THE UNITED REPUBLIC OF TANZANIA

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

PROPOSED STANDARD DRAWINGS FOR SCHOOL FACILITIES.

Schedule of Materials, Labour & Drawings for Pre Primary Two Classrooms Block – Hipped (Earthquake zone)

PROJECT AREA

TANZANIA MAINLAND

Ministry of Education, Science and Technology,

Government City - Mtumba,
AFYA -Street,
P. O. Box 10,
40479 DODOMA.

President's Office,
Regional Administration,
& Local Government
Government City - Mtumba
TAMISEMI Street,
P. O. Box 1923,
41185 DODOMA.

NOVEMBER, 2022 (REVISED I)

PO-RALG

Schedule of Material

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	MATERIALS				
A	**SUB-STRUCTURE** -PROVISIONAL				
1	**Strip Foundation - Grade 15 Plain**				
	Aggregate (3/4")	11	M^3		
	Sand	6	M^3		
	Cement-50kgs (42.5)	51	Bags		
2	**Foundation Walls**				
	6" Cement & Sand block - Minimum Strength 3. 5 MPa	1,050	No		
	Sand	6	M^3		
	Cement -50kgs (42.5)	23	Bags		
3	**Moram, Hardcore & Site sterilization**				
	Moram ($4.5m^3$ lorry)	8	Trips		
	Hardcore 200mm thick - ($4.5m^3$ lorry)	8	Trips		
	Sand	6	M^3		
	Aldrin solution or other and equal approved (1000mls)	2	Bottle		
4	**Oversite Concrete 100mm thick - 15 grade ,Ground Beam and base column - 25 grade**				
	DPM	160	M^2		
	Cement -50kgs (42.5)	129	Bags		
	Aggregates (1/2")	20	M^3		
	Sand	11	M^3		
	Reinforcement - 12mm diameter high tensile 460N/mm2	39	PC'S		
	Reinforcement - 8mm diameter high tensile 460N/mm2	35	PC'S		
	Binding Wire - 25kg	10	Kgs		
	A252 Mesh 200 x 200x 6.16kg/m2	4	PC'S		
	Timber 1" X 10 " (5.2m long)	21	PC'S		
	Timber 2" X 2"	12	PC'S		
	Nails-4"	10	Kgs		
	Nails-3"	10	Kgs		
	Supporting props	12	PC'S		
	SUB-TOTAL SUBSTRUCTURE				
B.	**SUPERSTRUCTURE**				
1	**Walls Ring beam & Columns**				
	6" Cement & Sand block - Minimum Strength 3. 5 MPa - 230mm	2,065	No		
	6" Cement & Sand block - Minimum Strength 3. 5 MPa - 150mm	235	No		
	DPC 25m	1	Roll		
	Sand	15	M^3		
	Cement-50kgs (42.5)	82	Bags		
	Aggregates (1/2")	5	M^3		
	Reinforcement - 12mm diameter high tensile 460N/mm2	26	PC'S		
	Reinforcement - 8mm diameter high tensile 460N/mm2	25	PC'S		

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	Binding Wire - 25kg	12	Kg		
	Timber 1" X 10" to Sides (5.2m long)	32	PC'S		
	Timber 1" X 5" (Plates)	4	PC'S		
	Timber 2" X 2"	20	PC'S		
	Supporting Props	15	PC'S		
	SUB-TOTAL SUPER STRUCTURE				
C.	**ROOF STRUCTURE & COVERING**				
1	**Roof Structure -** Provisional				
	Timber 2 " X 3" Purlins	66	PC'S		
	Timber 2" X 4" King Post, wall plate and struts	78	PC'S		
	Timber 2" X 6" Rafter and Tie beam	75	PC'S		
	Fascia board 1" X 10" -ref. Semi Hardwood (5.2m long)	14	PC'S		
	Nails -5"	50	Kgs		
	Nails -4"	40	Kgs		
	Nails -3"	30	Kgs		
	16mm diameter bolt	36	Pc's		
	NOTE: The above softwood timber structure should be pressure impregnated treated				
2	**Roof Covering**				
	28G IT5 resin coated sheet	262	M^2		
	Hips/Ridge and valley - 28 G IT resin coated	13	PC'S		
	Roofing Nails	25	Packet		
3	**Gutter's**				
	Upvc 100mm half round (6m long)-5"	10	PC'S		
	Upvc 75mm diameter down pipe; Class B	2	PC'S		
	PVC outlet	2	PC'S		
	Gutter support bracket	38	PC'S		
	PVC bend 90'	2	PC'S		
	PVC bend 45'	4	PC'S		
	Gutter Clamp 3"	48	PC'S		
	Connector/reducer	8	PC'S		
	Connector outer	4	PC'S		
	Corner Inner	4	PC'S		
	Water storage tank; 5000 litres capacity with dust and insect proof lid; 20mm 3Nr tank connectors; 25mm 1Nr wash - out tank connector; 20mm high pressure ball float operated stop valve; all connections to IPS	1	PC'S		
	SUB-TOTAL ROOF STRUCTURE & COVERING				
D.	**CEILING**				
	Gypsum board -9mm thick	58	PC'S		
	Plain Cornice (8ft)	40	PC'S		
	Screw 1.25" 500pcs/box	3	Box		
	Gypsum powder	10	Bags		
	Fiber tape (90m)	2	Roller		
	Treated softwood Timber 2" X 2"	100	PC'S		
	Nails 4"	20	Kgs		
	Nails 3"	25	Kgs		
	SUB-TOTAL FOR CEILING				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
E.	**DOOR**				
1	**40mm thick hardwood Matchboarded door shutter**				
	820 x 2100mm high	2	PC'S		
2	**45 x 145mm Frames (hardwood),Varnish**				
	900 x 2500 mm high frame	2	PC'S		
	5mm thick clear glass to Vents	1	m2		
	16mm diametere burglar bars -1100mm long	6	Pcs		
	Brush 3"	3	Pcs		
	Sand paper (msasa) No.80	3	LM		
	Clear Varnish - 4Litres	1	TIN		
	Thinner for Varnish	3	Litres		
3	**Ironmongeries - ref Union**				
	Mortice lock Three lever	2	No		
	Brass hinges - 100mm	3	Pairs		
	SUB-TOTAL FOR DOORS				
F.	**WINDOWS**				
	Aluminium sliding Window comprising 100mm x 1.2mm thick standard aluminium profile ex-china/Turkey infill with 5mm thick glass complete with mosquito proofing panel, including all accessories, ironmongeries, cutting and pinning lugs				
	1500 X 2000mm high	10	PC'S		
	SUB-TOTAL FOR WINDOWS				
G.	**FINISHING**				
1	**Floor finishing**				
	Bedding/Backing; cement sand and Chipping (1:2:2); to steel finishing				
	40mm Thick granolithic floor screed steel trowlelling to smooth finishing				
	Sand	9	M^3		
	Cement-50kgs (42.5)	58	Bags		
	Chipping "1/4"	13	M^3		
	2mm thick plastic Strips	205	M		
2	**Wall Finishing -15mm thick (1:4)**				
	Sand	11	M^3		
	Cement-50kgs	74	Bags		
	Sand paper (msasa) No.120	10	M		
	White cement - 40kg	5	Bags		
	Gypsum powder	10	Bags		
	SUB-TOTAL FOR FINISHING				
H.	**BALUSTERS & HANDRAIL**				
	Supply and fix steel balustrade overall height 900mm high,				
	comprising 50mm diameter hollow section mild steel pipe top and				
	bottom rail, 38mm diameter intermediate rails, 50mm diameter				
	vertical rails 900mm high spaced at interval of 450mm centres				
	to centres including all bolts, plates and associated accessories				
	and welded works, red oxed and painted as per				
	architectural drawing to the aproval of Project Surpervisor.	18	m		
	SUB-TOTAL BALUSTERS & HANDRAIL				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
J.	**PAINTING & DECORATION**				
	Emulsion Paint - 20 LTRS	9	buckets		
	Weather guard Paint - 20 LTRS	3	buckets		
	Washable paint -20 LTRS	3	buckets		
	Primer paint -20 LTRS	2	buckets		
	Solvent - 5LTRS	2	TIN		
	Brush 3"	4	Pcs		
	Roller	4	Pcs		
	Blackboard paint	4	Litres		
	Gloss paint-4LTR	3	TIN		
	Bitumen paint - 4Litres	4	TIN		
	SUB-TOTAL FOR PAINTING&DECORATION				
K.	**ELECTRICAL INSTALLATION**				
	Single fluorescent fitting Complete,LED philips or other equal approved	18	No		
	Double switch socket ABB or other equal approved	2	No		
	Main switch 6way,1PH with integral RCD 100A/300mmA ABB other equal approved	1	No		
	NB: Cables for 1.5sqmm 2.5sqmm and 4sqmm should be EURO or other equal approved				
	Single core wire 1.5sqmm - Red	2	Roll		
	Single core wire 1.5sqmm - Black	2	Roll		
	Single core wire 1.5sqmm -green	2	Roll		
	Single core wire 2.5sqmm - red	50	M		
	Single core wire 2.5sqmm	50	M		
	Single core wire 2.5sqmm green	50	M		
	Ceiling fan National or other equal approved	12	PC's		
	3gang 1 way switch ABB or other equal approved	4	No		
	1gang 1 way switch ABB or other equal approved	1	No		
	2gang 1 way switch ABB or other equal approved	2	No		
	Earth rod approved copper 16mm not less than 1200mm	1	No		
	Earth wire 4sqmm	20	M		
	Metal box twin	2	No		
	Metal box single	7	No		
	Junction box	20	No		
	Conduit pipe	120	PC's		
	Elbow	20	PC's		
	Conduit coupling	20	PC's		
	Round cover	10	PC's		
	Round box	10	PC's		
	Fine screw	2	PACKET		
	plastic clips 22mm	2	BOX		
	Bulk head light fitting	4	PCS		
	SUB-TOTAL FOR ELECTRICAL INSTALLATIONINSTALLATION				

ITEM	DESCRIPTION	AMOUNT -TZS
	SUMMARY	
	2No CLASSROOM BLOCK FOR PRE PRIMARY - EARTHQUAKE ZONE	
A.	SUB-STRUCTURE -PROVISIONAL	
B.	SUPERSTRUCTURE	
C.	ROOF STRUCTURE & COVERING	
D.	CEILING	
E.	DOOR	
F.	WINDOWS	
G.	FINISHING	
H.	BALUSTERS & HANDRAILS	
J.	PAINTING & DECORATION	
K.	ELECTRICAL INSTALLATION	
	TOTAL BUILDING MATERIALS CARRIED TO GENERAL SUMMARY	

	ADD:
	LABOUR COST CARRIED TO GENERAL SUMMARY : (Improve and Fill the respective Labour form)
	Note:
	i. Refer specification and number of Furniture(s) for Pre primary schools
	ii. Refer General Summary for: Preliminary, Transportation and Supervision Costs
	iii. Preliminary cover the following item:
	- Setting out working tools, Equipments, Temporary toilets, water for the works, Scaffolding,
	- Power for the works, Security, store, Materials test, levelling, holdings and removal of rubbish.
	iv. Supervision cost depend on guideline of the specific project
	v. Installation of Ceiling Fan is an option, depend on whether condition of specific area .

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PROPOSED STANDARD DRAWINGS FOR SCHOOL FACILITIES.

Schedule of Materials, Labour & Drawings for Three stances Toilet block for Pre Primary school

PROJECT AREA

TANZANIA MAINLAND

Ministry of Education, Science and Technology,

Government City - Mtumba,
AFYA -Street,
P. O. Box 10,
40479 DODOMA.

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Government City - Mtumba
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P. O. Box 1923,
41185 DODOMA.

NOVEMBER, 2022 (REVISED I)

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Schedule of Material

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	MATERIALS				
A	**SUB-STRUCTURE -**PROVISIONAL				
1	**Strip Foundation - Grade 15 Plain**				
	Aggregate (3/4")	3	M^3		
	Sand	2	M^3		
	Cement-50kgs (42.5)	14	Bags		
2	**Foundation Walls**				
	6" Cement & Sand block - Minimum Strength 3. 5 MPa	250	No		
	Sand	2	M^3		
	Cement -50kgs (42.5)	5	Bags		
3	**Moram, Hardcore & Site sterilization**				
	Moram ($4.5m^3$ lorry)	1	Trips		
	Hardcore ($4.5m^3$ lorry)	1	Trips		
	Sand	2	M^3		
	Aldrin solution or equal 1000mls	1	Bottle		
4	**Oversite Concrete (100mm thick - 20 grade) & Ground Beam - 20 grade, columns and Ramp**				
	DPM	15	M^2		
	Cement -50kgs (42.5)	8	Bags		
	Aggregates (1/2")	2	M^3		
	Sand	2	M^3		
	Reinforcement - 12mm diameter high tensile	8	PC'S		
	Reinforcement - 8mm diameter	7	PC'S		
	Binding Wire	3	Kg		
	A252 Mesh 200 x200x6.16kg/m2	1	PC'S		
	Timber 1" X 10 " (3.6m long)	5	PC'S		
	Timber 2" X 2"	2	PC'S		
	Nails-4"	3	Kgs		
	Nails-3"	3	Kgs		
	Supporting props	2	PC'S		
	SUB-TOTAL SUBSTRUCTURE				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
B.	**SUPERSTRUCTURE**				
1	**Walls & Ring beam & Columns**				
	6" Cement & Sand block - Minimum Strength 3. 5 M	558	No		
	Cement & Sand Perforated blocks	0	No		
	DPC 25m long x 1m wide)	5	M		
	Sand	4	M^3		
	Cement-50kgs (42.5)	15	Bags		
	Aggregates (1/2")	1	M^3		
	Reinforcement - 12mm diameter high tensile	6	PC'S		
	Reinforcement - 8mm diameter	4	PC'S		
	Binding Wire	2	kg		
	A252 Mesh 200 x200x6.16kg	0	PC'S		
	Timber 1" X 10" to Sides (3.6m long)	3	PC'S		
	Timber 1" X 6" (Plates)	1	PC'S		
	Timber 2" X 2"	3	PC'S		
	Supporting Props	3	PC'S		
	SUB-TOTAL SUPER STRUCTURE				
C.	**ROOF STRUCTURE & COVERING**				
1	**Roof Structure -** Provisional (3.6m long)				
	Timber 2 " X 3" Purlins	4	PC'S		
	Timber 2" X 4" Wall plate,Rafter	5	PC'S		
	Fascia board 1" X 8"	4	PC'S		
	Nails -5"	2	Kgs		
	Nails -4"	2	Kgs		
	Nails -3"	2	Kgs		
	NOTE: The above softwood timber structure should be pressure impregnated treated				
2	**Roof Covering**				
	28G IT5 resincoated sheet 3m long	5	Pcs		
	Roofing Nails	1	Packet		
	TO COLLECTION			**C/F**	

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	ROOF STRUCTURE & COVERING CONT…				
				B/F	
3	**Gutter's**				
	Upvc 100mm half round (6m long)-5''	1	PC'S		
	Upvc 75mm diameter down pipe; Class B	1	PC'S		
	PVC outlet	1	PC'S		
	PVC bend 45'	1	PC'S		
	Gutter support bracket	4	PC'S		
	Gutter Clamp 3''	1	PC'S		
	Connector	1	PC'S		
	Connector outer	1	PC'S		
	Corner Inner	1	PC'S		
	SUB-TOTAL ROOF STRUCTURE & COVERING				
D.	**DOOR**				
1	**40mm thick hardwood (mninga) or equal and aproved paneled door shutter**				
	920 x 2100mm high	1	PC'S		
	720 x 2100mm high	2	PC'S		
2	**Frames (hardwood),Varnish, Glass & Burglar bar**				
	1000 x 2500 mm high frame	1	PC'S		
	800 x 2500 mm high frame	2	PC'S		
	Brush 3''	1	Pcs		
	Sand paper (msasa) No.80	1	LM		
	Clear Varnish - 4Litres	1	TIN		
	Thinner for Varnish -4Litres	1	Litres		
	Door grill with 38mm x 4mm flat bars, 25mm x 25mm square pipespainted with red oxide				
	1000 x 1500mm high	1	No		
	1000 x 750mm high	3	No		
3	**IronMongeries - ref Union**				
	Barrel bolt with pad lock	3	No		
	Flush bolt	3	No		
	Brass hinges - 100mm	5	Pairs		
	SUB-TOTAL FOR DOORS				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
E.	**FINISHING**				
1	**Floor finishing**				
	Bedding/Backing; cement sand (1:2); to steel finishing				
	Sand	1	M^3		
	Cement-50kgs (42.5)	2	Bags		
	300 x 300 x 8mm Non slippery Porcelain floor tiles (1.35 sqm per Box)	5	Box		
2	**Wall Finishing**				
	Sand	2	M^3		
	Cement-50kgs	4	Bags		
	250 X 400 x 8mm Wall tiles (1.5 Sqm/Box)	18	Box		
	Wall Puty	4	Bags		
	SUB-TOTAL FOR FINISHING				
F.	**PAINTING & DECORATION**				
	Emulsion Paint - 20 LTRS	2	buckets		
	Weather guard Paint - 10 LTRS	1	buckets		
	Washable paint -10 LTRS	1	buckets		
	Primer paint -5 LTRS	1	buckets		
	Solvent - 5LTRS	1	TIN		
	Brush 3"	2	Pcs		
	Roller	1	Pcs		
	Gloss paint-4LTR	1	TIN		
	Bitumen paint - 4Litres	1	TIN		
	SUB-TOTAL FOR PAINTING&DECORATION				
G.	**PLUMBING & SANITARY INSTALLATION-PROVISIONAL**				
	Semi pedestal Hand washing basin complete	No	2		
	WC Asian type complete with p-trap 9 liters single flush cistern	No	2		
	Shataf stainless steel 304, 1000mm long braided hose .	No	2		
	Angle Valve chrome plated brass	No	9		
	HWB PVC-U trap 1.1/4'' Falcon	No	2		
	Looking mirror (600mm by 800mm by 6mm)	No	2		
	PVC-U Floor drainer/Trap 110mm	No	1		
	Strainer albeetony/venus	No	1		
	Ceramic toilet paper holder	No	2		
	Toilet brush holder	No	2		
	Complete set of walfare for person with disability, Western WC, stainless steel 304 grab bar, stainless steel 304 folding hand rail, HWB, Pillar tap, Floor drainer and bib cork	No	1		

