mm x 40mm x 1.5mm square hollow steel section Rafters on
- 40mm x 40mmx 1.5mm Square steel hollow section struts& ties on
- 60mm x 40mm x 1.5mm square steel section tie beam on
- Roof pitch 18 degrees

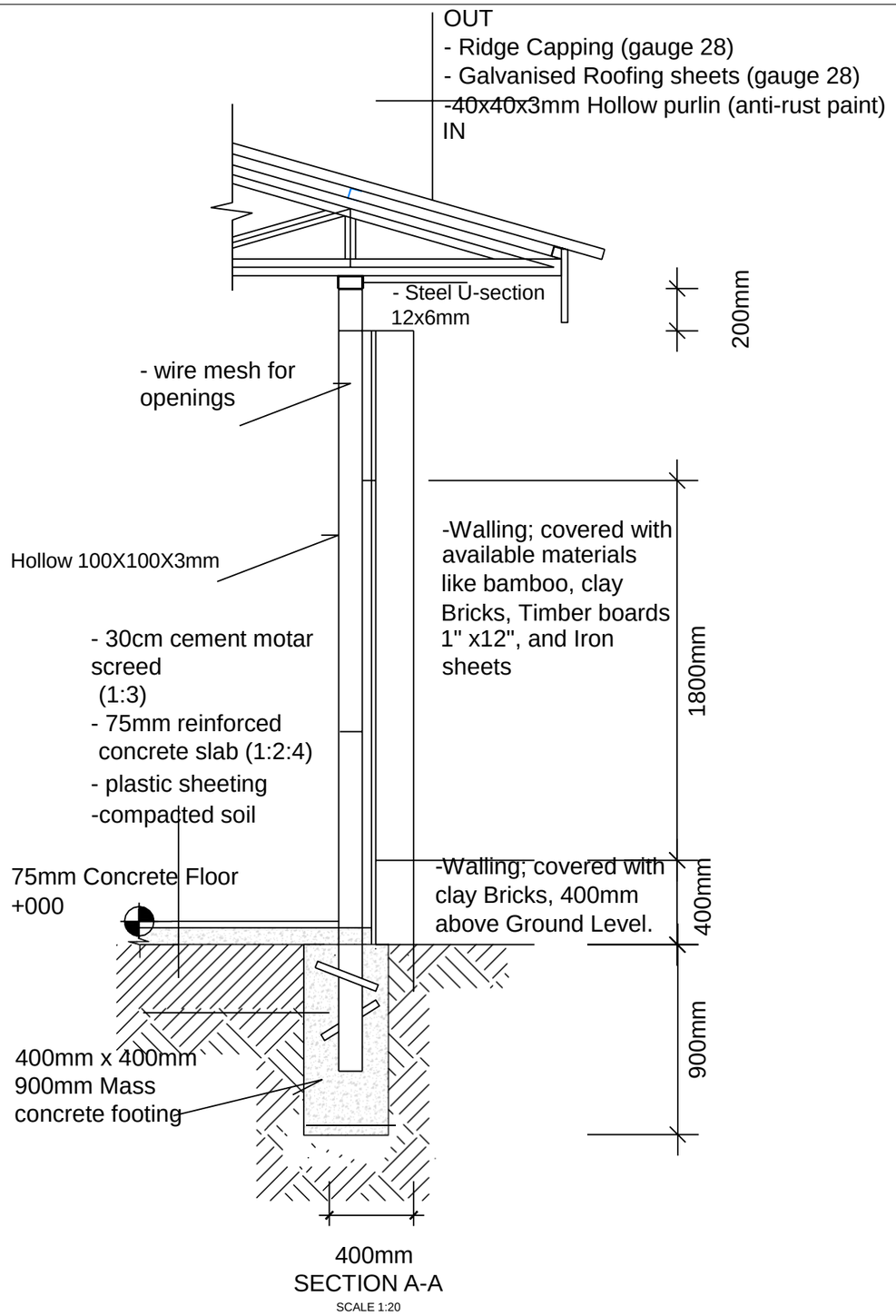


SECTION A-A scale 1:100

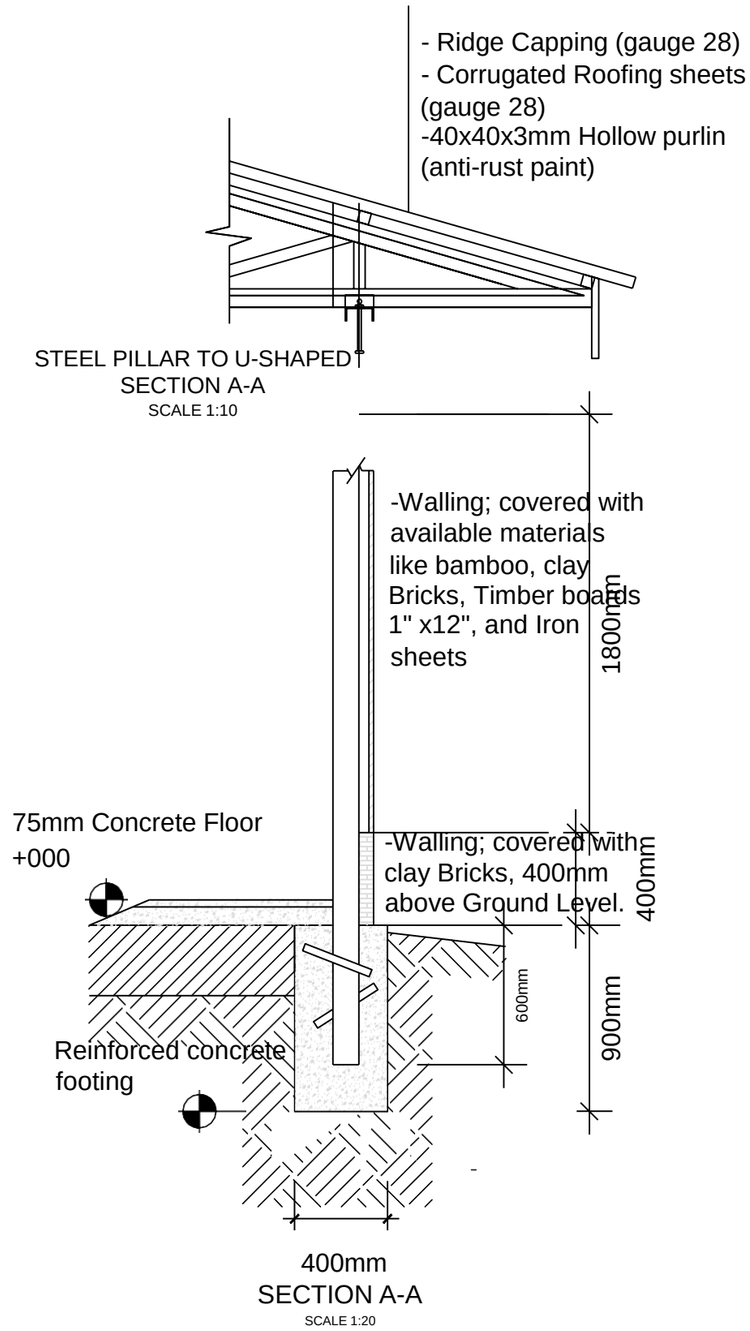
NOTE: IN LOCATION WITHOUT MURRAM LET'S USE THE NATURAL SOIL MIXED WITH SAND AND COMPACT TO REDUCE SHRINKAGE AND EXPANSION

