CLASSROOM BLOCK - with 3 classrooms - (Black Cotton Soil)





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Enhancing Community Resilience and Local Governance Project

GOVERNMENT OF SOUTH SUDAN

Implemented By:

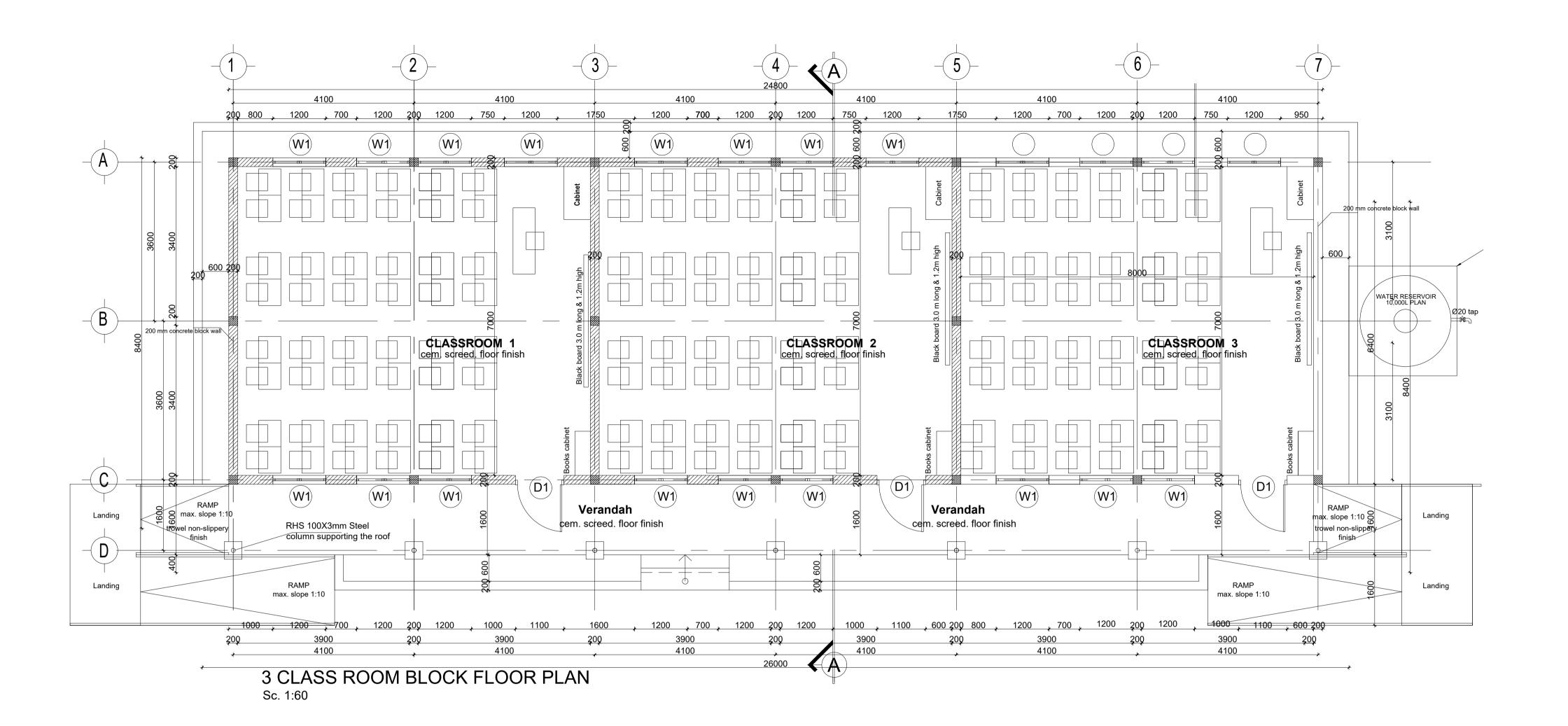


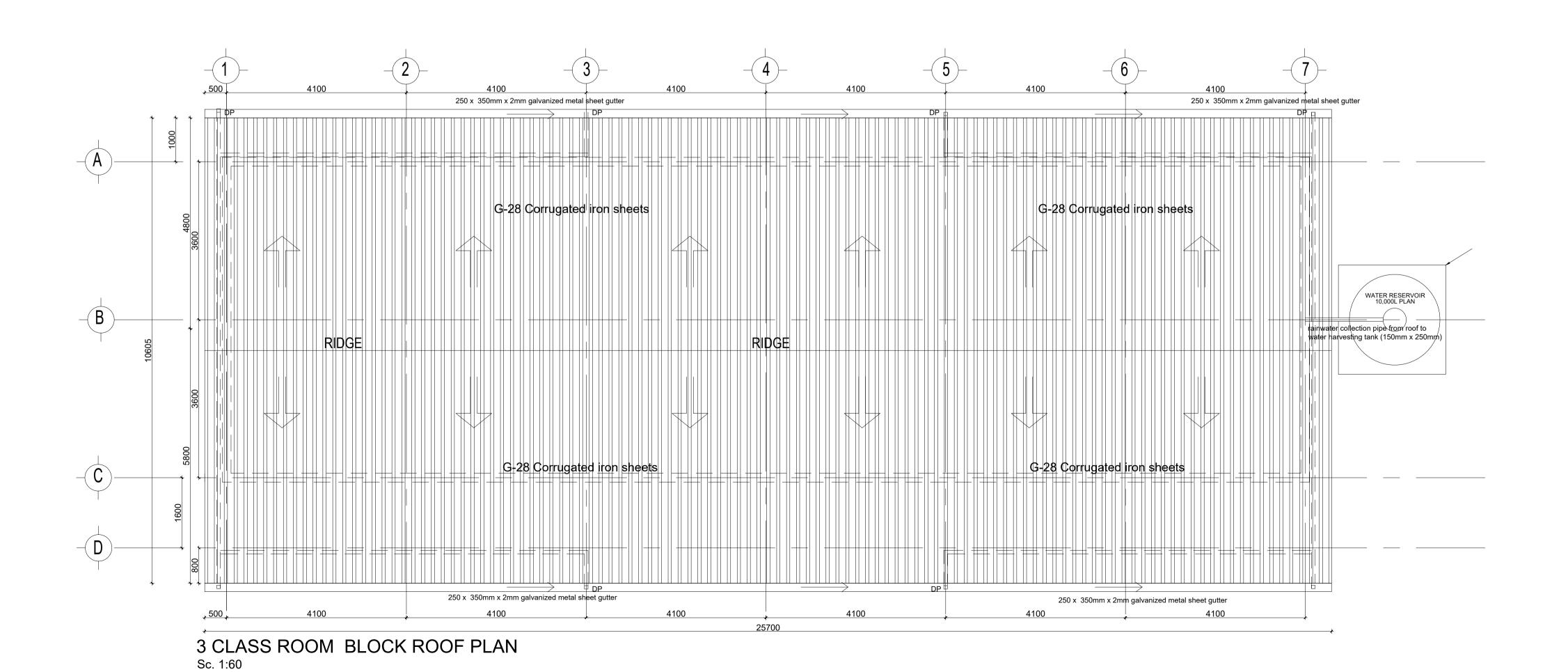
PROPOSED THREE CLASSROOMS BLOCK

Drawing Tittle

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Designed By:	H.A	Drawn by: H.A