ITEM	DESCRIPTION OF WORKS	UNIT	QTY	PRICE	AMOUNT
	PIPES WORK IN BUILDING				
	A: SUPPLY PIPE PN 16				
	PPR/IPS pipes class B argentina 3/4"	Pcs	2		
	PPR/IPS socket (20Ø) 3/4"	No	3		
	PPR/IPS elbow (20Ø) 3/4"	No	15		
	PPR/IPS tee (20Ø) 3/4"	No	9		
	PPR/IPS niple (20Ø) 3/4"	No	10		
	PPR/IPS reducing bush (20Ø) 3/4" to 1/2"(15Ø)	No	9		
	PPR/IPS pipes class B argentina 1"(32Ø)	Pcs	2		
	PPR/IPS socket 1"(32Ø)	No	6		
	PPR/IPS elbow 1"(32Ø)	No	4		
	PPR/IPS tee 1"(32Ø)	No	4		
	PPR/IPS niple 1"(32Ø)	No	10		
	PPR/IPS reducing bush (32Ø) 1" to 3/4"(20Ø)	No	6		
	PPR/IPS pipes class B argentina 11/2"(50Ø)	Pcs	2		
	PPR/IPS socket 11/2"(50Ø)	No	6		
	PPR/IPS elbow 11/2"(50Ø)	No	4		
	PPR/IPS tee 11/2"(50Ø)	No	4		
	PPR/IPS niple 11/2"(50Ø)	No	4		
	PPR/IPS reducing bush (50Ø) 11/2" to 1"(32Ø)	No	9		
	B: SOIL DRAINAGE PVC-U PN6 PIPES AND FITINGS -				
	PVC-U pipe class B 1.1/4"	Pcs	2		
	PVC-U elbow 1.1/4", 135deg	No	3		
	PVC-U elbow 1.1/4", 90 deg	No	4		
	PVC-U Ytee 1.1/4"	No	2		
	PVC-U pipe class B 4"	Pcs	2		
	PVC-U elbow 4"	No	6		
	PVC-U Ytee 4"	No	2		
	PVC-U WYES 4"	No	1		
	PVC-U Tangit 1000g	No	2		
	P-Trap ERA 4"	No	1		
	PE 100 Gully trap 4",ERA	No	1		

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	EXTERNAL WORK				
	A: Drainage works				
	PVC-U pipe class B plascon 4" 6m	Pcs	6		
	ManHole cover 600mm x 600mm medium	No	4		
	Gully trap cover 300mm x 300mm medium	No	3		
	B: Water Supply Pipe HDPE, PE100				
	1.5" HDPE supply pipes Class C	m	12		
	HDPE bend 1.5"	No	2		
	HDPE Tee Polly to polly 1.5"	No	3		
	HDPE polly coupling 1.5"	No	4		
	1.25" HDPE supply pipes Class C	m	12		
	HDPE bend 1.25"	No	5		
	HDPE Male connector 1.25"	No	4		
	HDPE Tee Polly to polly 1.25"	No	4		
	HDPE polly coupling 1.25"	No	4		
	VALVES AND CONTROLS				
	Bib cork pex/martex 1/2" PN 16	No	2		
	Gate valve pex/martex 3/4" PN 16	No	3		
	Ball valve 11/4"	No	1		
	WATER STORAGE TANK				
	2,000litres water storage tank	No	1		
	1,000litres water storage tank	No	1		
	Tank connector 1"	No	2		
	Clamp 3"	PC'S	1		
	SUB-TOTAL FOR PLUMBING & SANITARY INSTALLATION-				
H.	**RISER FOR WATER TANK (4M HIGH)**				
	6" Cement & Sand block - Minimum Strength 3. 5 MPa	190	No		
	Cement-50kgs	8	Bags		
	Aggregates (1/2")	1	M3		
	Sand	3	M3		
	Reinforcement - 12mm diameter high tensile	4	Pcs		
	Binding Wire - 25kg	1	kg		
	Timber 1" X 10" to Sides (3.6m long)	6	Pcs		
	Nails-4"	1	kg		
	Nails-3"	1	kg		
	TOTAL; RISER FOR TANK				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
J.	**MANHOLE,GULLY TRAP, SEPTIC TANK, SOAK PIT.**				
	MANHOLE:				
	Construct standard manhole size 600 x 600mm average depth 850mm deep;	No	3		
	GULLY TRAP				
	Construct a standard gully trap 300×300mm deep	No	3		
	SEPTIC TANK:				
	Construct septic tank overall internal dimensions; size 3300 x 2400x 3000mm.	No	1		
	SOAK PIT (S.P)				
	Construct Soak pit overall size 3000mm diameter x 3500mm high	No	1		
	TOTAL; MANHOLE,GULLY TRAP, SEPTIC TANK, SOAK PIT.				

K.	**ELECTRICAL INSTALLATION**				
	PRE PRIMARY TOILET				
	Single fluorescent fitting Complete,LED philips or	4	No		
	NB: Cables for 1.5sqmm 2.5sqmm and 4sqmm should be EURO or other equal approved				
	Single core wire 1.5sqmm - Red	30	M		
	Single core wire 1.5sqmm - Black	30	M		
	Single core wire 1.5sqmm -green	30	M		
	Twin cable wire 2.5sqmm	30	M		
	1gang 1 way switch ABB or other equal approved	3	No		
	Ceiling light complete with energy saver 11w	3	No		
	Metal box single	3	No		
	Junction box	3	No		
	Conduit pipe	3	PC's		
	Elbow	3	PC's		
	Conduit coupling	3	PC's		
	Round cover	3	PC's		
	Round box	1	PC's		
	plastic clips 22mm	1	BOX		
	SUB-TOTAL FOR ELECTRICAL INSTALLATIONS				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
L	**Steel handrails to ramp**				
	Supply and fix steel support handrails 750mm high				
	comprising 38mm diameter hollow section pipe				
	top, bottom and vertical rails spaced at 300mm				
	centres to centres as per Architectural drawings	8	m		
	SUB-TOTAL FOR HANDRAILS				

	GENERAL SUMMARY	**AMOUNT TZS**
	2no stances with 0ne Disability stances toilets block -Wet area	
A.	SUB-STRUCTURE -PROVISIONAL	
B.	SUPERSTRUCTURE	
C.	ROOF STRUCTURE & COVERING	
D	DOOR	
E	FINISHING	
F	PAINTING & DECORATION	
G	PLUMBING & SANITARY INSTALLATION-PROVISIONAL	
H	RISER FOR WATER TANK	
J	MANHOLE, GULLYTRAP,SEPTIC TANK AND SOAK PIT	
K	ELECTRICAL INSTALLATIONS	
L	HANDRAILS TO RAMP	
	TOTAL BUILDING MATERIALS CARRIED TO GENERAL SUMMARY	
	ADD:	
	LABOUR COST CARRIED TO GENERAL SUMMARY : (Improve and Fill the respective Labour form)	
	Note:	
	i Refer General Summary for: Preliminary, Transportation and Supervision Costs	
	ii. Preliminary cover the following item:	
	- Setting out working tools, Equipments, Temporary toilets, water for the works, Scaffolding,	
	- Power for the works, Security, store, Materials test, levelling, holdings and removal of rubbish.	
	iii. Supervision cost depend on guideline of the specific project	

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY

IN COLLABORATIONS WITH

PRESIDENT'S OFFICE, REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

Ministry of Education, Science and Technology
Government City-Mtumba,
Afya Street,
P.O. Box 10,
40479 DODOMA

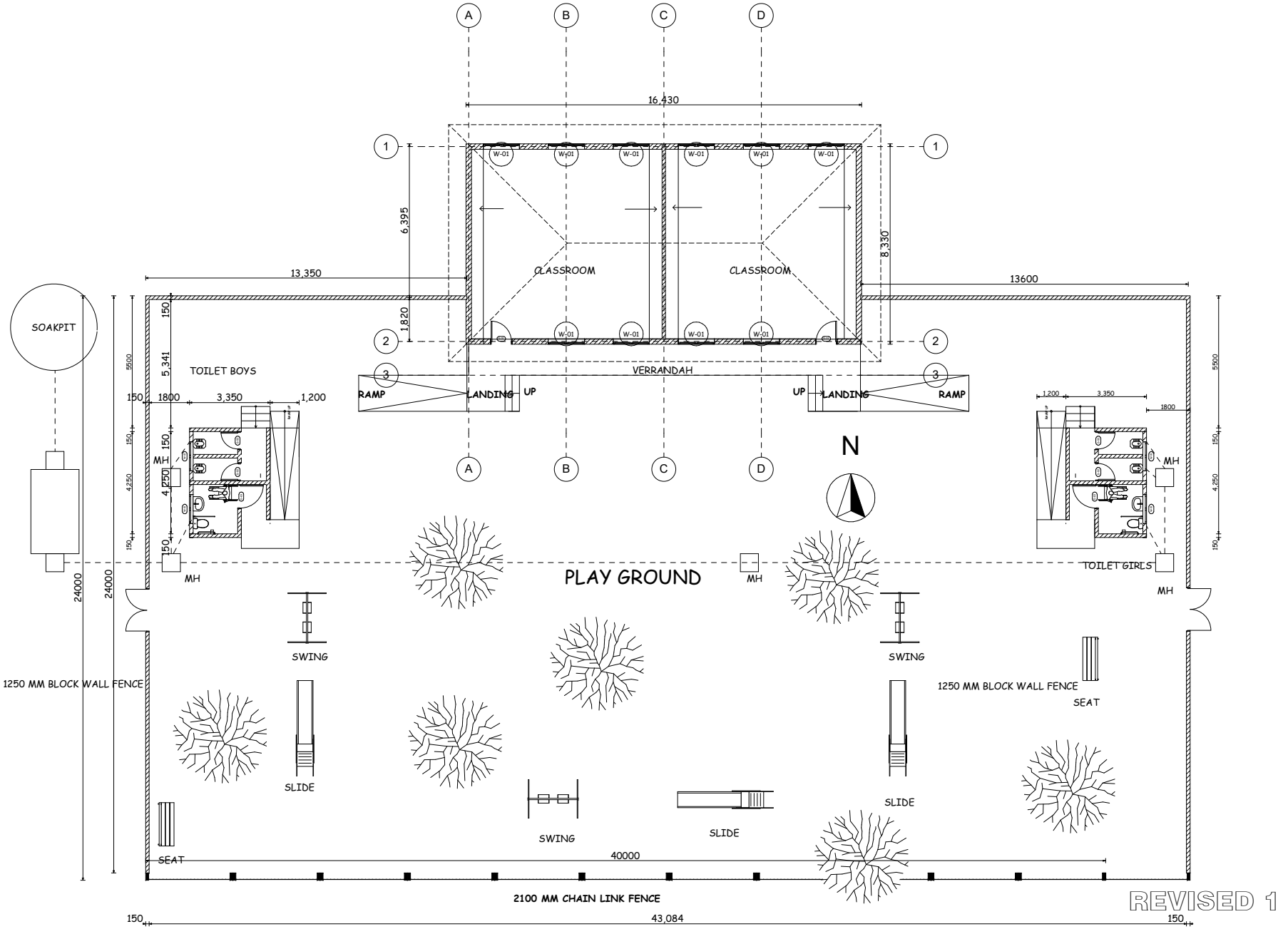
President's Office, Regional Administration
and Local Government.
Government City-Mtumba,
TAMISEMI Street,
P.O. Box 1923,
41185 DODOMA

JANUARY, 2023

PRE PRIMARY SCHOOL DRAWINGS

ARCHITECTURAL DRAWINGS

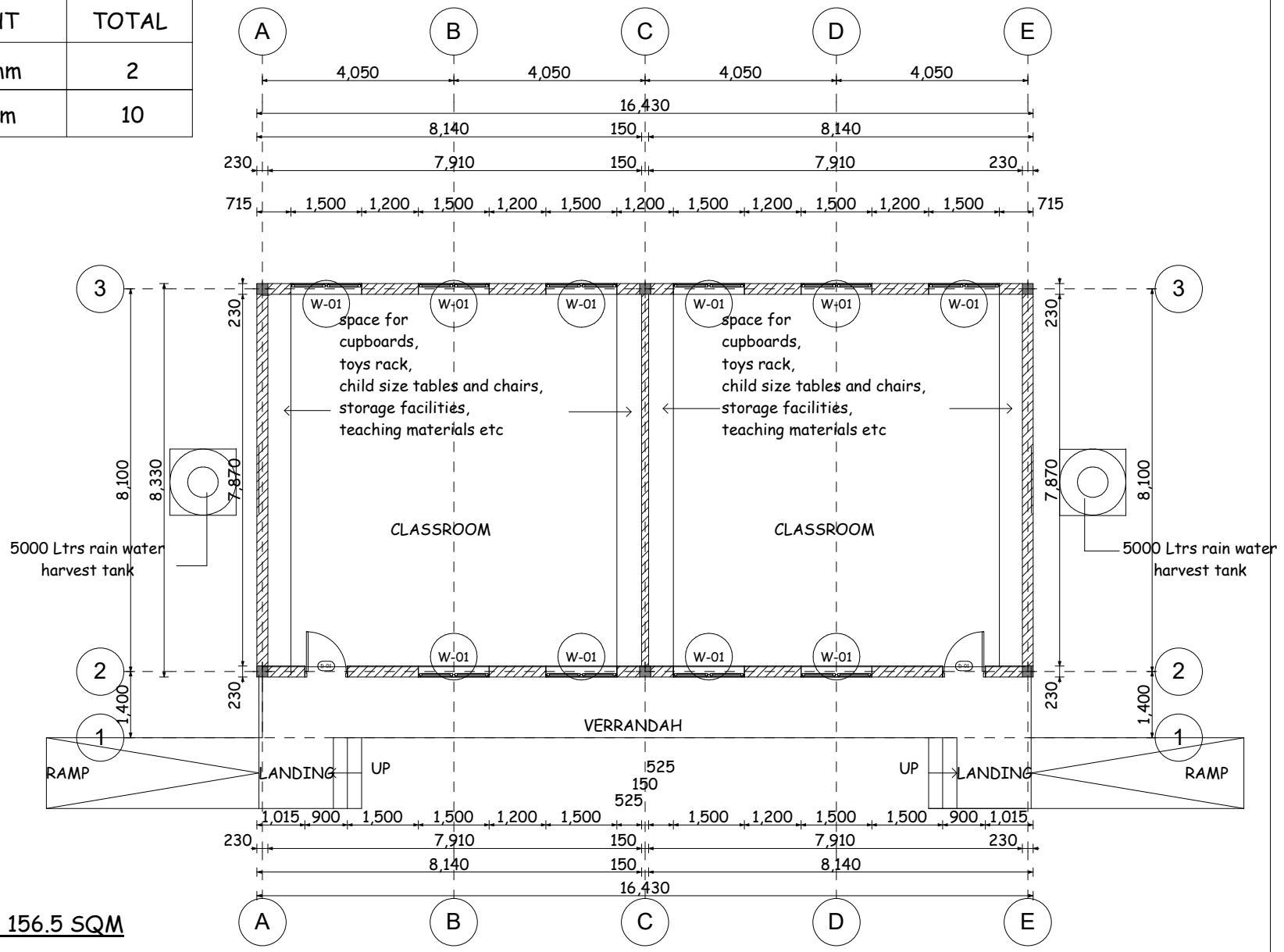
PRE PRIMARY SCHOOL CLASSROOMS - HIPPED



REVISED 1

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLLABORATION WITH* PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT	PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS PROPOSED STANDARD DESIGN FOR PRE PRIMARY SCHOOL CLASSROOMS	DRAWING TITLE: SITE PLAN - HIPPED DRAWING NO: ARC/PPS/01	Date: December, 2022 Drawn by: IAS Checked by: AAL Scale: To fit

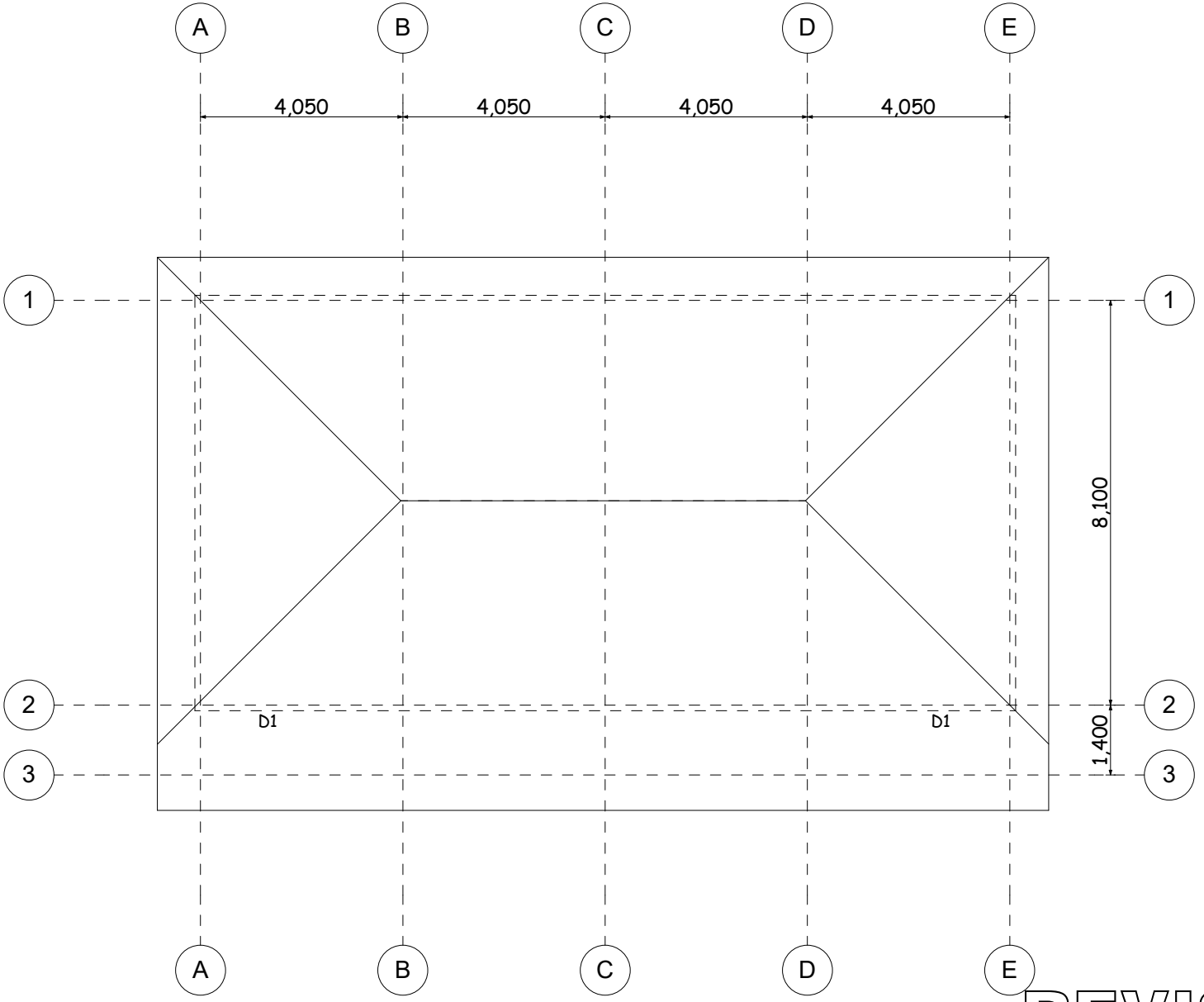
DOOR & WINDOW SCHEDULE			
NO.	WIDTH	HEIGHT	TOTAL
D1	900mm	2,500mm	2
W-01	1,500mm	2,000mm	10