FOUNDATION NOTES

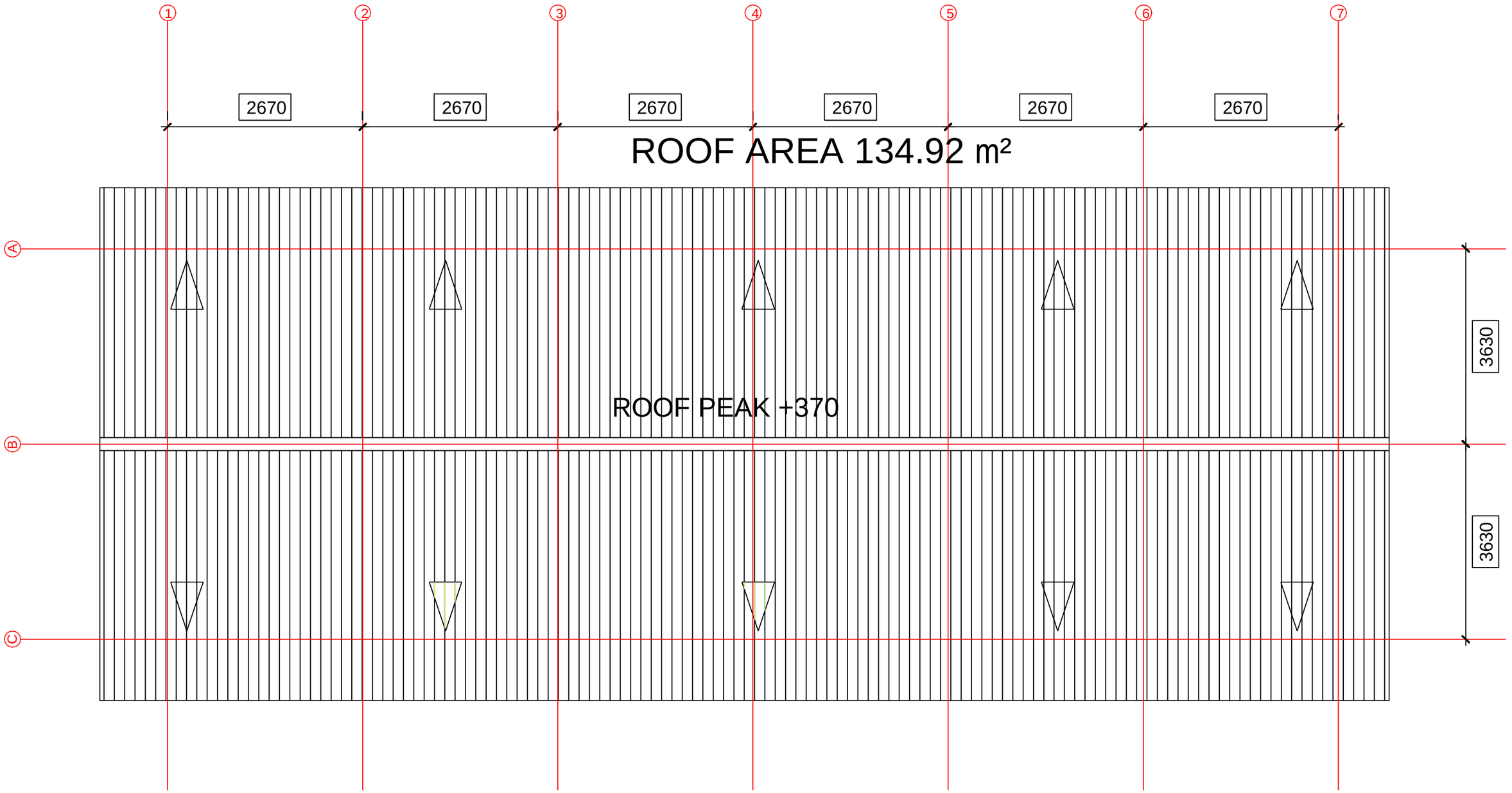
- Floor screed finishing
- 20mm thick cement mortar screed 1:3
- 75mm thick RC C25 reinforced with BRC 8mm dia
- 50mm thick sand on,
- 200mm Well compacted wet marram on,
- Well compacted natural soil



400mm
SECTION A-A
SCALE 1:20



400mm
SECTION A-A
SCALE 1:20



ROOF ARCH.

SCALE 1:75