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Sheet #:	1/9	Scale: AS SPECIFIED
Date:	10 December 2023	Rev: 0





GENERAL NOTES:



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Program



Client:

GOVERNMENT OF SOUTH SUDAN

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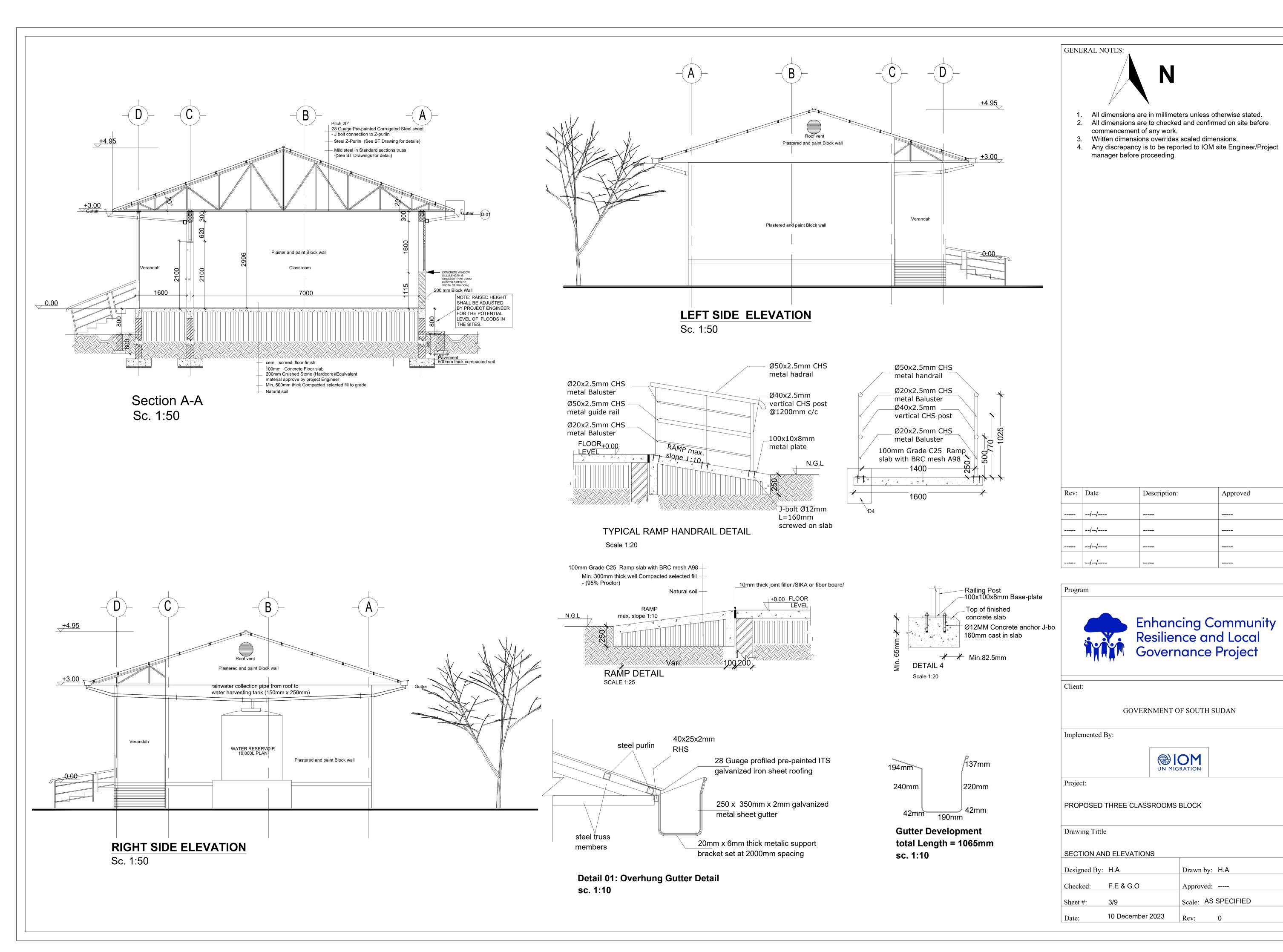
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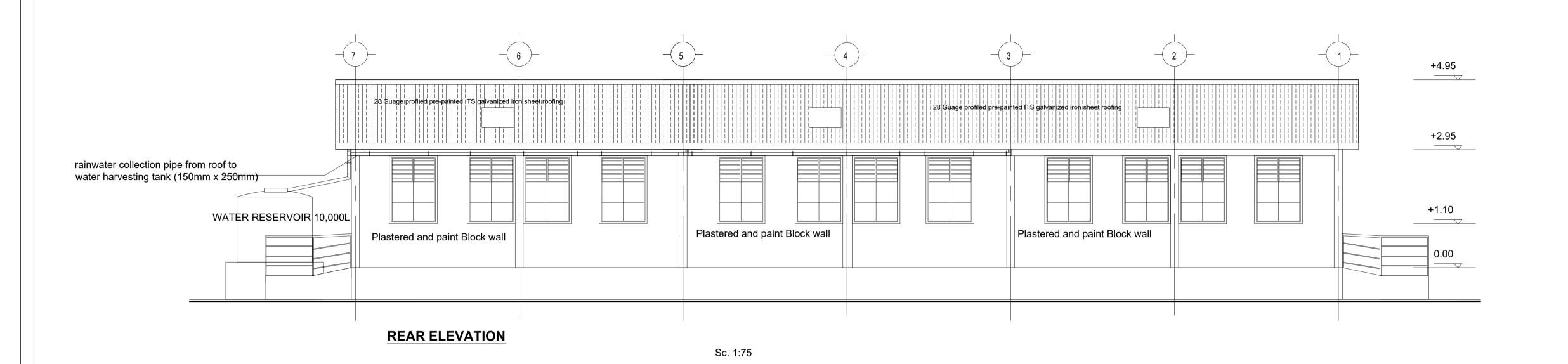
PROPOSED THREE CLASSROOMS BLOCK