TOTAL FLOOR AREA = 156.5 SQM

REVISED 1

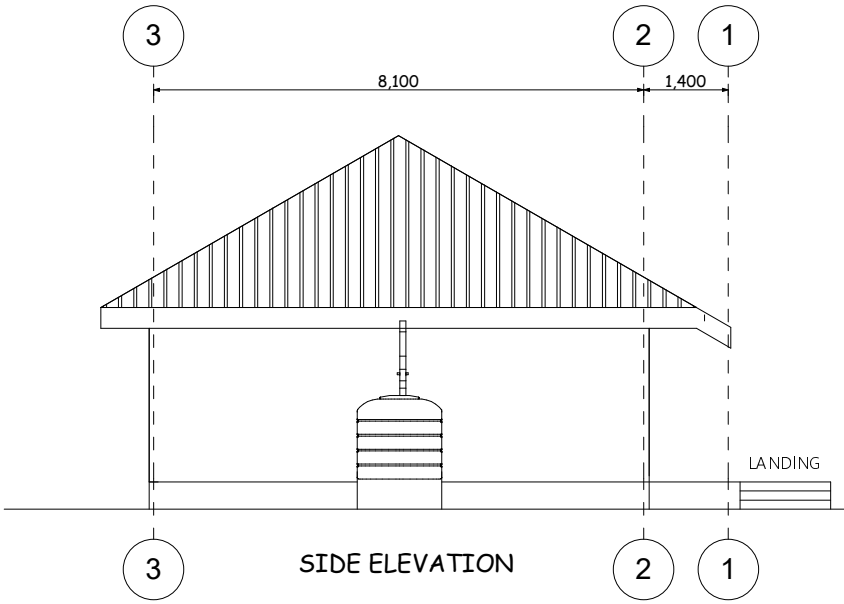
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLLABORATION WITH* PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT	PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS PROPOSED STANDARD DESIGN FOR PRE PRIMARY SCHOOL CLASSROOMS	DRAWING TITLE: FLOOR PLAN - AREA PRONE TO EARTHQUAKE DRAWING NO: ARC/PPS/02	Date: December, 2022 Drawn by: IAS Checked by: AAL Scale: To fit

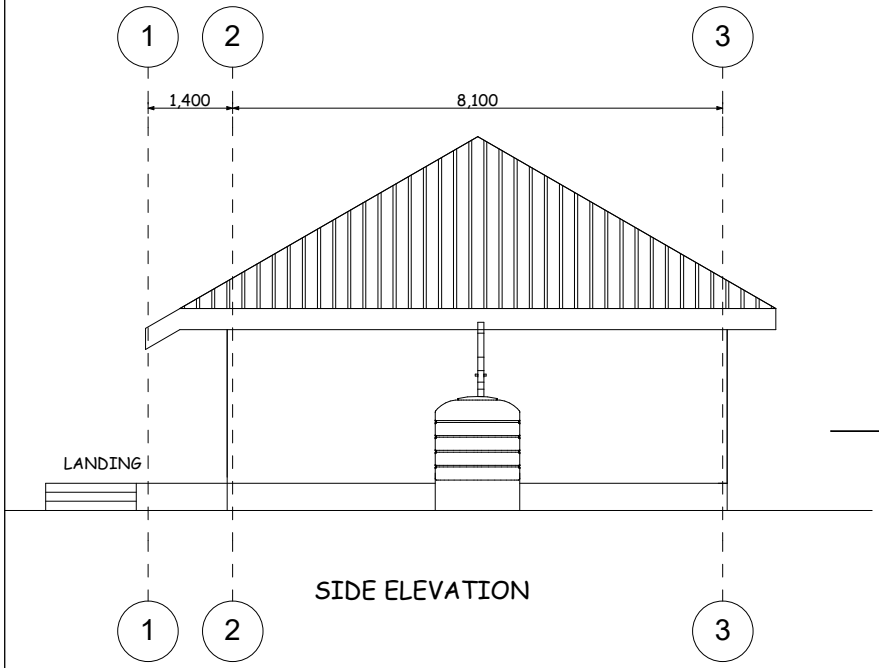


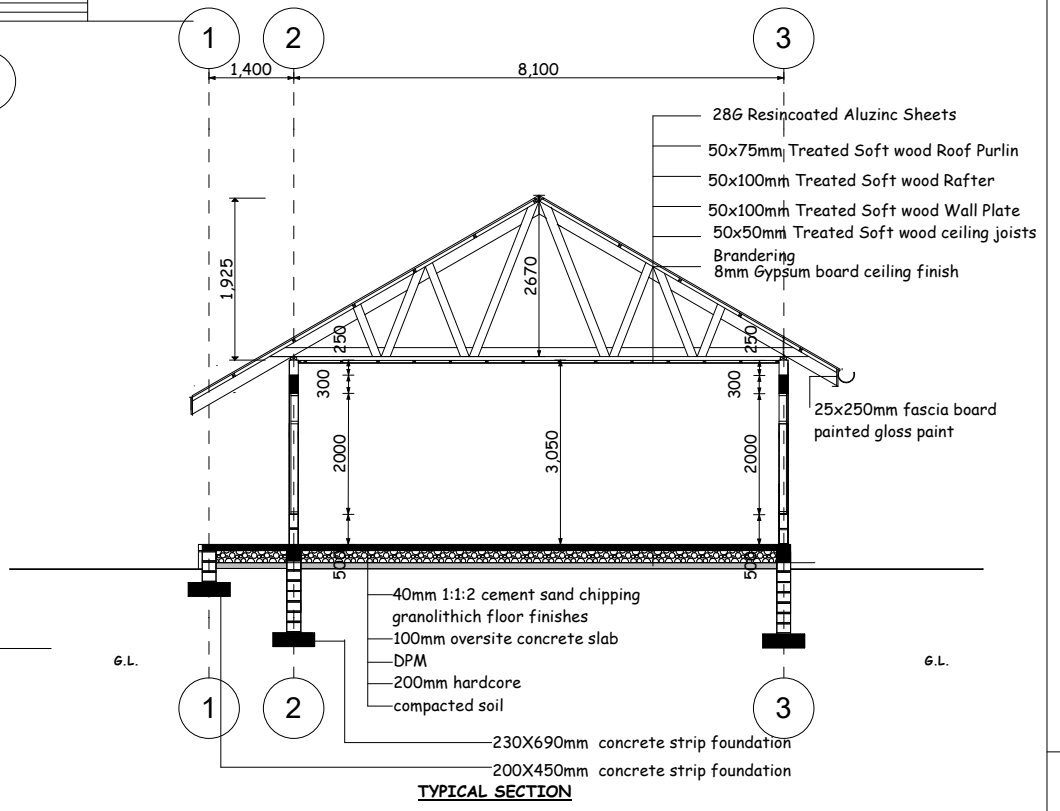
REVISED 1

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY ***IN COLLABORATION WITH*** **PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**	**PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS** PROPOSED STANDARD DESIGN FOR PRE PRIMARY SCHOOL CLASSROOMS	DRAWING TITLE: ROOF PLAN - AREA PRONE TO EARTHQUAKE DRAWING NO: ARC/PPS/03	Date: December 2022 Drawn by: IAS Checked by: AAL Scale: To fit

REVISED 1

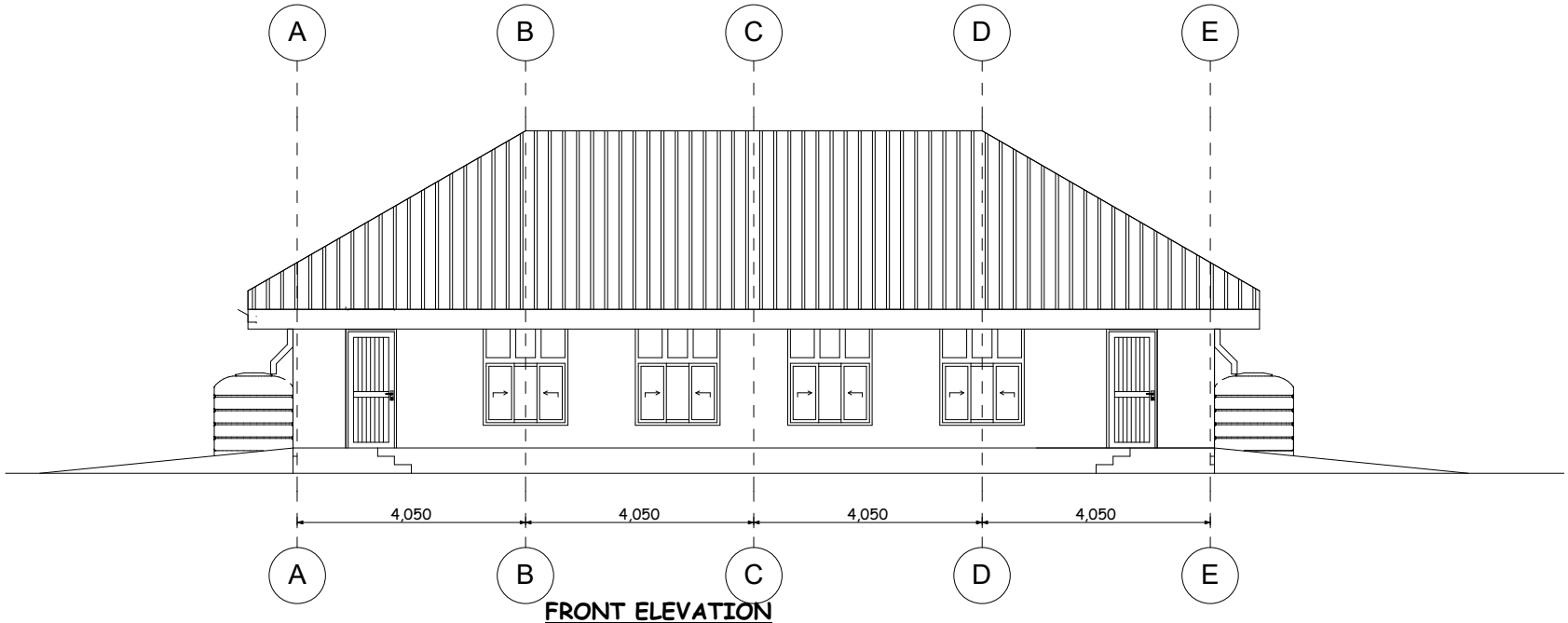




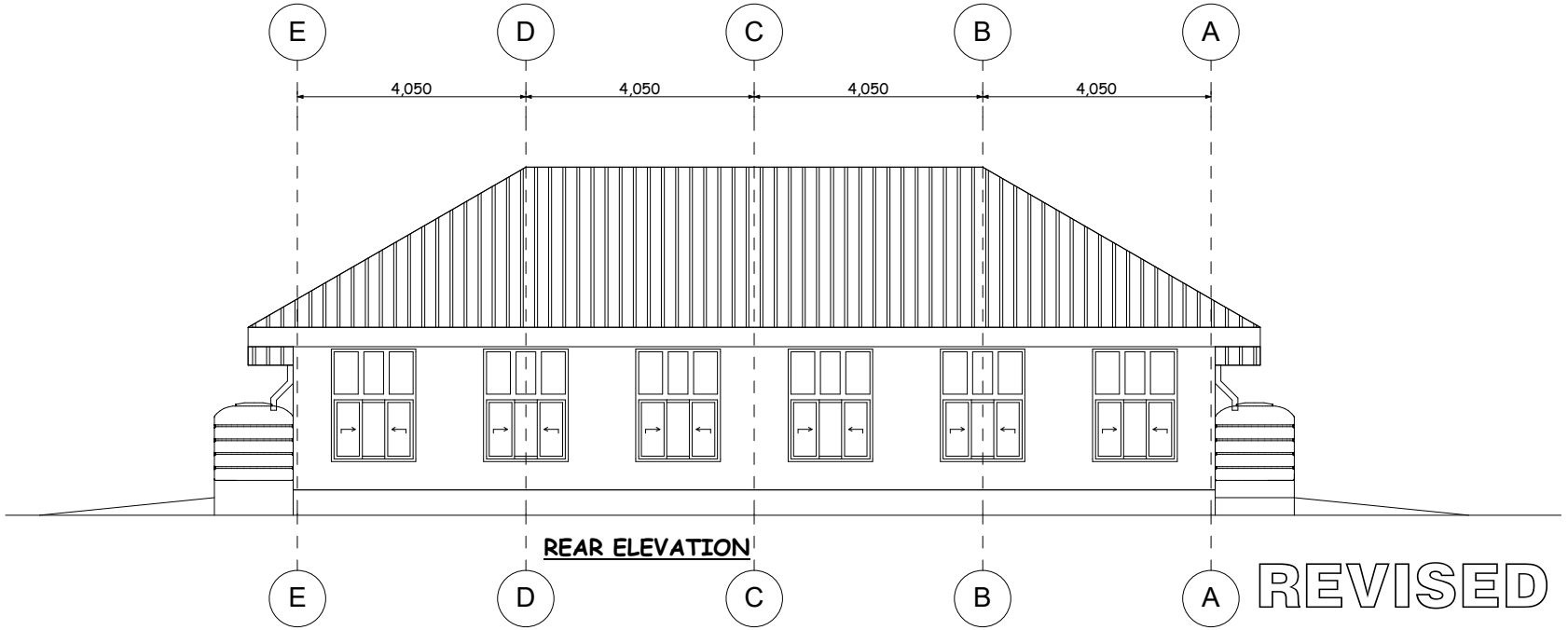


TYPICAL SECTION

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLLABORATION WITH* **PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**	**PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS** PROPOSED STANDARD DESIGN FOR PRE PRIMARY SCHOOL CLASSROOMS	DRAWING TITLE: **SIDE ELEVATIONS AND SECTION** **AREA PRONE TO EARTHQUAKE** DRAWING NO: ARC/PPS/04	Date: December, 2022 Drawn by: IAS Checked by: AAL Scale: To fit



FRONT ELEVATION



REAR ELEVATION

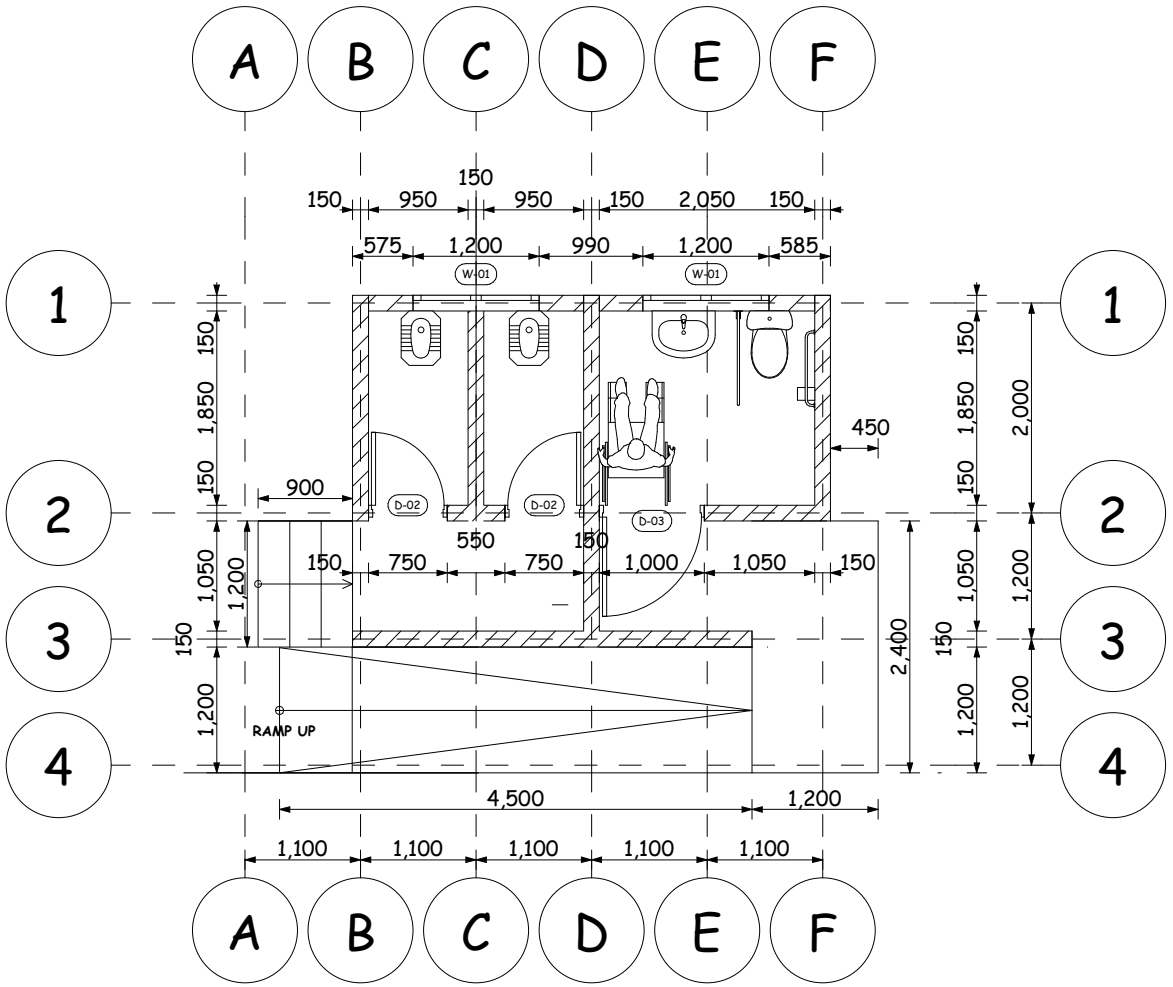
REVISED 1

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLABORATION WITH* **PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**	**PROVISIO OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS** PROPOSED STANDARD DESIGN FOR PRE PRIMARY SCHOOL CLASSROOMS	DRAWING TITLE: **FRONT AND REAR ELEVATIONS AREA PRONE TO EARTHQUAKE** DRAWING NO: ARC/PPS/05	Date: December, 2022 Drawn by: IAS Checked by: AAL Scale: To fit

