

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 120 Pupils Toilet
Block (6 Stances) for Girls – Dry area.

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.

Schedule of Material

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	<u>MATERIALS</u>				
A	SUB-STRUCTURE -PROVISIONAL				
1	<u>Strip Foundation - Grade 15 Plain</u>				
	Aggregate (3/4")	5	M ³		
	Sand	2	M ³		
	Cement-50kgs	18	Bags		
2	<u>Foundation Walls</u>				
	6" Cement & Sand block - Minimum Strength 3.5 M	285	No		
	Sand	3	M ³		
	Cement -50kgs	6	Bags		
3	<u>Moram, Hardcore & Site sterilization</u>				
	Moram (4.5m ³ lorry)	2	Trips		
	Hardcore (4.5m ³ lorry)	2	Trips		
	Sand	3	M ³		
	Adrian 0.5% solution or equal 500mls	1	Bottle		
4	<u>Oversite Concrete (100mm thick - 20 grade) & Ground Beam - 20 grade, columns and Ramp</u>				
	DPM	34	M ²		
	Cement -50kgs	18	Bags		
	Aggregates (1/2")	3	M ³		
	Sand	2	M ³		
	Reinforcement - 12mm diameter high tensile	11	PC'S		
	Reinforcement - 8mm diameter	9	PC'S		
	Binding Wire	4	Kg		
	A252 Mesh 200 x200x6.16kg/m2	1	PC'S		
	Timber 1" X 10 " (3.6m long)	7	PC'S		
	Timber 2" X 2"	3	PC'S		
	Nails-4"	3	Kgs		
	Nails-3"	3	Kgs		
	Supporting props	0	PC'S		
	SUB-TOTAL SUBSTRUCTURE				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
B.	SUPERSTRUCTURE				
1	<u>Walls & Ring beam & Columns</u>				
	6" Cement, Chipping & Sand Block	720	No		
	DPC 25m long x 1m wide)	9	M		
	Sand	5	M ³		
	Cement-50kgs	13	Bags		
	Aggregates (1/2")	1	M ³		
	Reinforcement - 12mm diameter high tensile	6	PC'S		
	Reinforcement - 8mm diameter	4	PC'S		
	Binding Wire	3	kg		
	A252 Mesh 200 x200x6.16kg	0	PC'S		
	Timber 1" X 10" to Sides (3.6m long)	5	PC'S		
	Timber 1" X 6" (Plates)	2	PC'S		
	Timber 2" X 2"	4	PC'S		
	Supporting Props	4	PC'S		
	SUB-TOTAL SUPER STRUCTURE				
C.	ROOF STRUCTURE & COVERING				
1	<u>Roof Structure - Provisional (3.6m long)</u>				
	Timber 2 " X 3" Purlins	6	PC'S		
	Timber 2" X 4" Wall plate,Rafter	9	PC'S		
	Fascia board 1" X 8"	5	PC'S		
	Nails -5"	3	Kgs		
	Nails -4"	3	Kgs		
	Nails -3"	3	Kgs		
	NOTE: The above softwood timber structure should be pressure impregnated treated				
2	<u>Roof Covering</u>				
	28G IT5 resincoated sheet 3m long	10	pcs		
	Roofing Nails	1	Kgs		
	TO COLLECTION			C/F	