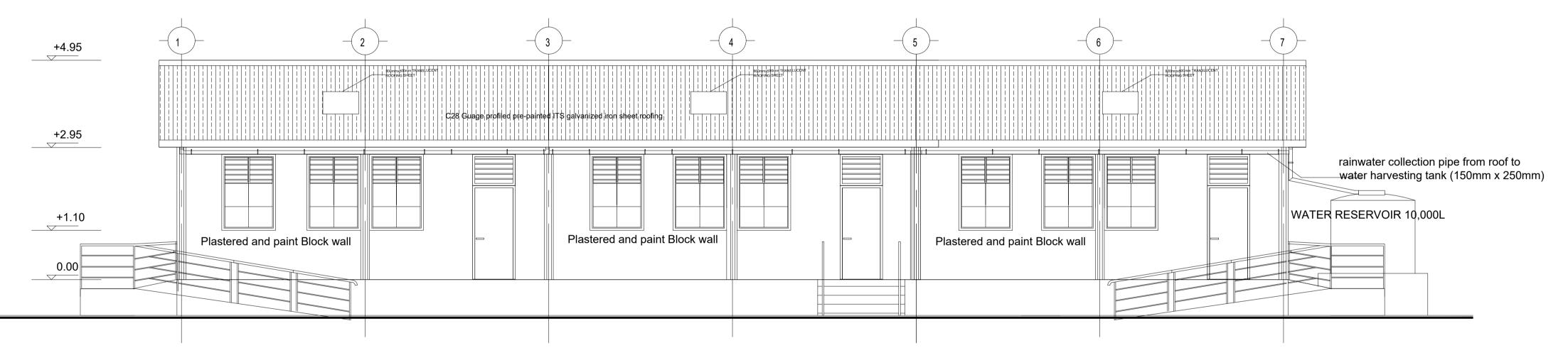
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FLOOR PLAN AND ROOF PLAN

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Sheet #:	2/9	Scale: AS SPECIFIED
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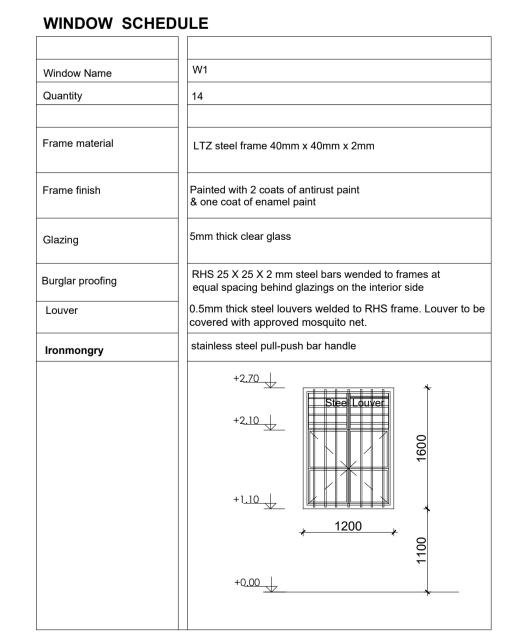