TOILET BLOCKS - PIPED WATER AREA FOR PRE PRIMARY (2 STANCES) WITH FACILITY FOR DISABLED

WINDOW SCHEDULE		
WINDOW TYPE	HEIGHT X WIDTH	QUANTITY
W-01	750 X 1200	02

DOOR SCHEDULE		
DOOR TYPE	HEIGHT X WIDTH	QUANTITY
D-02	2100 X 750	02
D-03	2100 X 1000	01

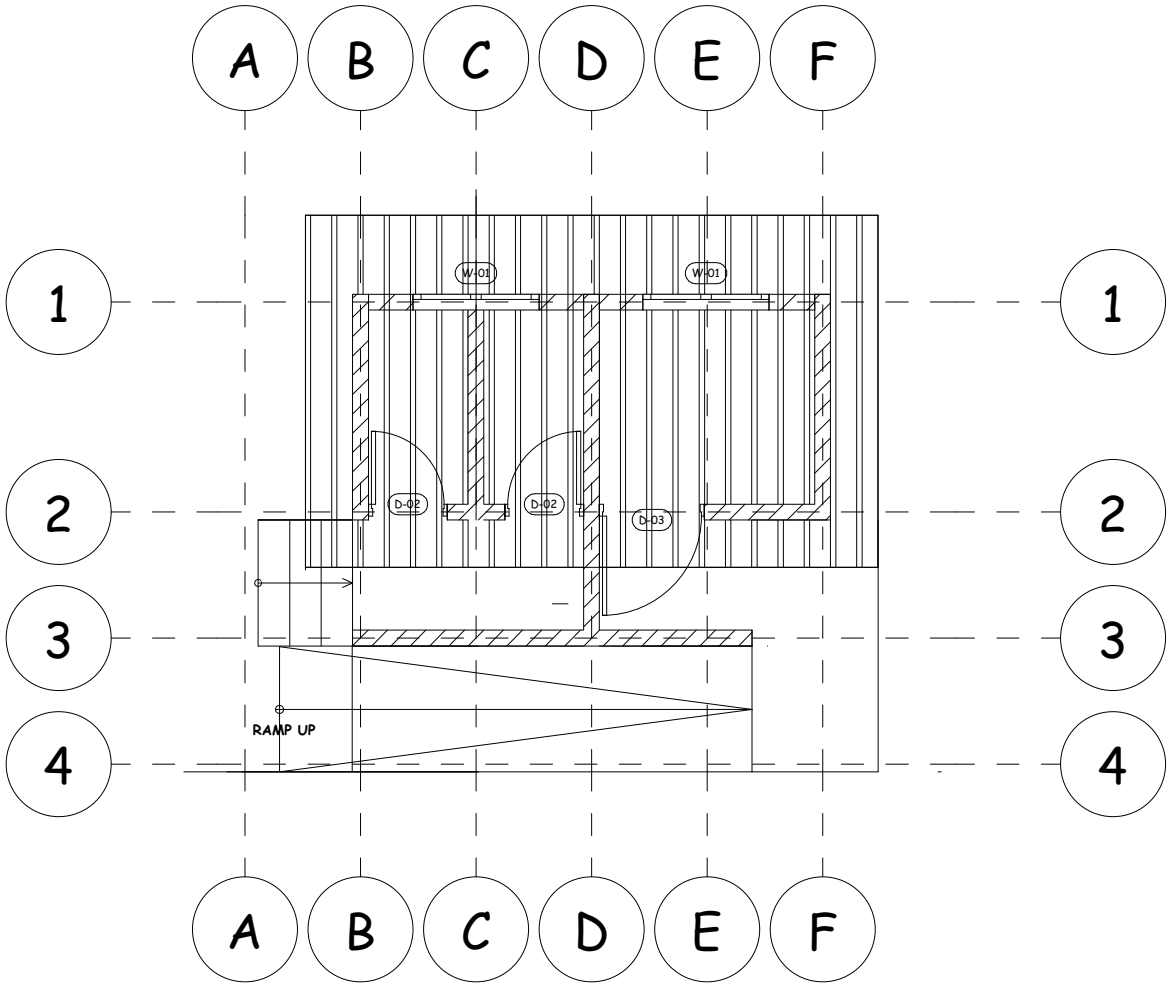


MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
IN COLLABORATION WITH
PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

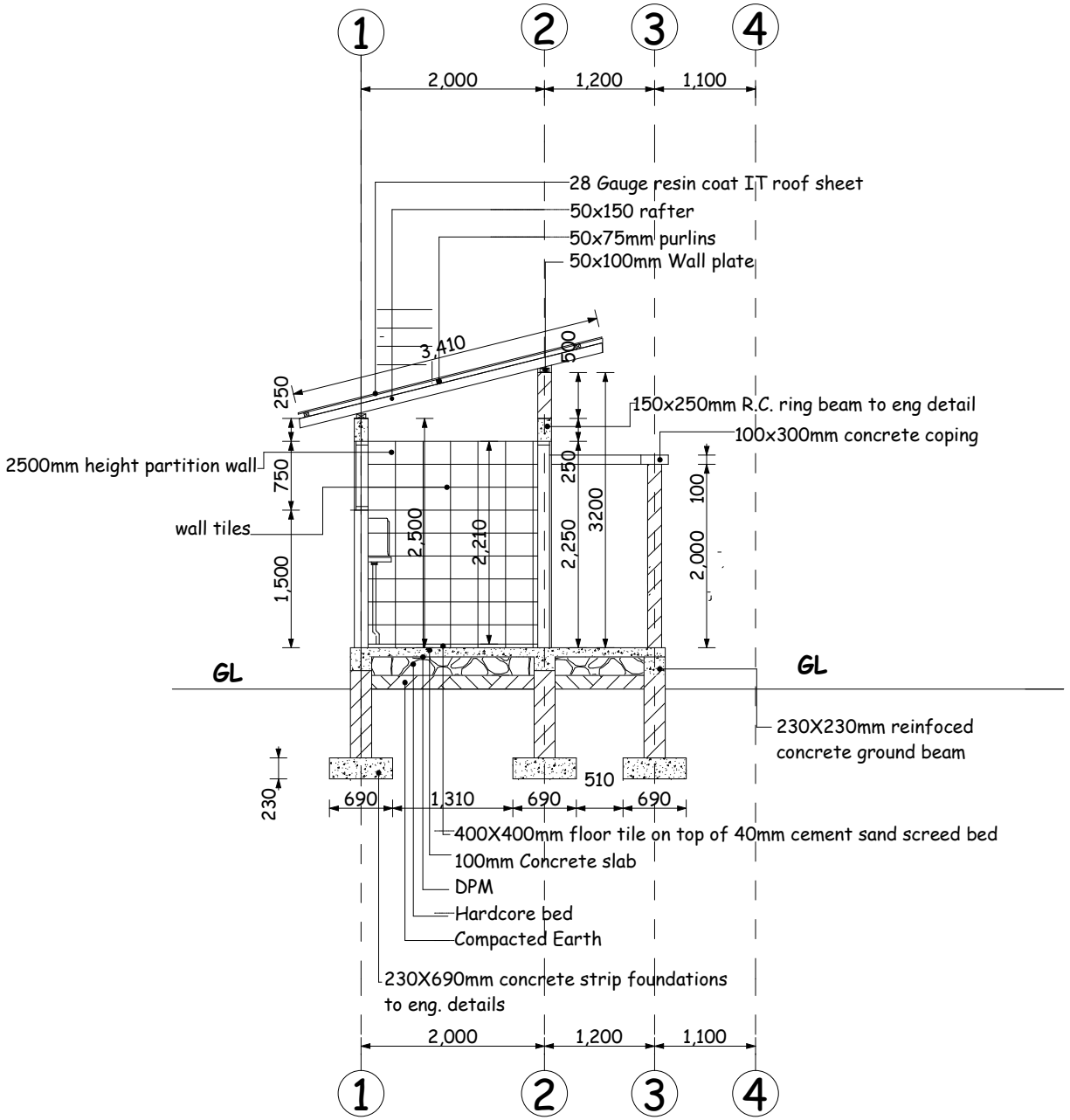
PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

DRAWING TITLE
TOILET FOR PRE PRIMARY SCHOOL - FLOOR PLAN
DRAWING NO. BP/ARC/TLT-WG80/01

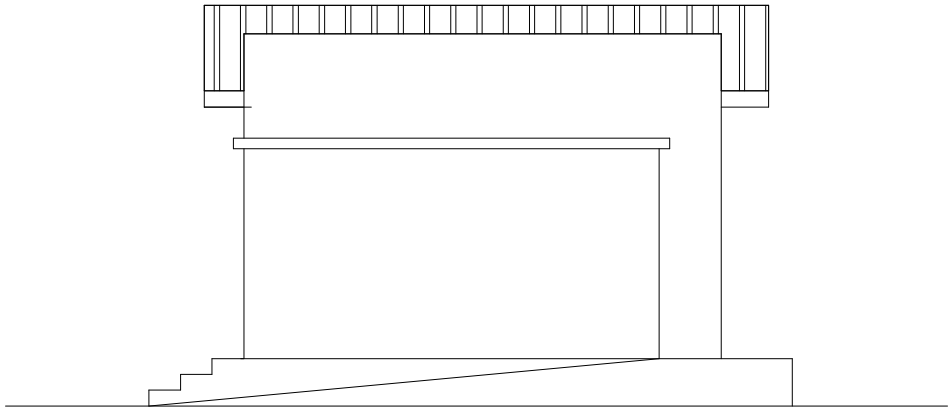
DRAWN BY J.R
CHECKED BY I.A.S.
SCALE 1:200
DEC,2022



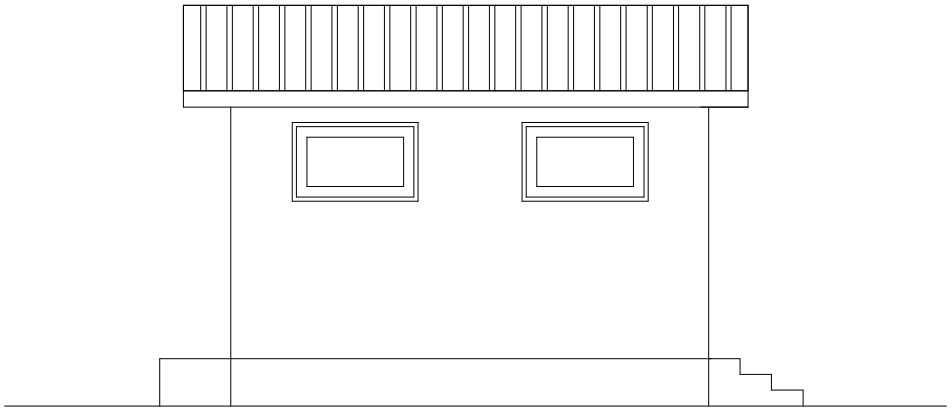
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLLABORATION WITH* **PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**	**PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS**	DRAWING TITLE **TOILET FOR PRE PRIMARY SCHOOL - ROOF PLAN** **DRAWING NO. BP/ARC/TLT-WG80/01**	DRAWN BY J.R CHECKED BY I.A.S. SCALE 1:200 DEC,2022



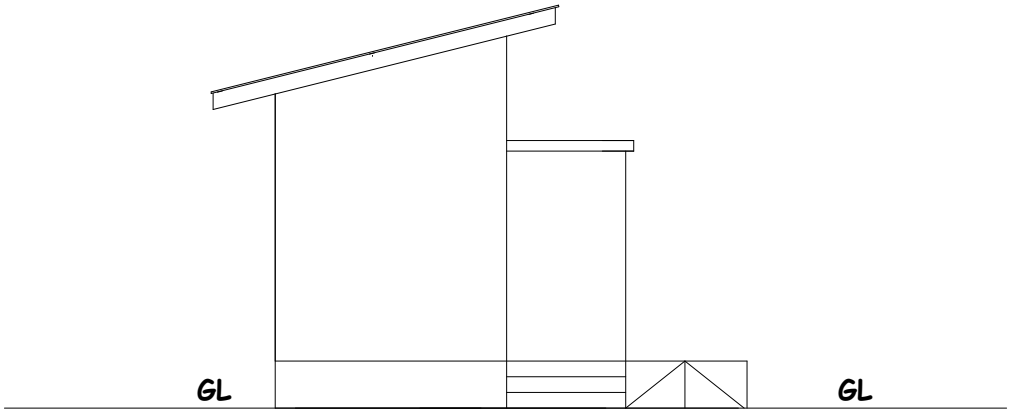
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLLABORATION WITH* **PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**	**PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS**	DRAWING TITLE TOILET FOR PRE PRIMARY SCHOOL - TYPICAL SECTION DRAWING NO. BP/ARC/TLT-WG80/01	DRAWN BY J.R CHECKED BY I.A.S. SCALE 1:200 DEC,2022



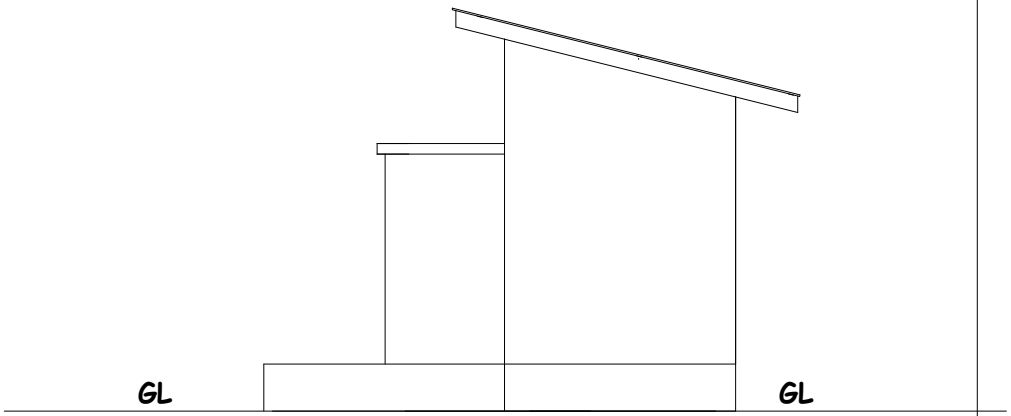
FRONT ELEVATION



REAR ELEVATION



SIDE ELEVATION



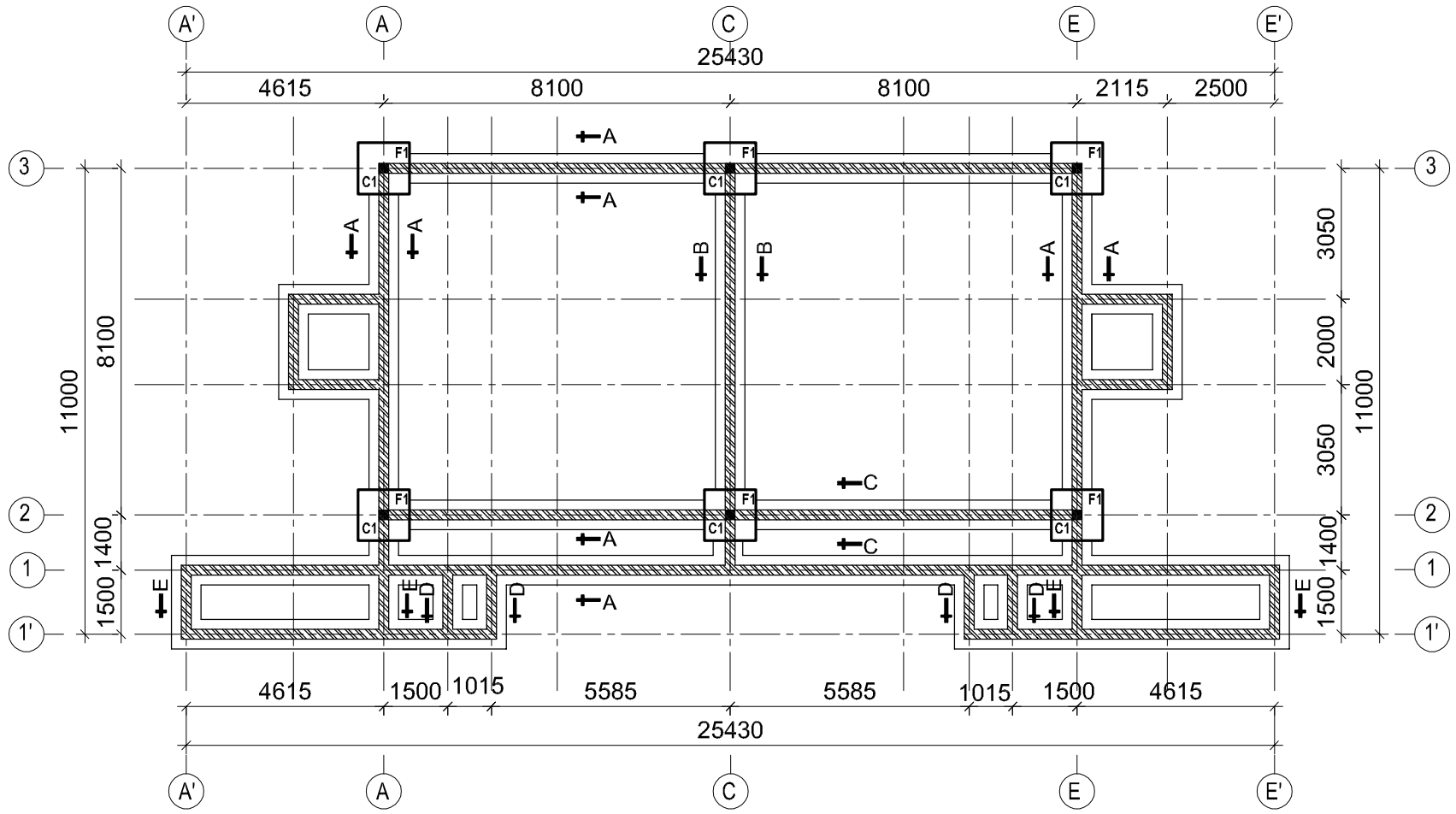
SIDE ELEVATION

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY *IN COLLABORATION WITH* PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT	PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS	DRAWING TITLE TOILET FOR PRE PRIMARY SCHOOL - ELEVATIONS DRAWING NO. BP/ARC/TLT-WG80/01	DRAWN BY J.R CHECKED BY I.A.S. SCALE 1:200 DEC,2022