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	ROOF STRUCTURE & COVERING CONT...			B/F	
3	<u>Gutter's</u>				
	Upvc 100mm half round (6m long)-5"	2	PC'S		
	Upvc 75mm diameter down pipe; Class B	1	PC'S		
	PVC outlet	1	PC'S		
	PVC bend 90'	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	<u>40mm thick hardwood (mninga) or equal and aproved paneled door shutter</u>				
	920 x 2100mm high	1	PC'S		
	720 x 2100mm high	7	PC'S		
2	<u>45 x 145mm Frames (hardwood),Varnish, Glass & Buralar bar</u>				
	1000 x 2100 mm high frame	1	PC'S		
	800 x 2100 mm high frame	7	PC'S		
	Brush 3"	2	Pcs		
	Sand paper (msasa) No.80	2	LM		
	Clear Varnish - 4Litres	2	TIN		
	Thinner for Varnish -4Litres	2	Litres		
	Door grill with 38mm x 4mm flat bars, 25mm x 25mm square pipespainted with red oxide				
	1000 x 1500mm high	1	No		
3	<u>IronMongeris - ref Union</u>				
	Barrel bolt with pad lock	8	No		
	Flush bolt	8	No		
	Brass hinges - 100mm	12.0	Pairs		
	SUB-TOTAL FOR DOORS				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
E.	FINISHING				
1	<u>Floor finishing</u>				
	Bedding/Backing; cement sand and Chipping (1:2:2); to steel finishing				
	Sand	1	M ³		
	Cement-50kgs	4	Bags		
2	<u>Wall Finishing</u>				
	Sand	3	M ³		
	Cement-50kgs	8	Bags		
	Wall Puty	5	Bags		
	SUB-TOTAL FOR FINISHING				
F.	PAINTING & DECORATION				
	Emulsion Paint - 20 LTRS	2	buckets		
	Weather guard Paint - 20 LTRS	1	buckets		
	Washable paint -20 LTRS	1	buckets		
	Primer paint -5 LTRS	1	buckets		
	Solvent - 5LTRS	1	TIN		
	Brush 3"	2	Pcs		
	Roller	2	Pcs		
	Gloss paint-4LTR	1	TIN		
	Bitumen paint - 4Litres	1	TIN		
	SUB-TOTAL FOR PAINTING&DECORATION				
G.	PLUMBING & SANITARY INSTALLATION-PROVISIONAL				
1	Western type high level W.C disabled toilet,suite vitrious china to B.S 3402 s/p-trap compete with its accessories,supporting rails, Handwashing and any other accessories complete	1	Pcs		
2	<u>PIPES WORK</u>				
	SUPPLY PIPE PN 16				
	PPR/IPS pipes class B argentina 3/4"	Pcs	5		
	PPR/IPS socket (20Ø) 3/4"	No	4		
	PPR/IPS elbow (20Ø) 3/4"	No	32		
	PPR/IPS tee (20Ø) 3/4"	No	28		
	PPR/IPS niple (20Ø) 3/4"	No	47		

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	PPR/IPS reducing bush (20Ø) 3/4" to 1/2"(15Ø)	No	36		
	PPR/IPS pipes class B argentina 1"(32Ø)	Pcs	2		
	PPR/IPS socket 1"(32Ø)	No	4		
	PPR/IPS elbow 1"(32Ø)	No	4		
	PPR/IPS tee 1"(32Ø)	No	4		
	PPR/IPS nipple 1"(32Ø)	No	4		
	PPR/IPS reducing bush (32Ø) 1" to 3/4"(20Ø)	No	7		
	PPR/IPS pipes class B argentina 1 1/2"(50Ø)	Pcs	3		
	PPR/IPS socket 1 1/2"(50Ø)	No	6		
	PPR/IPS elbow 1 1/2"(50Ø)	No	4		
	PPR/IPS tee 1 1/2"(50Ø)	No	4		
	PPR/IPS nipple 1 1/2"(50Ø)	No	4		
	PPR/IPS reducing bush (50Ø) 1 1/2" to 1"(32Ø)	No	3		
	Seal tape	Pcs	20		
	<u>VALVES AND CONTROLS</u>				
	Bib cork pex/martex 1/2" PN 16	No	11		
	Gate valve pex/martex 3/4" PN 16	No	1		
	Gate valve pex/martex 1" PN 16	No	1		
	Ball valve 1 1/4"	No	1		
H	<u>WATER STORAGE TANK</u>				
	1,000litres TANK	No	2		
	Tank connector 1"	No	6		
	Tangit glue 1000g	kg	0.5		
	Clamp 3"		4 PC'S		
	SUB-TOTAL FOR PLUMBING & SANITARY INSTALLATION-				
J.	TANK BASE				
	6" Cement & Sand Block	20	No		
	Cement-50kgs (42.5)	2	Bags		
	Aggregates (1/2")	1	M3		
	Sand	1	M3		
	TOTAL FOR TANK BASE				