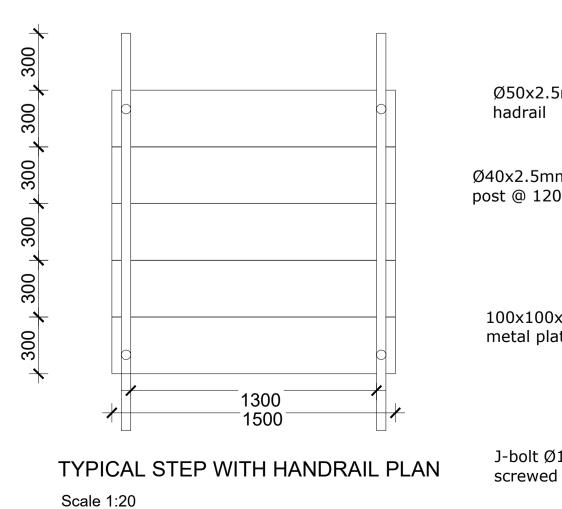


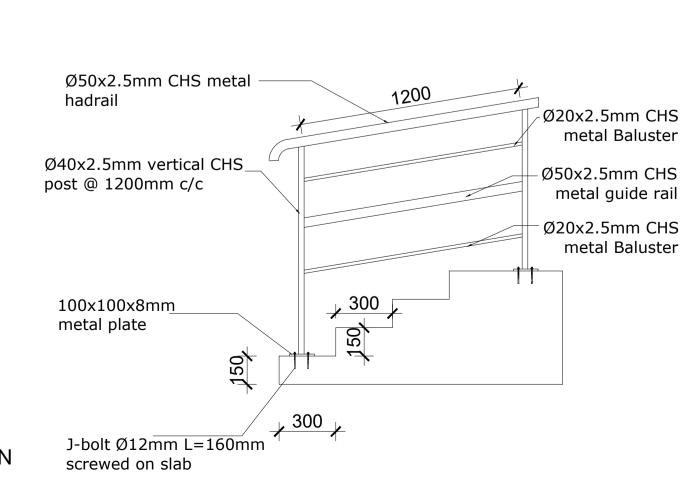
FRONT ELEVATION

Sc. 1:50

DOOR SCHEDU	
Door Name	D1
Quantity	2
Frame material	RHS steel frame 40mm x 40mm x 2mm
Frame finish	Painted with 2 coats of antirust paint & one coat of enamel paint
Door leaf construction	180D Opening, 0.5mm casement metal pane
Burglar Proofing	RHS 25mm x 25mm x 2mm Vertical steel bars at equal intervals welded to frames on the enterior side.
Ironmongry	stainless steel pull-push bar handle
Louver	0.5mm thick steel louvers at top welded to RHS frame. Louver to be covered with approved mosquito net.
	1100 to 1100











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Project:

PROPOSED THREE CLASSROOMS BLOCK

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ELEVATIONS AND DOOR & WINDOWS SCHEDULE

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Sheet #:	4/9	Scale: AS SPECIFIED
Date:	10 December 2023	Rev: 0

STRUCTURAL NOTES:

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- II) Stone masonry foundation shall be placed on the natural black cotton soil and achieve a minimum bearing capacity of 100 KN/m2. The top 500 mm soil shall be removed and replaced with well graded gravel material and compacted to the approval of the site supervisor.
- III) Foundation trench excavation to be approved by the Engineer prior to the construction of the stone masonry foundation.
- IV) Material Specification
- A) Grade of Structural Concrete

C-25 (Cube characteristics strength of 25 MPa) for columns and beams;

C-20 (Cube characteristics strength of 20 MPa) for floor slab)

B) Concrete reinforcement bar

Grade 460 (Characteristics yield strength of fyk = 460 MPa)

C) Steel hollow section for roofing system, verandah column and plates

Grade C: Tensile Strength = 375 Mpa

Yield Strength = 275 Mpa

D) Grade of Bolts

Grade 4.6: Yield Strength = 240 Mpa

Tensile Strength = 400 Mpa

- V) Durability Requirements
- Concrete Cover to Reinforcement
 - Floor slabs: 25mm.
 - Beams: 25mm
 - Columns: 38mm
 - All substructure (below the ground level): 50mm
- Protection of steel work
 - Surface preparation by blast cleaning, pickling process or where approved by wire brushing





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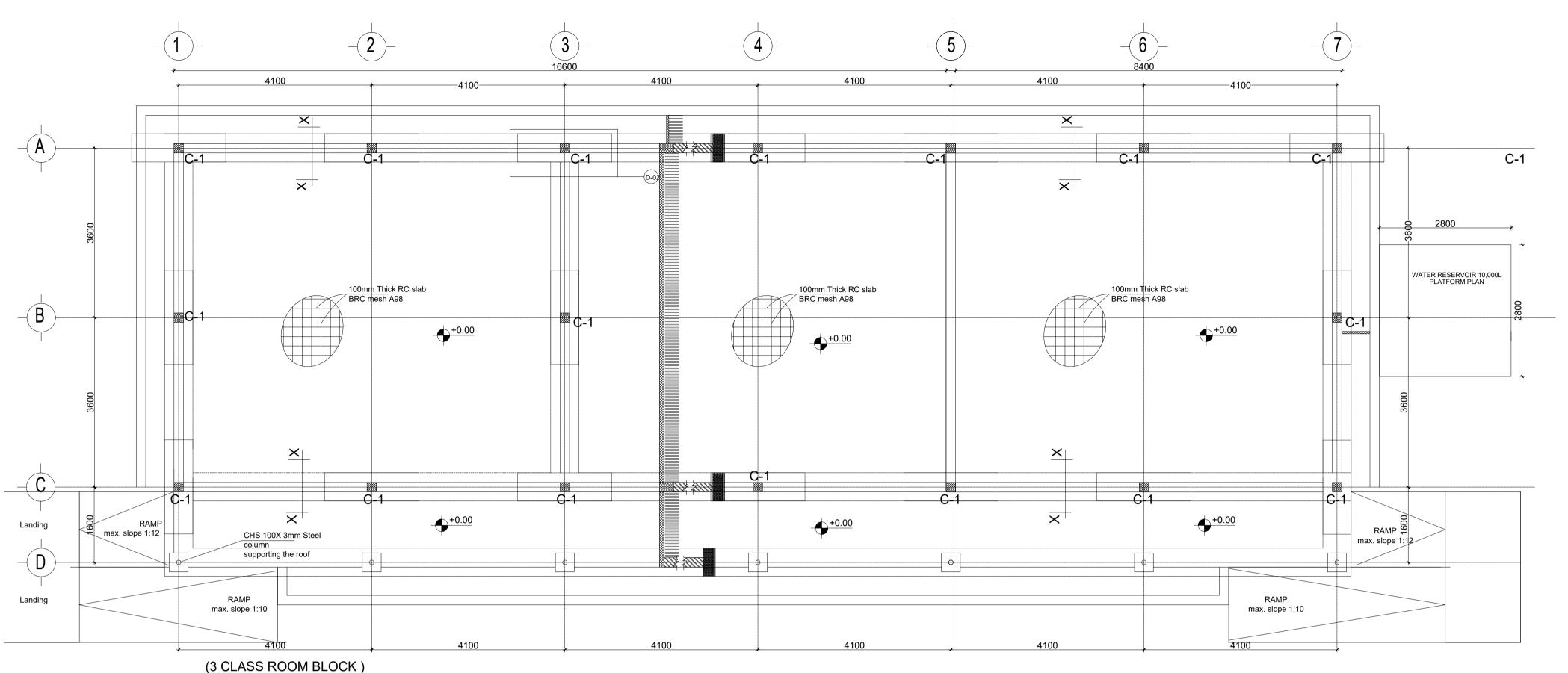
Project:

PROPOSED THREE CLASSROOMS BLOCK

Drawing Tittle

STRUCTURAL NOTES

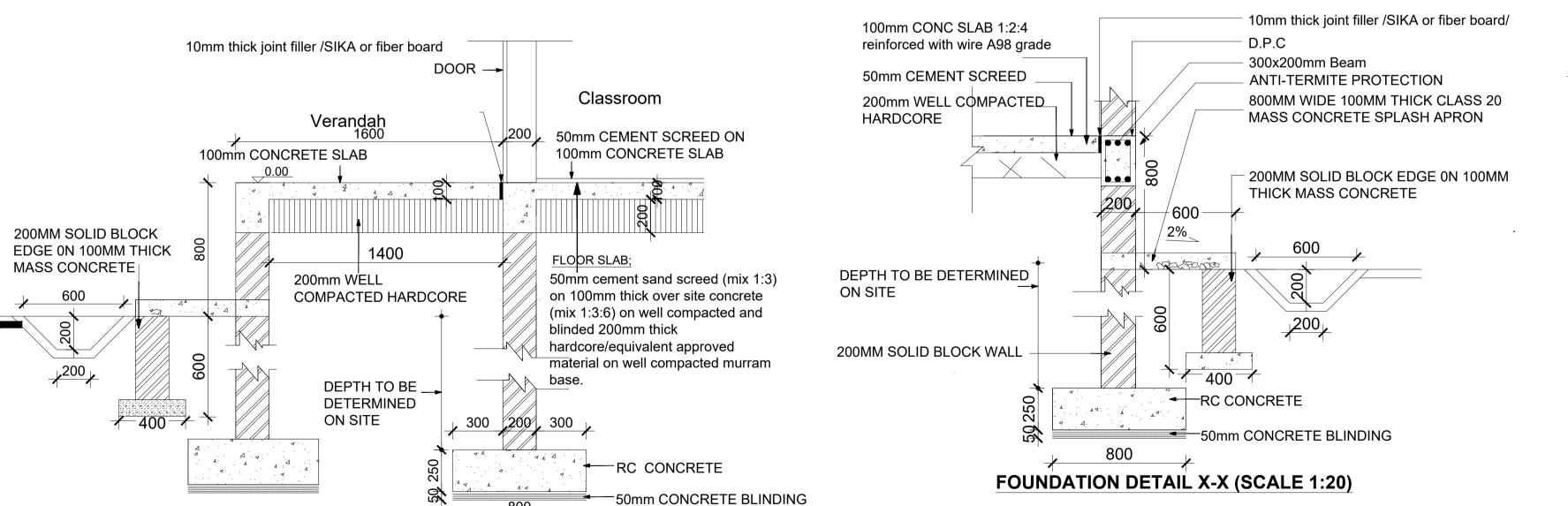
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Date:	10 December 2023	Rev: 0

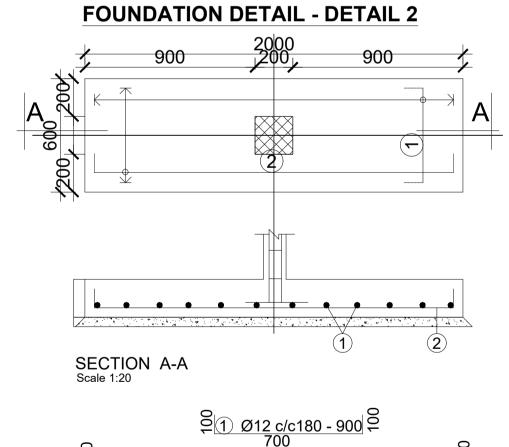


GROUND FLOOR SLAB REINFORCEMENT, BEAM AND COLUMN LAYOUT (slab thickens =100mm) SCALE 1:60

800

VERANDAH DETAIL (SCALE 1:20)





② Ø12 c/c180 -2100



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Yield Strength = 275 Mpa

D) Grade of Bolts

Grade 4.6: Yield Strength = 240 Mpa

Tensile Strength = 400 Mpa

V) Durability Requirements

- Concrete Cover to Reinforcement
- Floor slabs: 25mm.
- Beams: 25mm
- Columns: 38mm All substructure (below the ground level): 50mm

Protection of steel work

Surface preparation by blast cleaning, pickling process or where approved by wire