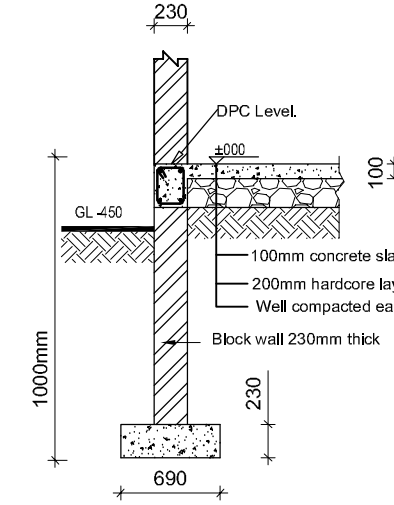
STRUCTURAL DRAWINGS

FOR

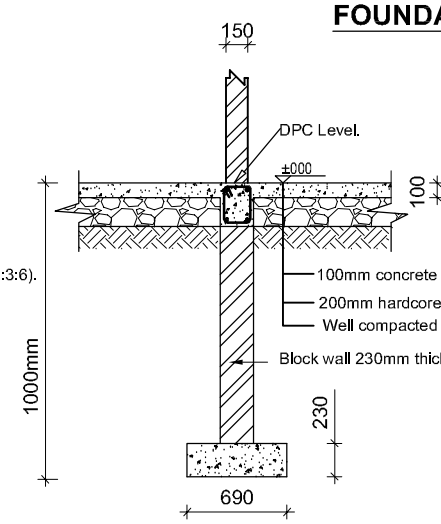
PRE-PRIMARY CLASSROOM BLOCK TYPE A - 2 ROOMS - HIPPED
AREA PRONE TO EARTHQUAKE



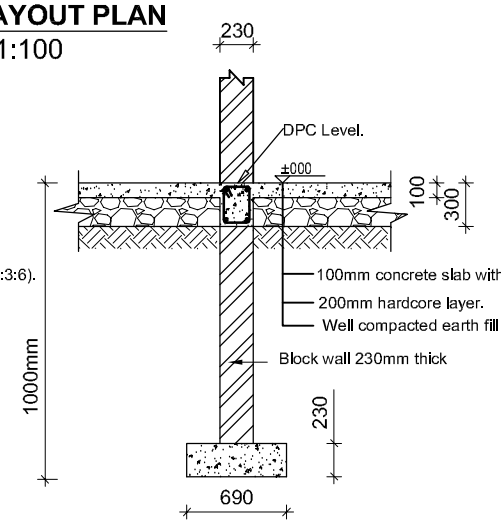
FOUNDATION LAYOUT PLAN
Scale 1:100



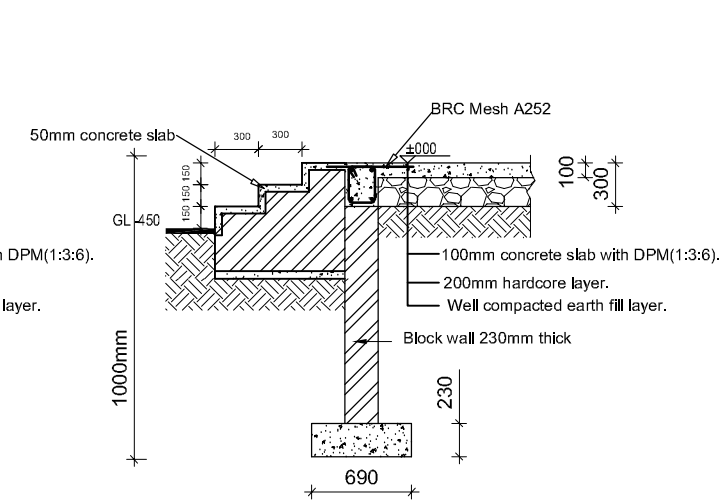
EXTERIOR WALL FOUNDATION SECTION A-A.
Scale 1:50



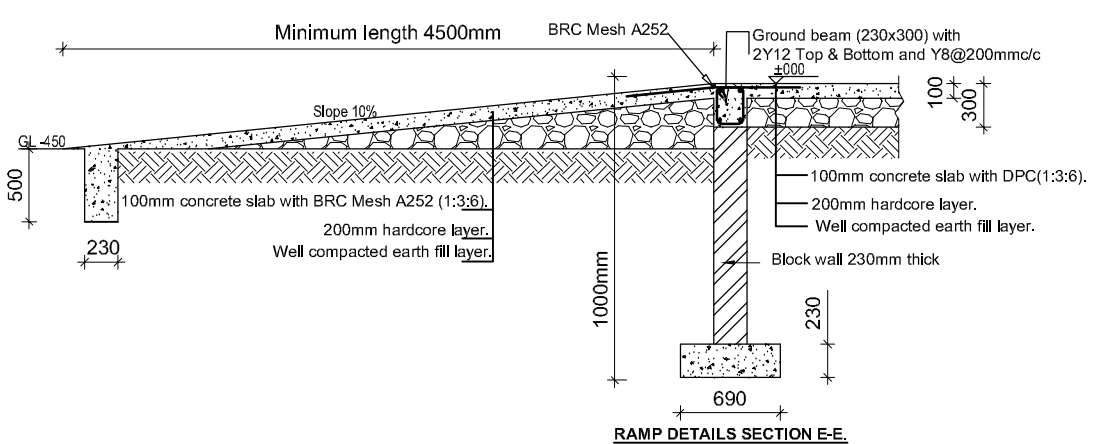
INTERIOR WALL FOUNDATION SECTION B-B.
Scale 1:50



INTERIOR WALL FOUNDATION SECTION C-C.
Scale 1:50



EXTERIOR WALL FOUNDATION SECTION D-D.
Scale 1:50



RAMP DETAILS SECTION E-E.
Scale 1:50

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
6. Structural Engineer shall be furnished with copies of the manufacturers certificates of tests for the steel reinforcement to be used.
7. Cement for works shall comply with BS12 and shall be "Ordinary Portland Cement"
8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be dean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:

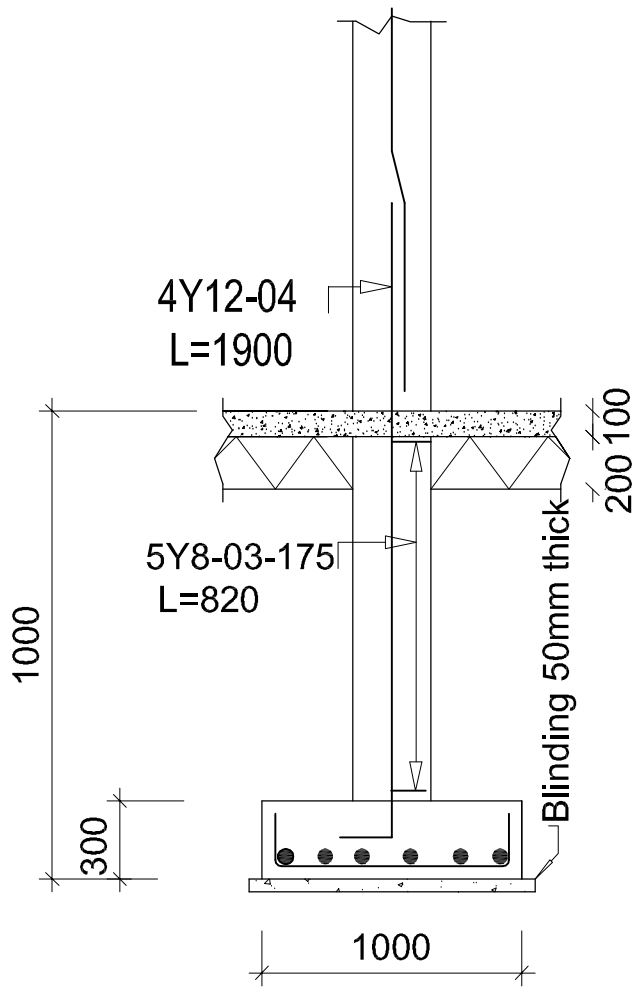
PRE-PRIMARY - CLASSROOMS BLOCK

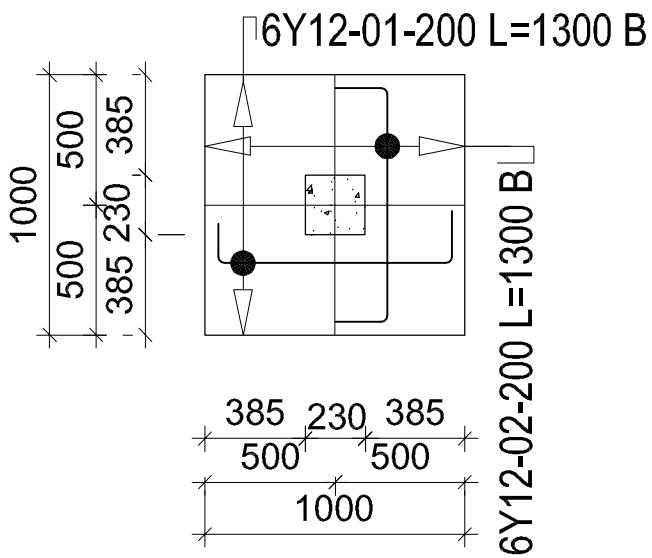
FOUNDATION LAYOUT PLAN

(**REVISED - 1**)

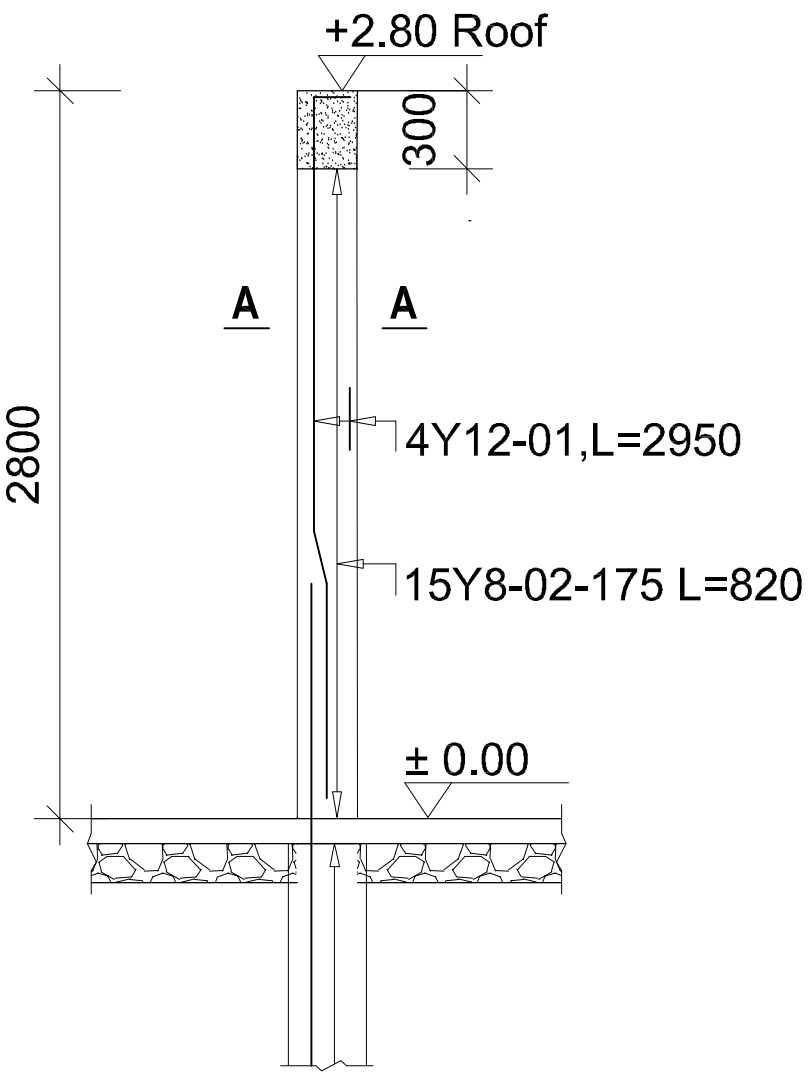
DRAWING USE:
For Building permit: ☐
For Construction: ☑

Drawn by:	J.M.S
Date: 2022	Scale:
Drawing No:STR.CR	Sheet: 01/08

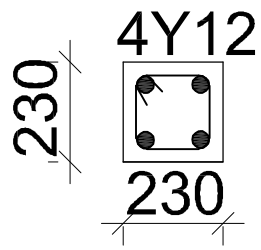




FOOTING F1 (1000x1000x300) 6Nos.
Scale 1:50



COLUMN C1(230 x 230), 6Nos
Scale 1:100



Section A - A
Scale 1:50

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
6. Structural Engineer shall be furnished with copies of the manufacturers certificates of tests for the steel reinforcement to be used.
7. Cement for works shall comply with BS12 and shall be "Ordinary Portland Cement"
8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:
PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

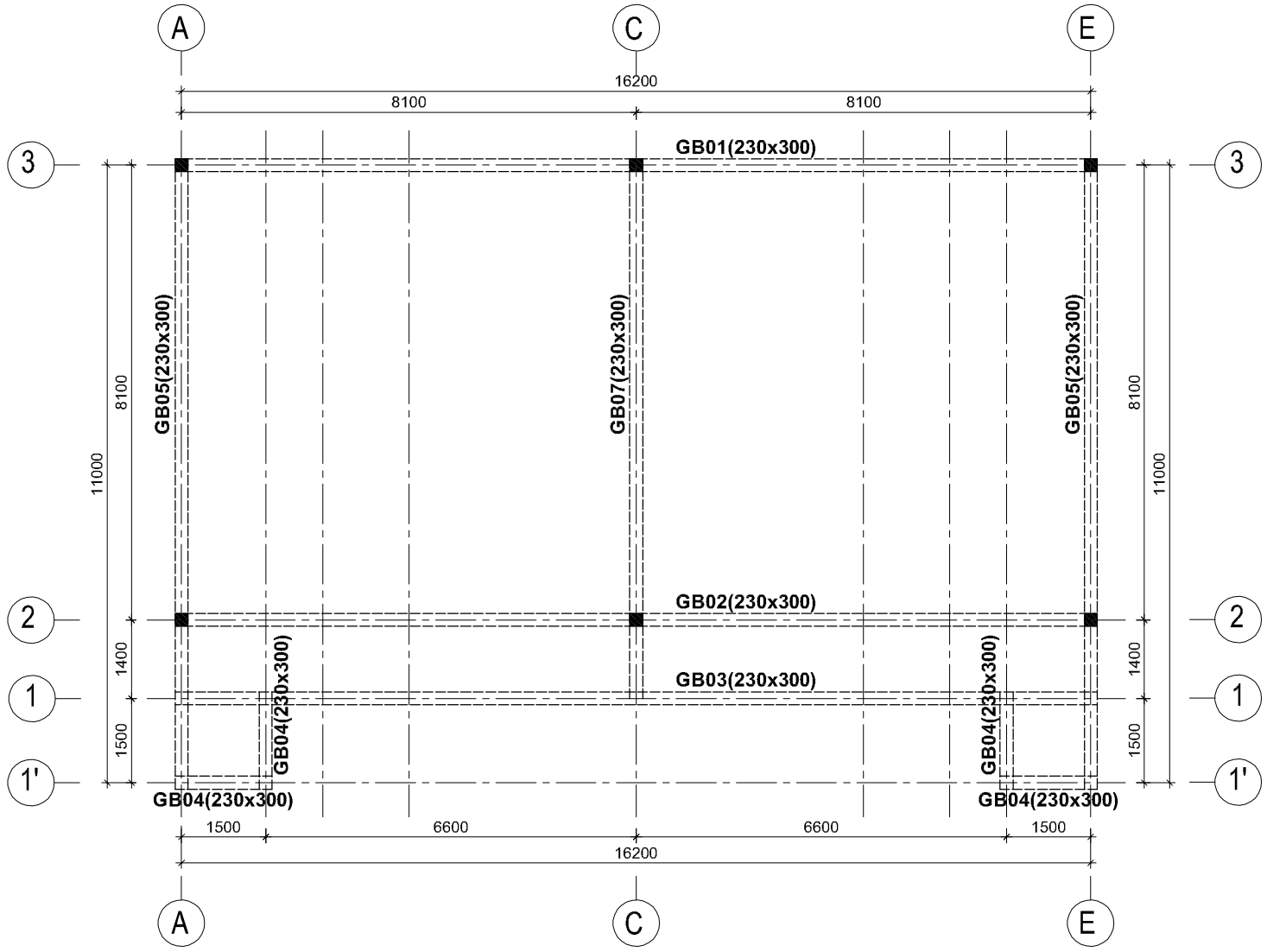
Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:
PRE-PRIMARY - CLASSROOMS BLOCK

COLUMN FOOTINGS AND COLUMNS DETAILS
(**REVISED - 1**)

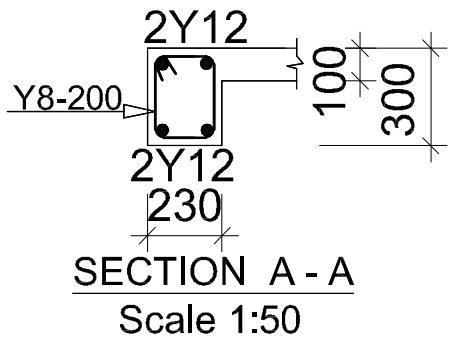
DRAWING USE:
For Building permit: ☐
For Construction: ☑