ITEM	DESCRIPTION	QTY	UNIT	PRICE-TZS	AMOUNT
	SOAK AWAY PIT				
	<u>MATERIALS</u>				
1	<u>Strip Foundation - Grade 15 Plain</u>				
	Aggregate (3/4")	4	M ³		
	Sand	2	M ³		
	Cement-50kgs	18	Bags		
2	<u>230mm thick Walls</u>				
	6" Cement & Sand Block	1,400	No		
	Sand	4	M ³		
	Cement -50kgs	25	Bags		
	Hardcore 230mm thick (4.5m ³ lorry)	2	Trips		
4	<u>150mm thick Suspended Concrete slab & ground beam- 20 grade</u>				
	Cement -50kgs	42	Bags		
	Aggregates (1/2")	5	M ³		
	Sand	3	M ³		
	Reinforcement - 12mm diameter high tensile	11	PC'S		
	Reinforcement - 8mm diameter high tensile	10	PC'S		
	Reinforcement - 10mm diameter high tensile	47	PC'S		
	Binding Wire - 1kg	7	Kgs		
	Timber 1" X 10 " (3.6m long)	9	PC'S		
	Marine board	7	PC'S		
	Timber 2" X 2"	8	PC'S		
	Supporting props	11	PC'S		
	Nails-4"	6	Kgs		
	Nails-3"	6	Kgs		
	Pre Cast concrete chamber 600 x 600mm	3	PCS		
	TOTAL SOAK AWAY PIT				

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				

	<u>SUMMARY</u>	AMOUNT TZS
	<u>6no stances toilets block - Girls Block</u>	
A.	SUB-STRUCTURE -PROVISIONAL	
B.	SUPERSTRUCTURE	
C.	ROOF STRUCTURE & COVERING	
D	DOOR	
E	FINISHING	
F	PAINTING & DECORATION	
G	PLUMBING AND INSTALLATION	
J	TANK BASE	
K	SOAK AWAY PIT	
L	HANDRAILS TO RAMP	
	TOTAL BUILDING MATERIALS CARRIED TO GENERAL SUMMARY	
	<u>ADD:</u>	
	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