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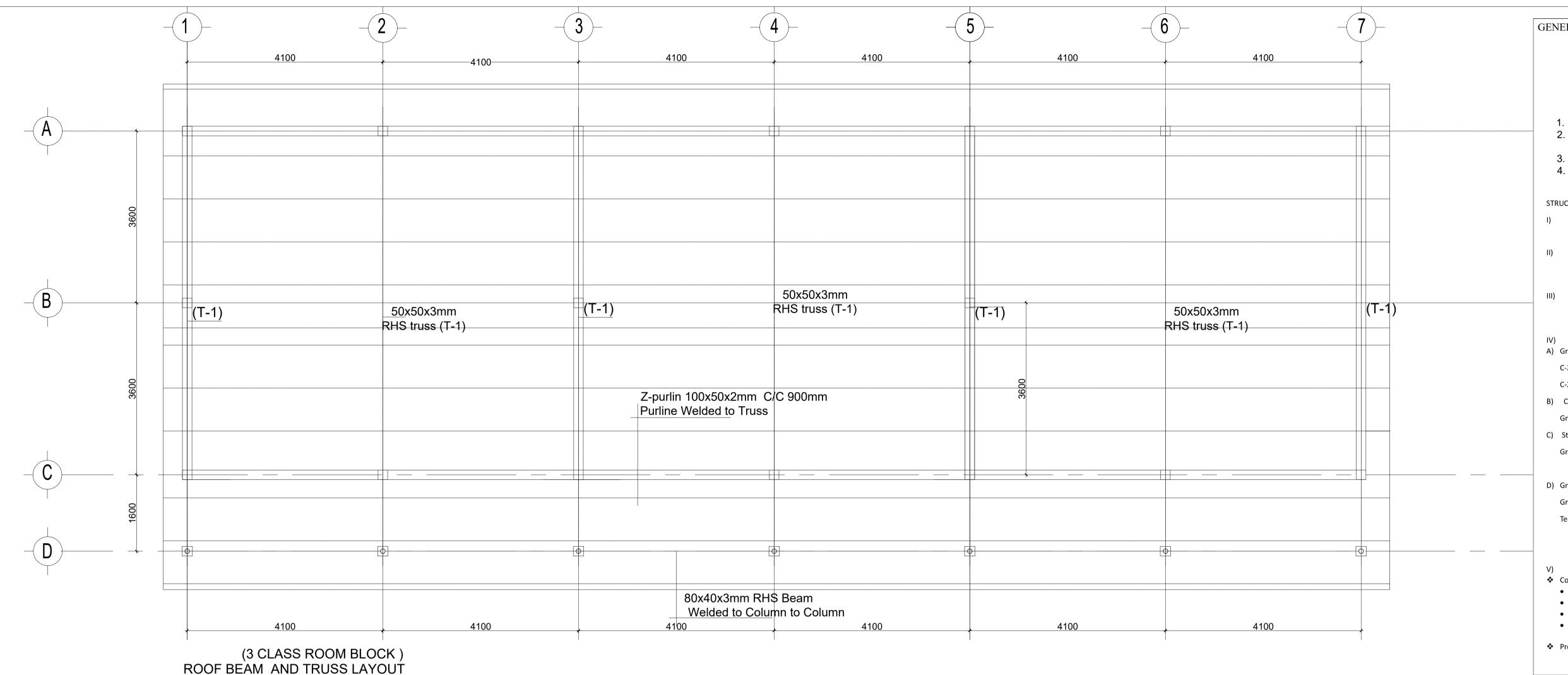


PROPOSED THREE CLASSROOMS BLOCK

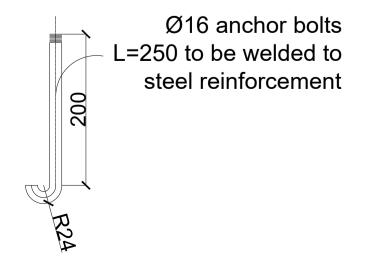
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FOUNDATION PLAN AND FOUNDATION DETAILS

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Z-purlin 100x50x2mm c/c900mm Z-purlin 100x50x2mm c/c900mm Purline Welded to Truss Purline Welded to Truss 1000 1867 50x50x3mm RHS top chord 1000 40x40x3 50x50x3mm RHS top chord 40x40x3mm RHS Internal bracing 40x40x3mm RHS Internal bracing DETAIL - 6 50x50x3mm RHS bottom chord 1000 1300 510 1000 1000 1000 1000 1000 DETAIL - 1 _{*} 790 1610 7200 TRUSS T-1 DETAIL SC:1.25



Beam to Truss J bolt Details

SCALE 1:5

SCALE 1:50

250 J-bolt detail

Purlin to G.I Sheet J bolt Details

SCALE 1:5





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D) Grade of Bolts

Grade 4.6: Yield Strength = 240 Mpa

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V) Durability Requirements

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❖ Protection of steel work

Surface preparation by blast cleaning, pickling process or where approved by wire