Drawn by:	J.M.S
Date: 2022	Scale:
Drawing No:STR.CR	Sheet: 02/08



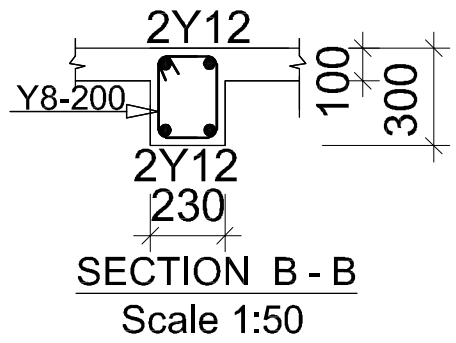
GROUND FLOOR BEAMS LAYOUT PLAN

Scale 1:100



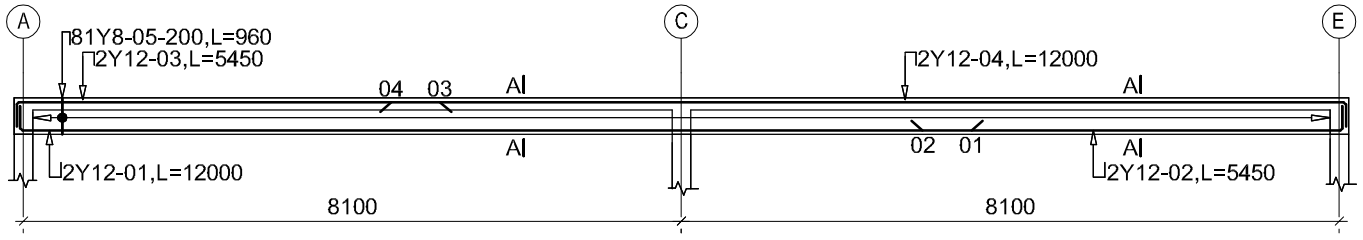
SECTION A - A

Scale 1:50



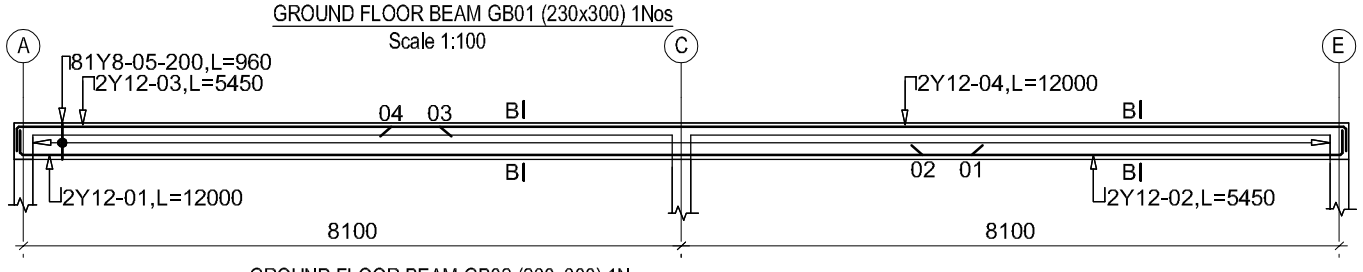
SECTION B - B

Scale 1:50



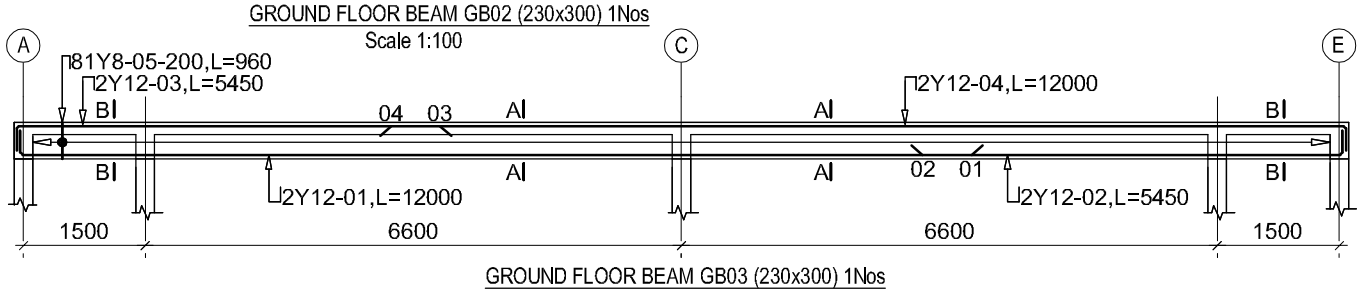
GROUND FLOOR BEAM GB01 (230x300) 1Nos

Scale 1:100



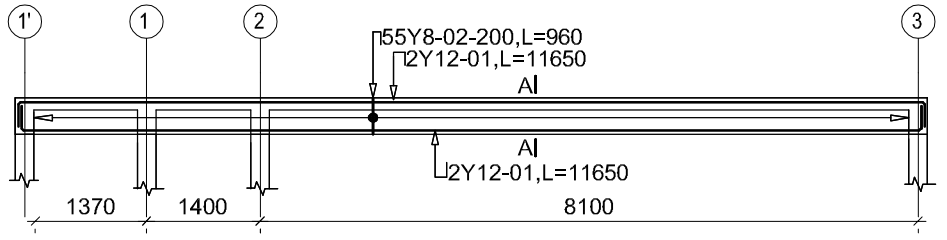
GROUND FLOOR BEAM GB02 (230x300) 1Nos

Scale 1:100



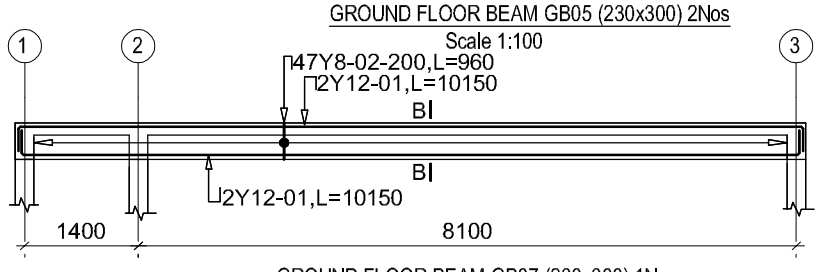
GROUND FLOOR BEAM GB03 (230x300) 1Nos

Scale 1:100



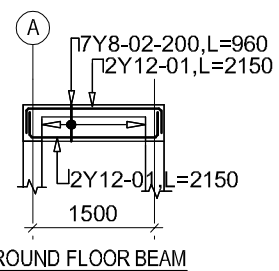
GROUND FLOOR BEAM GB05 (230x300) 2Nos

Scale 1:100



GROUND FLOOR BEAM GB07 (230x300) 1Nos

Scale 1:100



GROUND FLOOR BEAM
GB04 (230x300) 4Nos Scale 1:100

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
6. Structural Engineer shall be furnished with copies of the manufacturers certificates of tests for the steel reinforcement to be used.
7. Cement for works shall comply with BS12 and shall be "Ordinary Portland Cement"
8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

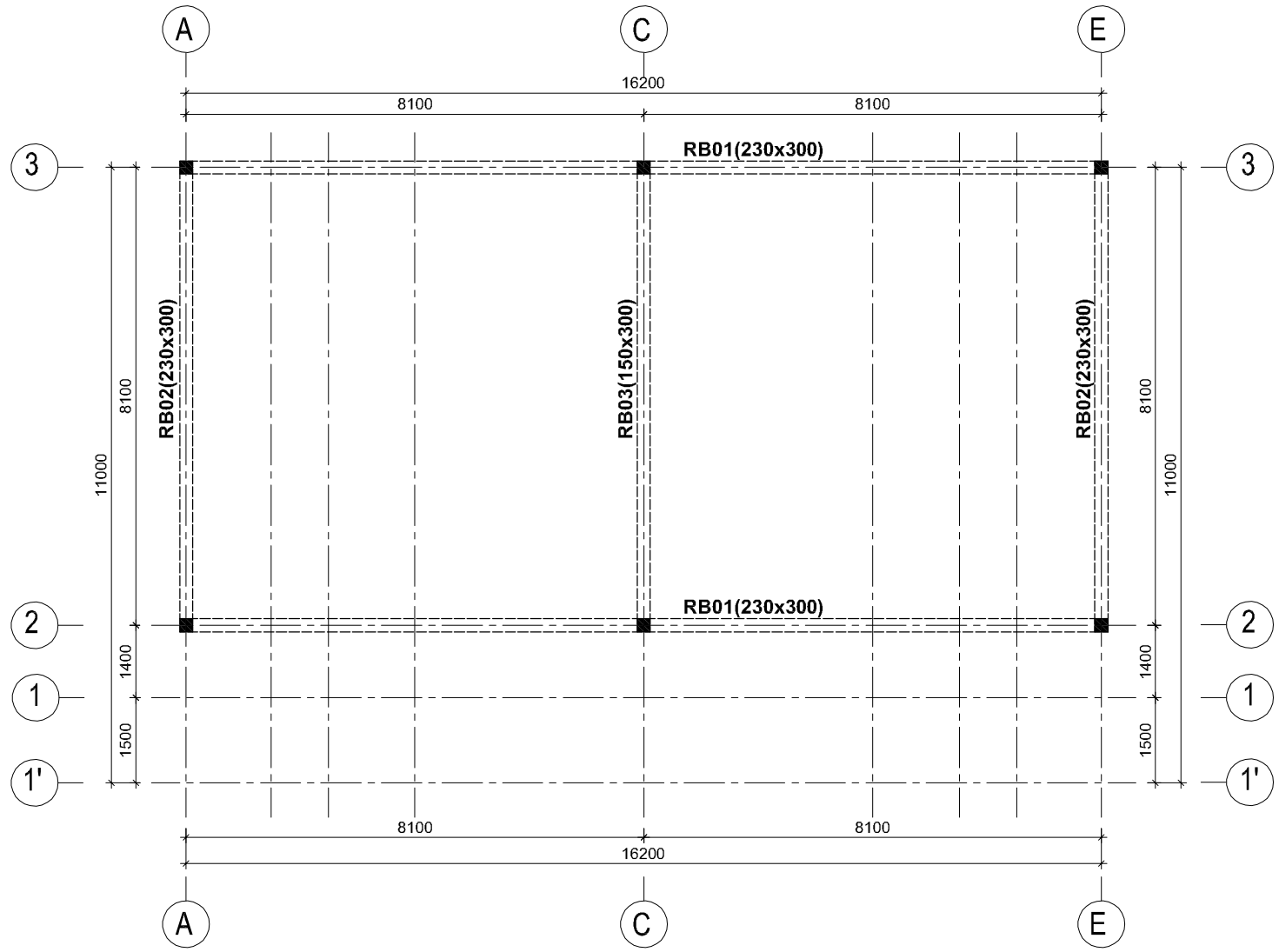
DRAWING TITLE:

PRE-PRIMARY - CLASSROOMS BLOCK

GROUND FLOOR BEAMS LAYOUT PLAN AND SECTION DETAILS (**REVISED - 1**)

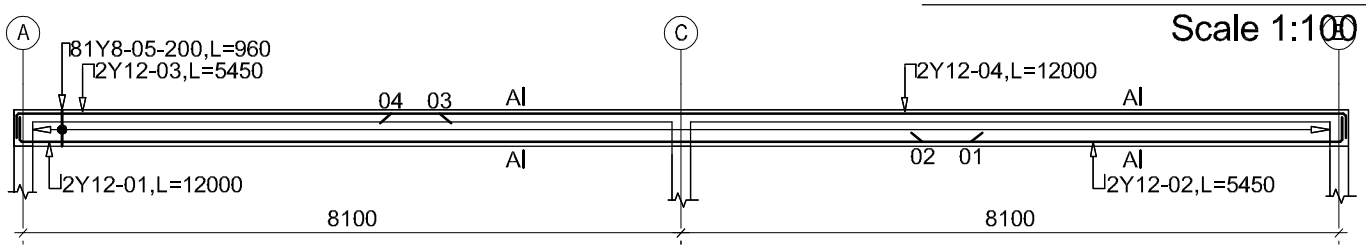
DRAWING USE:
For Building permit: ☐
For Construction: ☑

Drawn by:	J.M.S
Date: 2022	Scale:
Drawing No:STR.CR	Sheet: 03/08



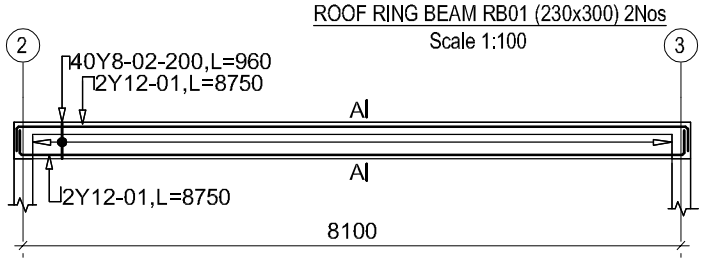
ROOF RING BEAMS LAYOUT PLAN

Scale 1:100



ROOF RING BEAM RB01 (230x300) 2Nos

Scale 1:100



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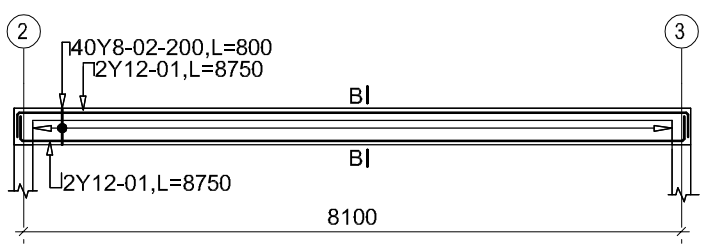
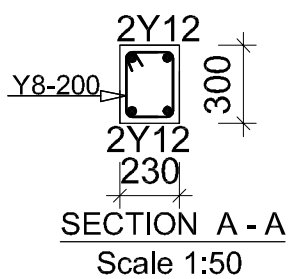
Scale 1:100



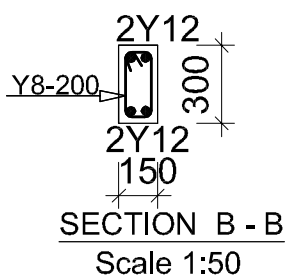
ROOF RING BEAM RB03 (150x300) 1Nos

Scale 1:100



SECTION A - A

Scale 1:50



SECTION B - B

Scale 1:50

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
6. Structural Engineer shall be furnished with copies of the manufacturers certificates of tests for the steel reinforcement to be used.
7. Cement for works shall comply with BS12 and shall be "Ordinary Portland Cement"
8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S

Checked by: Eng. N.T.B

Approved by:

DRAWING TITLE:

PRE-PRIMARY - CLASSROOMS BLOCK

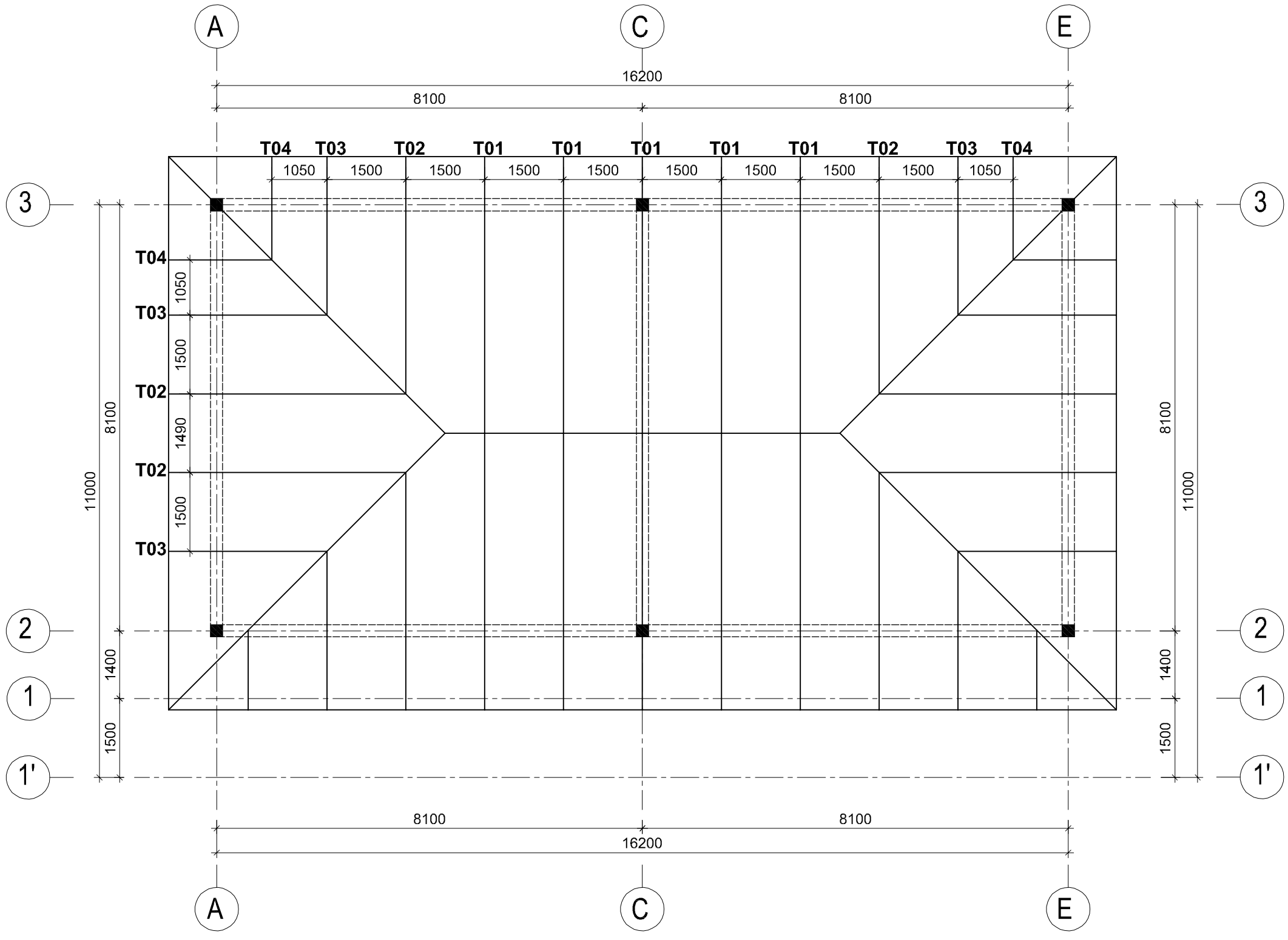
ROOF RINGS BEAMS LAYOUT PLAN AND SECTION DETAILS (**REVISED - 1**)

DRAWING USE:

For Building permit: ☐

For Construction: ☑

Drawn by:	J.M.S
Date: 2022	Scale:
Drawing No:STR.CR	Sheet: 04/08



ROOF TRUSS LAYOUT PLAN

Scale 1:100

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
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8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:

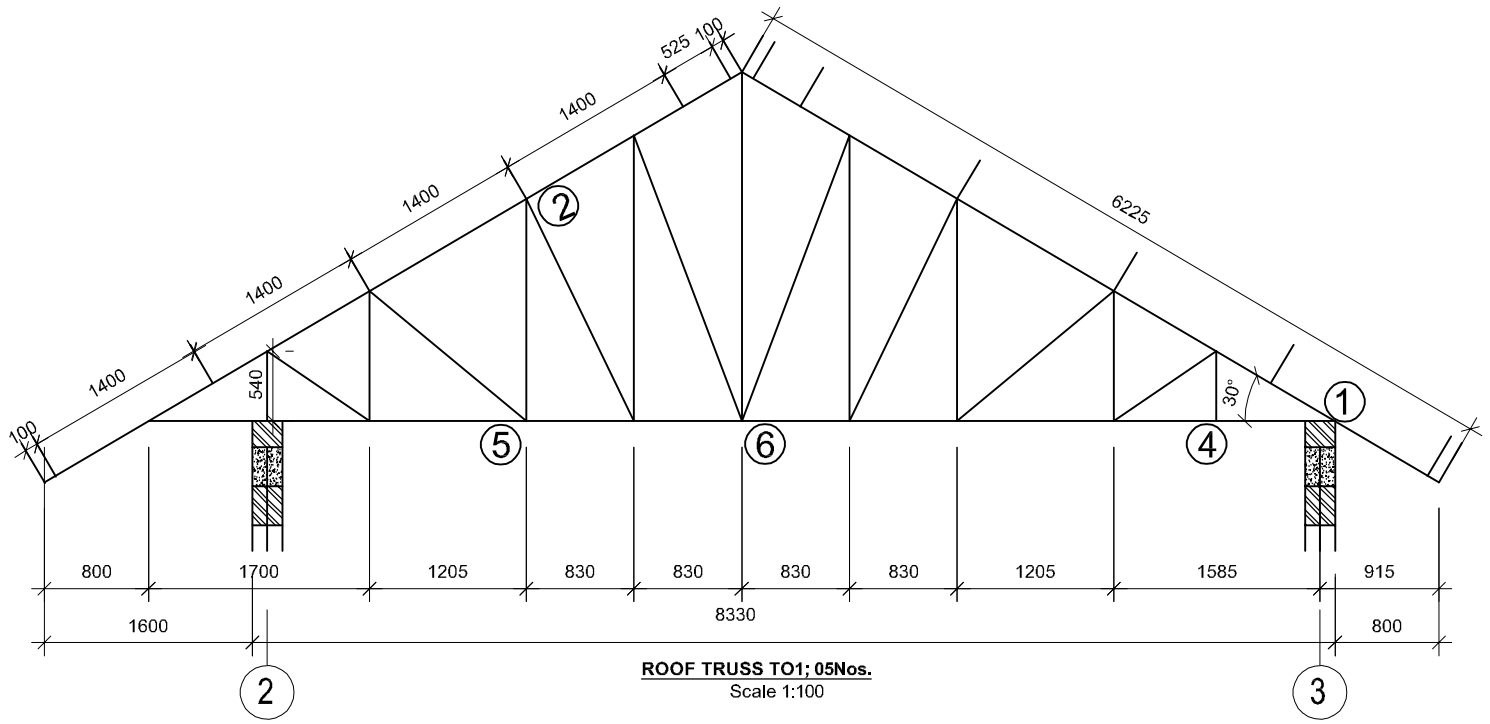
PRE-PRIMARY - CLASSROOMS BLOCK

ROOF TRUSS LAYOUT PLAN

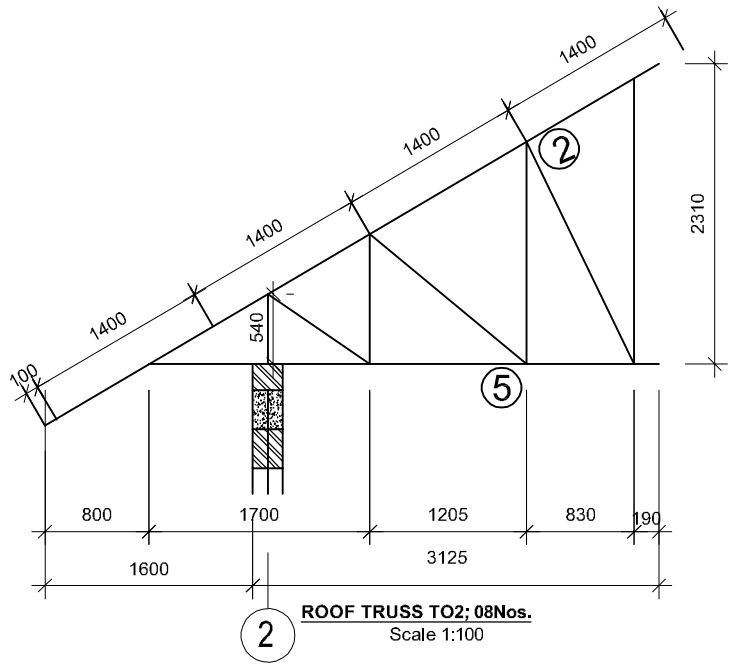
(**REVISED - 1**)

DRAWING USE:
For Building permit: ☐
For Construction: ☑

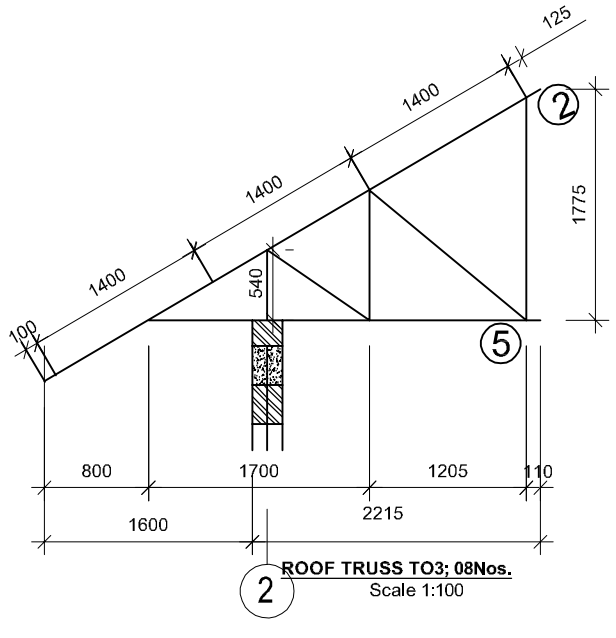
Drawn by:	J.M.S
Date: 2022	Scale:
Drawing No:STR.CR	Sheet: 05/08



ROOF TRUSS TO1; 05Nos.
Scale 1:100



ROOF TRUSS TO2; 08Nos.
Scale 1:100



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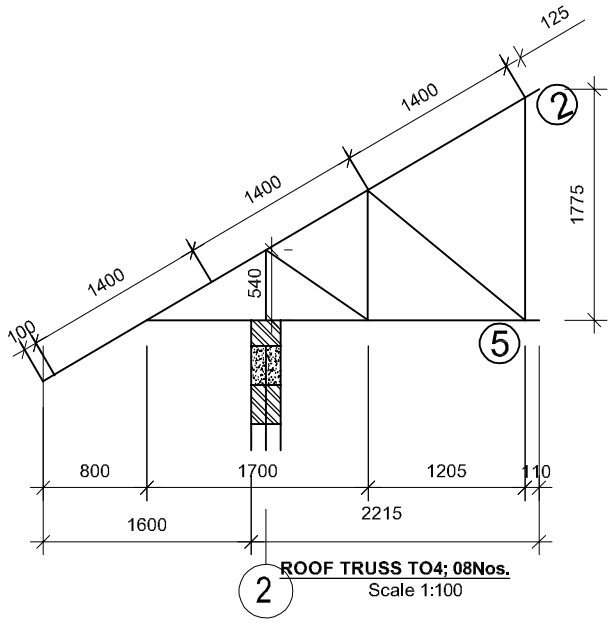
Scale 1:100



ROOF TRUSS TO4; 08Nos.
Scale 1:100

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
6. Structural Engineer shall be furnished with copies of the manufacturers certificates of tests for the steel reinforcement to be used.
7. Cement for works shall comply with BS12 and shall be "Ordinary Portland Cement"
8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:

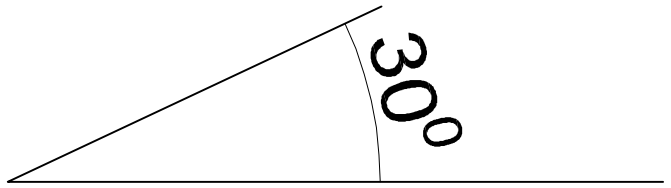
PRE-PRIMARY - CLASSROOMS BLOCK

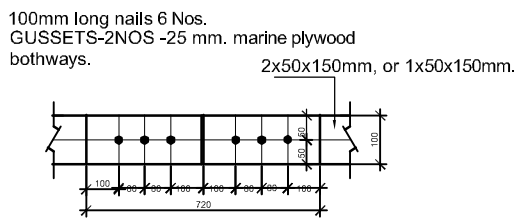
ROOF TRUSS DETAILS

(**REVISED - 1**)

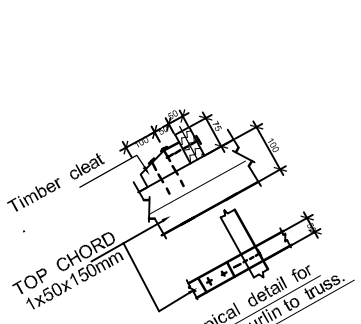
DRAWING USE:
For Building permit: ☐
For Construction: ☑

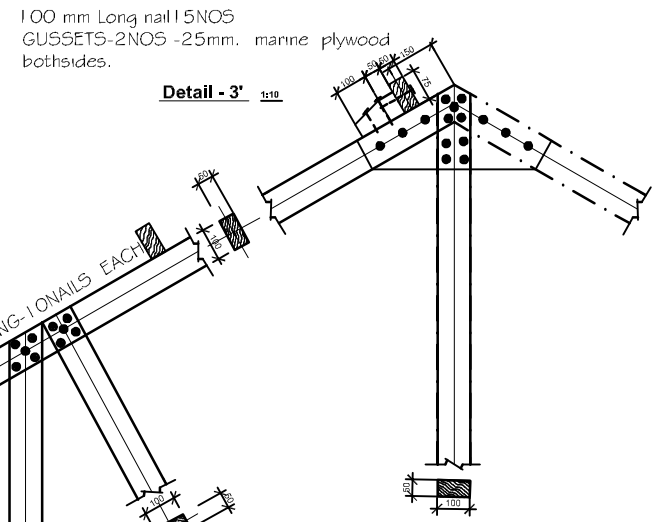
Drawn by: J.M.S
Date: 2022 | Scale:
Drawing No: STR.CR | Sheet: 06/08

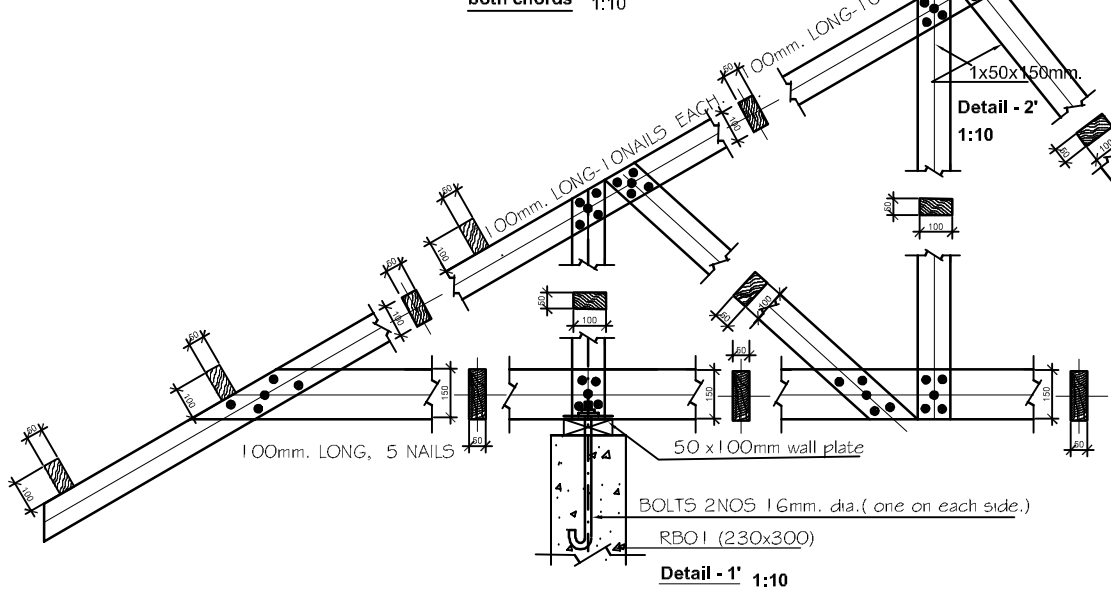


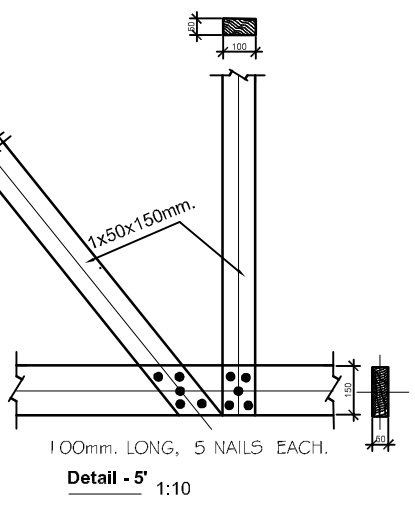


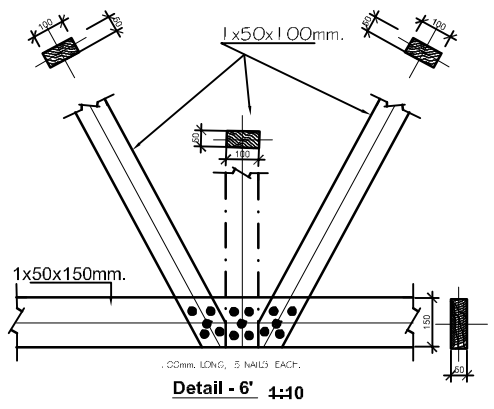
Lengthening joint in both chords 1:10











TYPICAL TRUSS CONNECTIONS DETAIL

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
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5. Bars lap length should be at least 50 times the diameter of the bars lapped.
6. Structural Engineer shall be furnished with copies of the manufacturers certificates of tests for the steel reinforcement to be used.
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8. Clear cover for reinforcement shall be as follows:
   - Slabs 25mm
   - Beams 25mm
   - Columns 25mm
   - Footings.....50mm
7. All concrete work to be done in one operation.
8. All steel fixing, shuttering and concreting works to be done under close supervision of Structural Engineer.
9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:

PRE-PRIMARY - CLASSROOMS BLOCK

ROOF TRUSS CONNECTION DETAILS (**REVISED - 1**)

DRAWING USE:
For Building permit: ☐
For Construction: ☑

Drawn by:	J.M.S
Date: 2022	Scale:
Drawing No:STR.CR	Sheet: 07/08

Page 1/2

Bar Bending Schedule

PROVISION OF PHYSICAL FACILITIES FOR PRIMARY SCHOOLS - PRE-PRIMARY CLASSROOMS BLOCK
(GROUND FLOOR BEAMS)

MEMBER TYPE	NUMBER OF MEMBER	MARK No.	BAR TYPE AND SIZE (mm)	LENGTH OF EACH BAR (mm)	NO.OF BARS	TOTAL LENGTH (m)	SKETCH OF BAR DIMENSIONS IN (mm)	NOTES
GROUND BEAM 1	1	01	Y12	12000	2	24	11750, 250	
GROUND BEAM 1	1	02	Y12	5450	2	10.9	5200, 250	
GROUND BEAM 1	1	03	Y12	5450	2	10.9	5200, 250	
GROUND BEAM 1	1	04	Y12	12000	2	24	11750, 250	
GROUND BEAM 1	1	05	Y8	960	81	77.76	50, 50, 250, 180	
GROUND BEAM 2	1	01	Y12	12000	2	24	11750, 250	
GROUND BEAM 2	1	02	Y12	5450	2	10.9	5200, 250	
GROUND BEAM 2	1	03	Y12	5450	2	10.9	5200, 250	
GROUND BEAM 2	1	04	Y12	12000	2	24	11750, 250	
GROUND BEAM 2	1	05	Y8	960	81	77.76	50, 50, 250, 180	
GROUND BEAM 3	1	01	Y12	12000	2	24	11750, 250	
GROUND BEAM 3	1	02	Y12	5450	2	10.9	5200, 250	
GROUND BEAM 3	1	03	Y12	5450	2	10.9	5200, 250	
GROUND BEAM 3	1	04	Y12	12000	2	24	11750, 250	
GROUND BEAM 3	1	05	Y8	960	81	77.76	50, 50, 250, 180	
GROUND BEAM 4	4	01	Y12	2150	16	34.4	1650, 250	
GROUND BEAM 4	4	02	Y8	960	28	26.88	50, 50, 250, 180	
GROUND BEAM 5	2	01	Y12	11500	8	92	11000, 250	
GROUND BEAM 5	2	02	Y8	960	110	105.6	50, 50, 250, 180	
GROUND BEAM 6	1	01	Y12	10150	4	40.6	9650, 250	
GROUND BEAM 6	1	02	Y8	960	47	45.12	50, 50, 250, 180	

Page 2/2

Bar Bending Schedule

PROVISION OF PHYSICAL FACILITIES FOR PRIMARY SCHOOLS - PRE-PRIMARY CLASSROOMS BLOCK
(COLUMN FOOTINGS, COLUMNS AND ROOF RING BEAMS)

MEMBER TYPE	NUMBER OF MEMBER	MARK No.	BAR TYPE AND SIZE (mm)	LENGTH OF EACH BAR (mm)	NO.OF BARS	TOTAL LENGTH (m)	SKETCH OF BAR DIMENSIONS IN (mm)	NOTES
ROOF BEAM 1	2	01	Y12	12000	4	48	11750, 250	
ROOF BEAM 1	2	02	Y12	5450	4	21.8	5200, 250	
ROOF BEAM 1	2	03	Y12	5450	4	21.8	5200, 250	
ROOF BEAM 1	2	04	Y12	12000	4	48	11750, 250	
ROOF BEAM 1	2	05	Y8	960	162	155.52	50, 50, 250, 180	
ROOF BEAM 2	2	01	Y12	8750	8	70	8250, 250	
ROOF BEAM 2	2	02	Y8	960	80	76.8	50, 50, 250, 180	
ROOF BEAM 3	1	01	Y12	8750	4	35	8250, 250	
ROOF BEAM 3	1	02	Y8	800	40	32	50, 50, 250, 100	
COLUMN FOOTING	2	01	Y12	1300	12	15.6	200	
COLUMN FOOTING	2	02	Y12	1300	12	15.6	900, 200	
COLUMN STARTER	2	03	Y8	820	10	8.2	50, 50, 180, 180	
COLUMN STARTER	2	04	Y12	1900	8	15.2	1600, 300	
COLUMN	2	01	Y12	2950	8	23.6	2770, 180	
COLUMN	2	02	Y8	820	30	24.6	50, 50, 180, 180	

NOTE:

1. All dimensions are in millimetres unless otherswise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings.
3. All Reinforced concrete shall be Grade 20 - Nominal volumetric proportion 1: 2: 4 cube strength not less than 20N/mm² at 28 days.
4. Steel for reinforced concrete shall comply with BS4449 whereby fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped.
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9. Sand borrow pits shall be clean and free from organic materials and shall be approved by Structural Engineers before use.
10. Minimum Compressive Strength for Blocks shall be 3.5N/mm².