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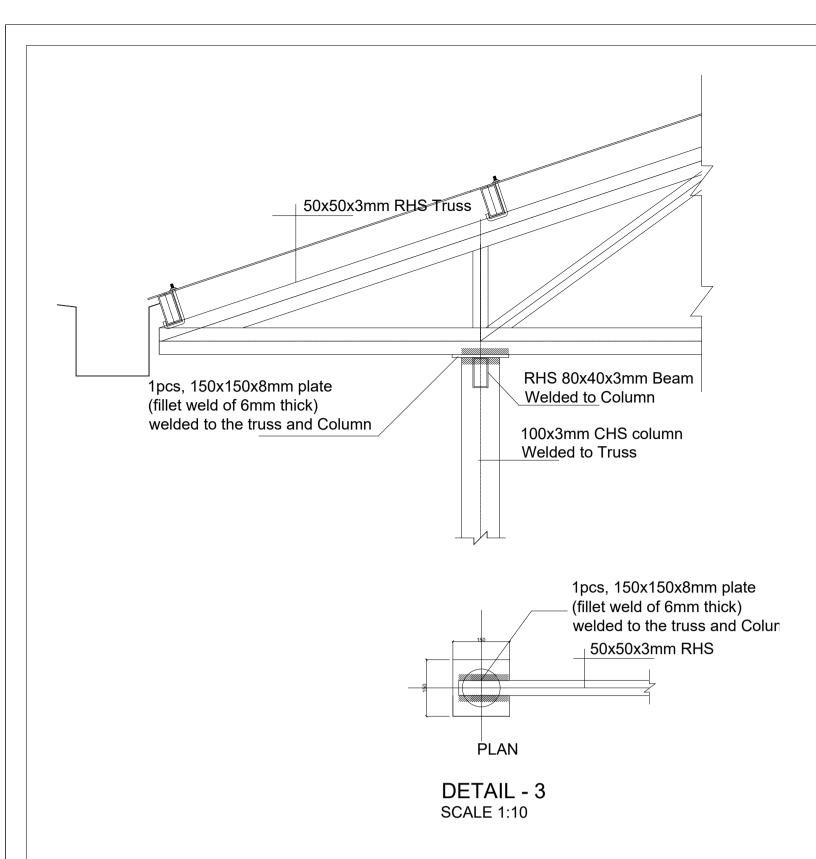
TRUSS LAYOUT AND DETAILS

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 H.A
 Drawn by:
 H.A

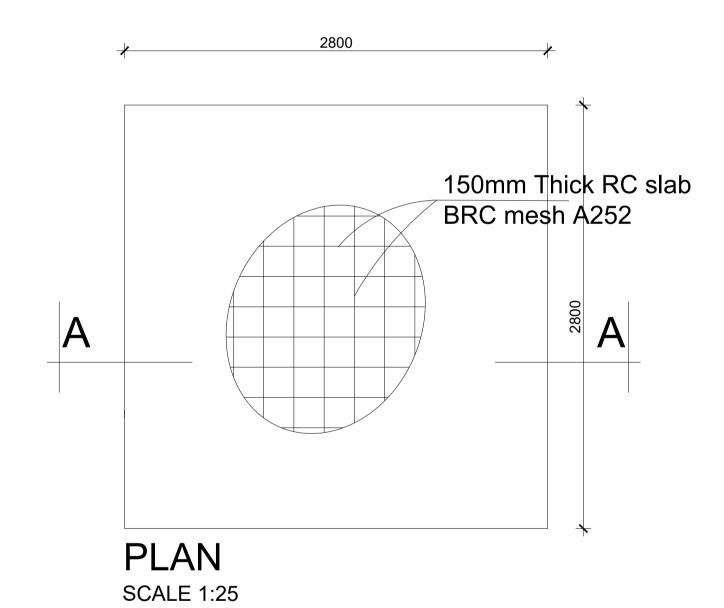
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 10 December 2023
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WATER RESERVOIR PLATFORM PLAN

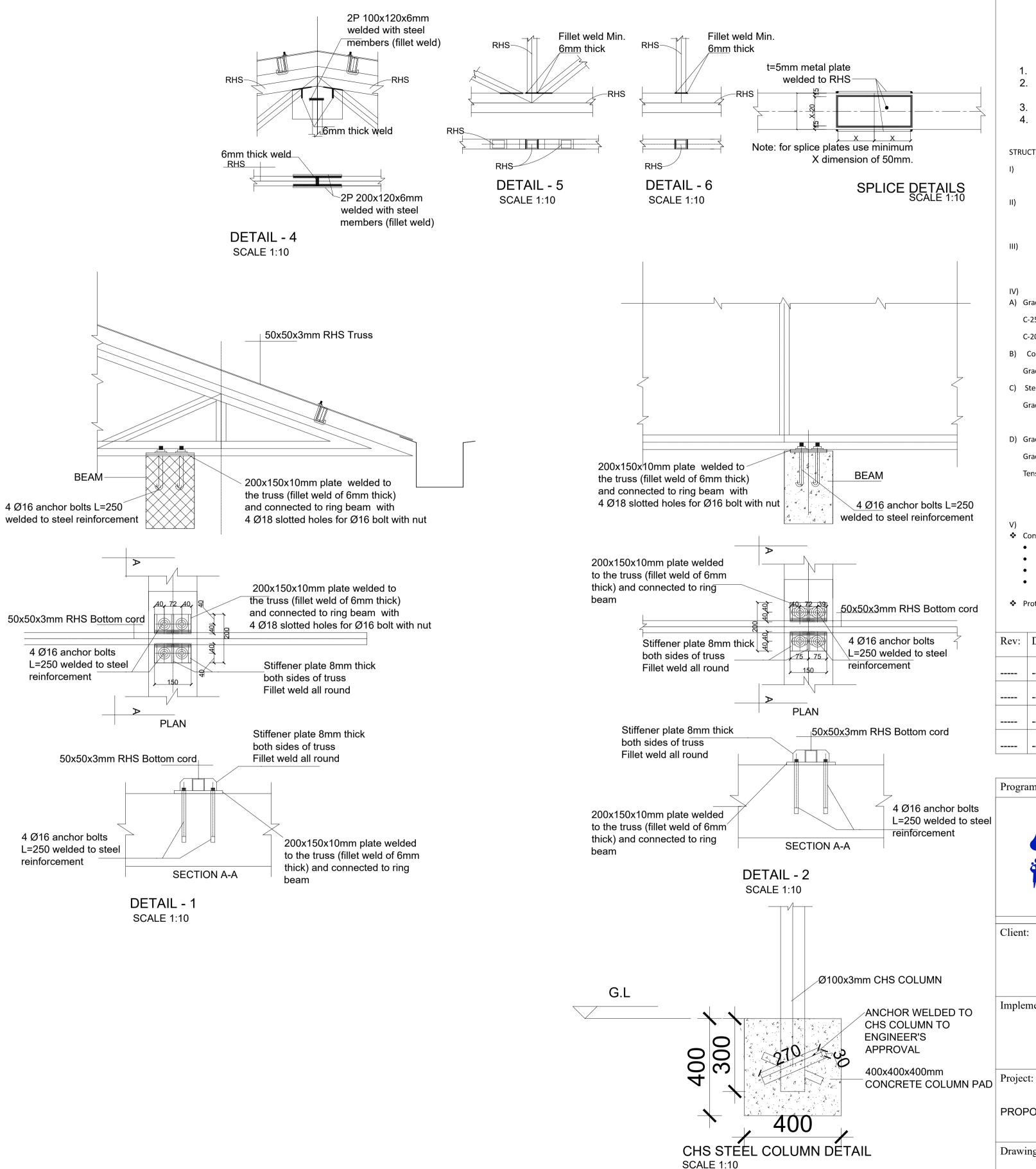


150mm Thick RC slab BRC mesh A252

500mm thick stone boulders with cement mortar Min.200mm thick well compacted selected fill (95% proctor) Natural soil

SECTION A-A

SCALE 1:25





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Program



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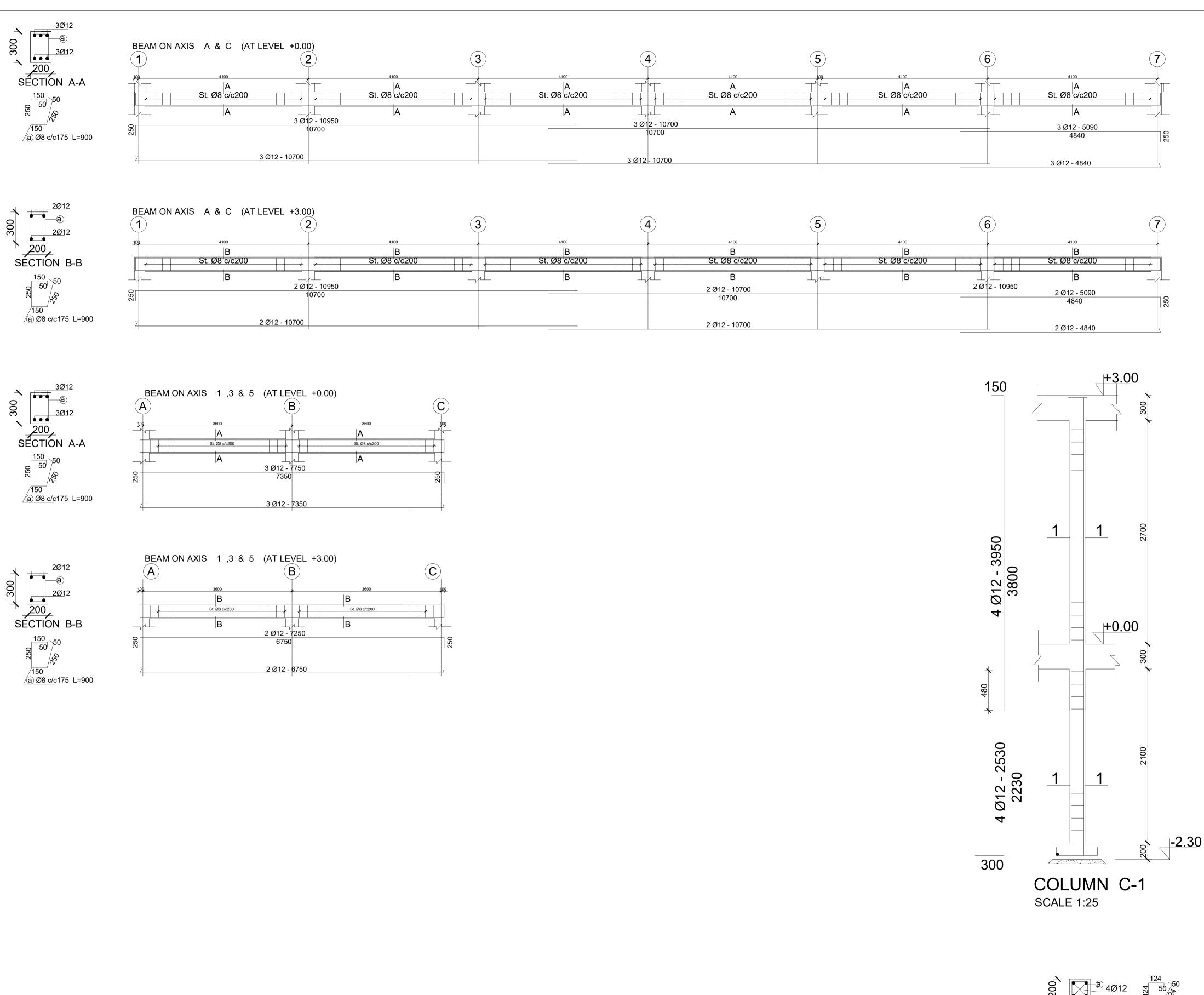


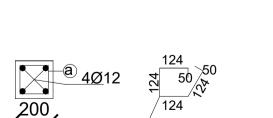
PROPOSED THREE CLASSROOMS BLOCK

Drawing Tittle

TRUSS, BEAM AND COLUMN DETAILS

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SECTION 1-1 SCALE 1:25





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TRUSS, BEAM AND COLUMN DETAILS

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