PROJECT:

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

IN COLLABORATION WITH

PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT.

Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:

PRE-PRIMARY - CLASSROOMS BLOCK

GROUND FLOOR BEAMS AND ROOF RING BEAMS BAR BENDING SCHEDULES (**REVISED - 1**)

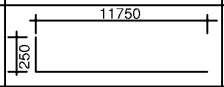
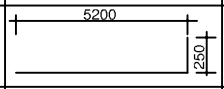
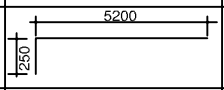
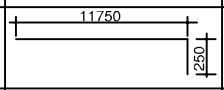
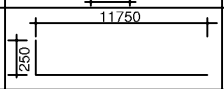
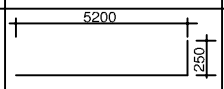
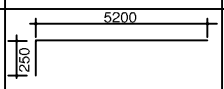
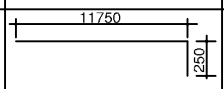
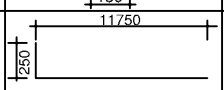
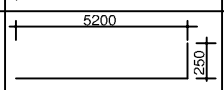
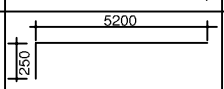
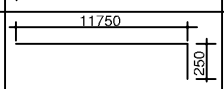
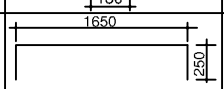
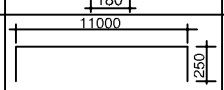
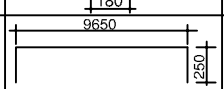
DRAWING USE:
For Building permit: ☐
For Construction: ☑

Drawn by: J.M.S
Date: 2022 Scale:
Drawing No:STR.CR Sheet: 08/08

Page 1/2

Bar Bending Schedule

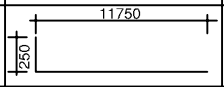
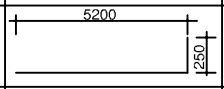
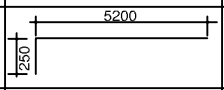
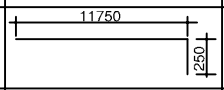
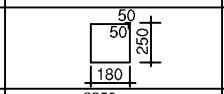
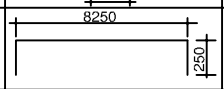
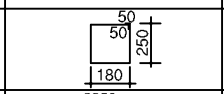
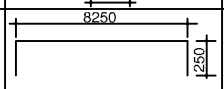
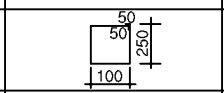
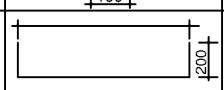
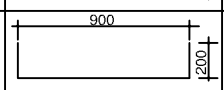
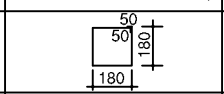
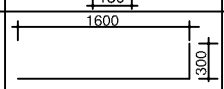
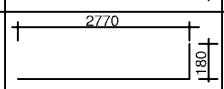
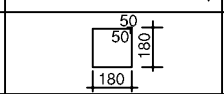
PROVISION OF PHYSICAL FACILITIES FOR PRIMARY SCHOOLS - PRE-PRIMARY CLASSROOMS BLOCK
(GROUND FLOOR BEAMS)

MEMBER TYPE	NUMBER OF MEMBER	MARK No.	BAR TYPE AND SIZE (mm)	LENGTH OF EACH BAR (mm)	NO.OF BARS	TOTAL LENGTH (m)	SKETCH OF BAR DIMENSIONS IN (mm)	NOTES
GROUND BEAM 1	1	01	Y12	12000	2	24		
GROUND BEAM 1	1	02	Y12	5450	2	10.9		
GROUND BEAM 1	1	03	Y12	5450	2	10.9		
GROUND BEAM 1	1	04	Y12	12000	2	24		
GROUND BEAM 1	1	05	Y8	960	81	77.76		
GROUND BEAM 2	1	01	Y12	12000	2	24		
GROUND BEAM 2	1	02	Y12	5450	2	10.9		
GROUND BEAM 2	1	03	Y12	5450	2	10.9		
GROUND BEAM 2	1	04	Y12	12000	2	24		
GROUND BEAM 2	1	05	Y8	960	81	77.76		
GROUND BEAM 3	1	01	Y12	12000	2	24		
GROUND BEAM 3	1	02	Y12	5450	2	10.9		
GROUND BEAM 3	1	03	Y12	5450	2	10.9		
GROUND BEAM 3	1	04	Y12	12000	2	24		
GROUND BEAM 3	1	05	Y8	960	81	77.76		
GROUND BEAM 4	4	01	Y12	2150	16	34.4		
GROUND BEAM 4	4	02	Y8	960	28	26.88		
GROUND BEAM 5	2	01	Y12	11500	8	92		
GROUND BEAM 5	2	02	Y8	960	110	105.6		
GROUND BEAM 6	1	01	Y12	10150	4	40.6		
GROUND BEAM 6	1	02	Y8	960	47	45.12		

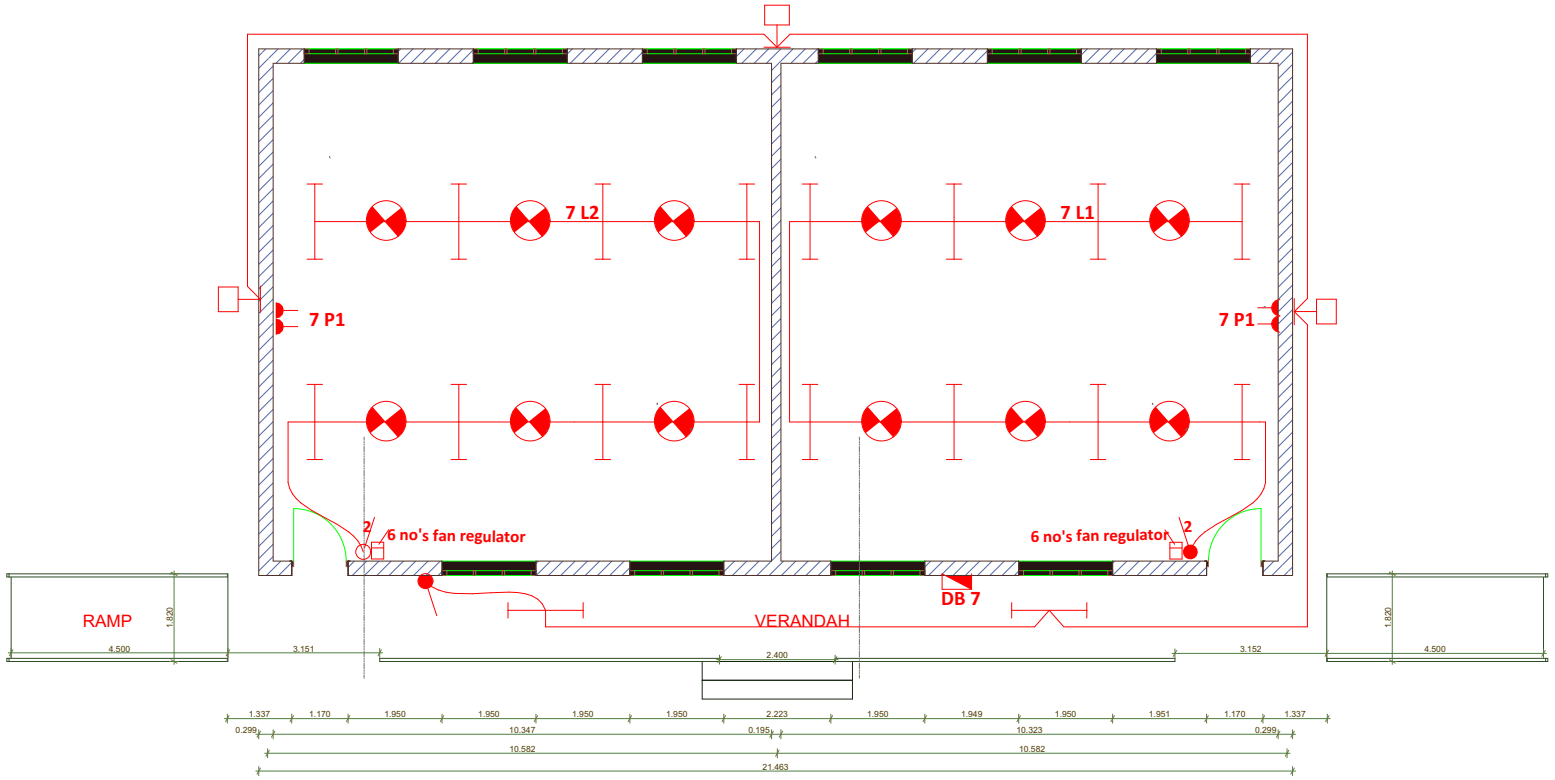
Page 2/2

Bar Bending Schedule

PROVISION OF PHYSICAL FACILITIES FOR PRIMARY SCHOOLS - PRE-PRIMARY CLASSROOMS BLOCK
(COLUMN FOOTINGS, COLUMNS AND ROOF RING BEAMS)

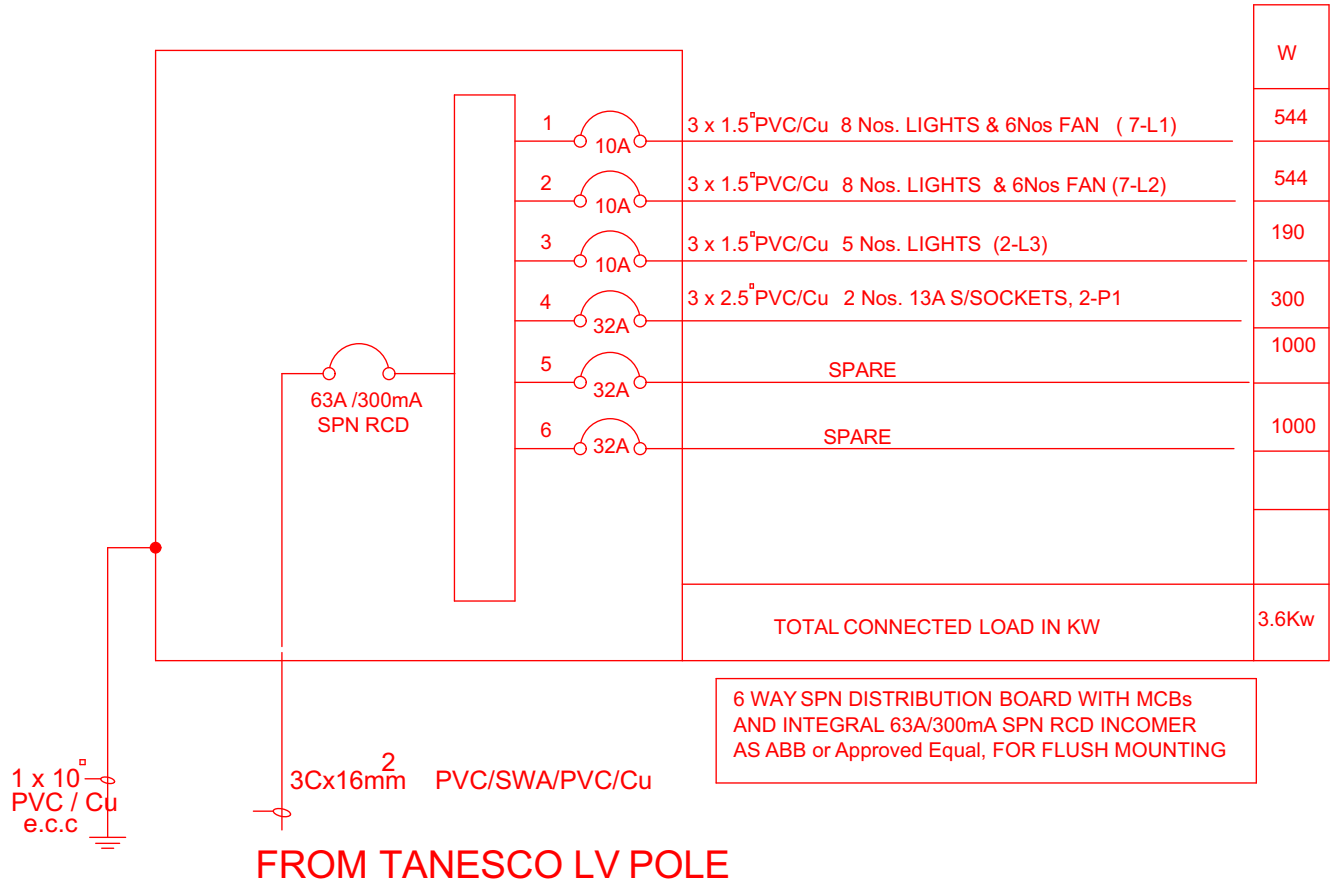
MEMBER TYPE	NUMBER OF MEMBER	MARK No.	BAR TYPE AND SIZE (mm)	LENGTH OF EACH BAR (mm)	NO.OF BARS	TOTAL LENGTH (m)	SKETCH OF BAR DIMENSIONS IN (mm)	NOTES
ROOF BEAM 1	2	01	Y12	12000	4	48		
ROOF BEAM 1	2	02	Y12	5450	4	21.8		
ROOF BEAM 1	2	03	Y12	5450	4	21.8		
ROOF BEAM 1	2	04	Y12	12000	4	48		
ROOF BEAM 1	2	05	Y8	960	162	155.52		
ROOF BEAM 2	2	01	Y12	8750	8	70		
ROOF BEAM 2	2	02	Y8	960	80	76.8		
ROOF BEAM 3	1	01	Y12	8750	4	35		
ROOF BEAM 3	1	02	Y8	800	40	32		
COLUMN FOOTING	2	01	Y12	1300	12	15.6		
COLUMN FOOTING	2	02	Y12	1300	12	15.6		
COLUMN STARTER	2	03	Y8	820	10	8.2		
COLUMN STARTER	2	04	Y12	1900	8	15.2		
COLUMN	2	01	Y12	2950	8	23.6		
COLUMN	2	02	Y8	820	30	24.6		

ELECTRICAL DRAWINGS



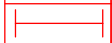
MINISTRY OF EDUCATION,SCIENCE AND TECHNOLOGY IN COLLABORATION WITH PRESIDENT'S OFFICE REGIONAL ADMINSTRATVE AND LOCAL GOVERNMENT	PROVISION OF PHYSICAL FACILITIES IN PRE PRIMARY SCHOOLS	DRAWING TITLE: TWO CLASSROOM BLOCK FLOOR LIGHTING & POWER LAYOUT DRAWING NO:PRE/EL/CR/07	DRAWN BY EEC CHECKED BY EEC SCALE: NTS DEC 2022

2CLASSROOMS DISTRIBUTION BOARD (DB-7)



MINISTRY OF EDUCATION,SCIENCE AND TECHNOLOGY IN COLLABORATION WITH PRESIDENTS OFFICE REGIONAL ADMINSTRATIVE AND LOCAL GORVENMENT	PROVISION OF PHYSICAL FACILITIES IN PRE PRIMARY SCHOOLS	DRAWING TITLE: TWO CLASSROOM BLOCK SCHEMATIC LAYOUT DRAWING NO: PRE/EL/CR/07	DRAWN BY EEC CHECKED BY EEC SCALE: NTS DEC 2022

KEY TO SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
	Distribution Board with integral RCD	2000 mm AFFL
	Bulkhead light Fitting	Wall Mounted
	4FT Single Electronic Start Fluorecent Light	On Ceilling
	Ceilling Fan	On Ceilling
	Fan Regulator	1500 mm AFFL
	1 gang 1way Switch	1500 mm AFFL
	1 gang 2way Switch	1500 mm AFFL
	2 gang 2way Switch	1500 mm AFFL
	3 gang 1way Switch	
	2 gang 1way Switch	1500 mm AFFL
	4 gang 1way Switch	1500 mm AFFL
	Twin Switch Socket	450 mm AFFL
	Ceilling light complete with energy saver 11w	on level

MINISTRY OF EDUCATION,SCIENCE AND TECHNOLOGY IN COLLABORATION WITH PRESIDENTS OFFICE REGIONAL ADMINSTRATIVE AND LOCAL GORVENMENT	PROVISION OF PHYSICAL FACILITIES IN PRE PRIMARY SCHOOLS	DRAWING TITLE: THREE CLASSROOM BLOCK **LEGEND** DRAWING NO: P/EL/CR/07	DRAWN BY EEC CHECKED BY EEC SCALE: NTS DEC 2022