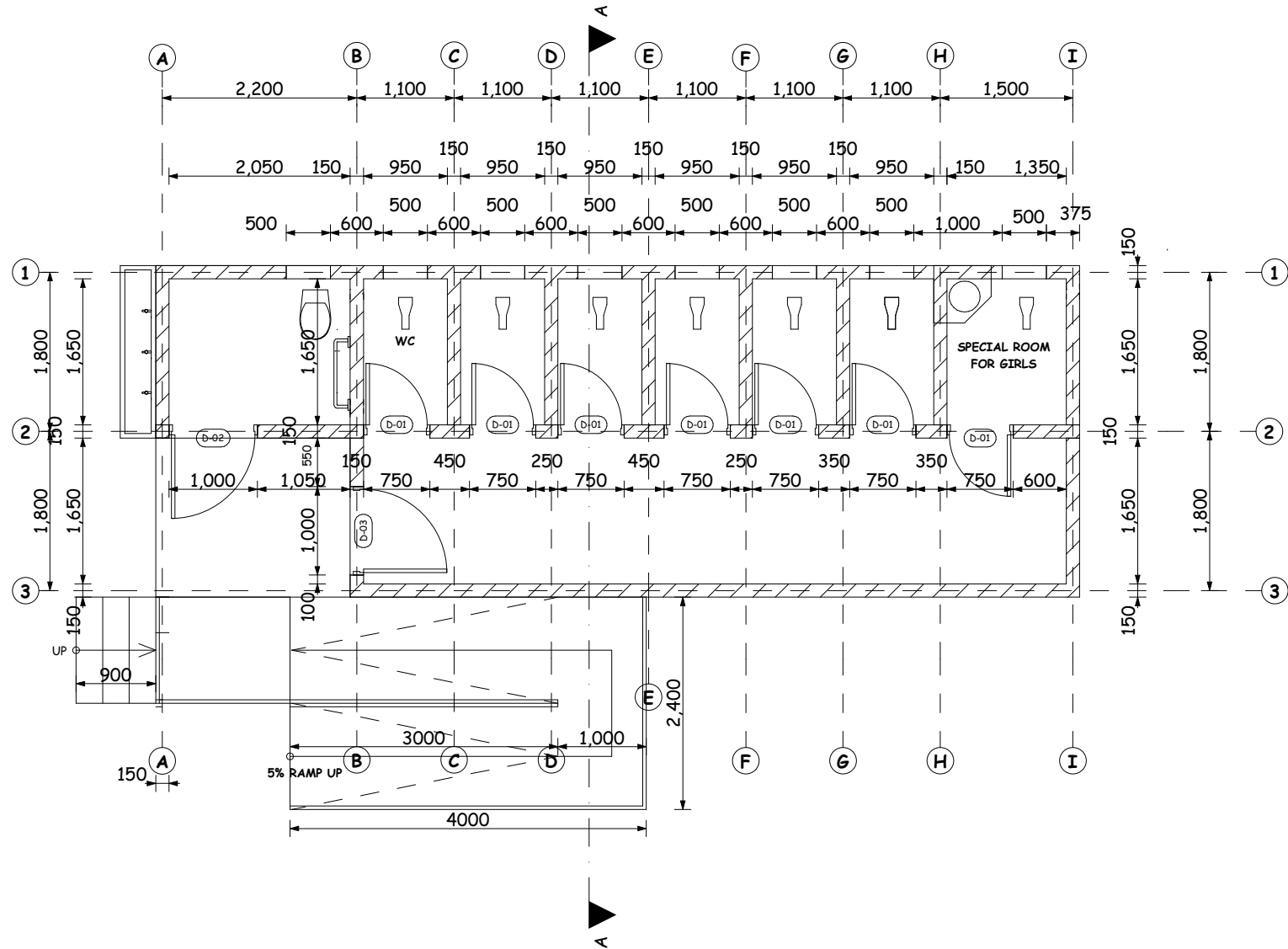
JANUARY, 2023

ARCHITECTURAL DRAWINGS

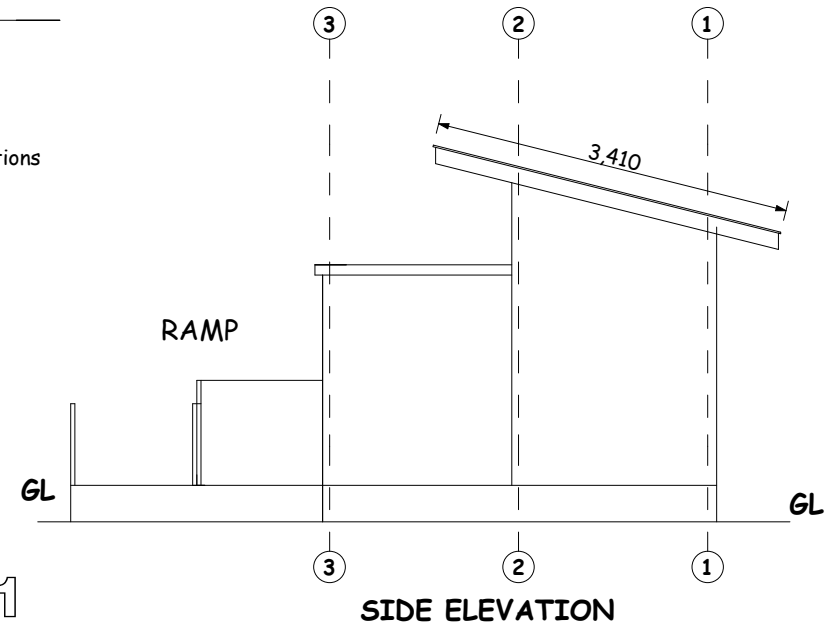
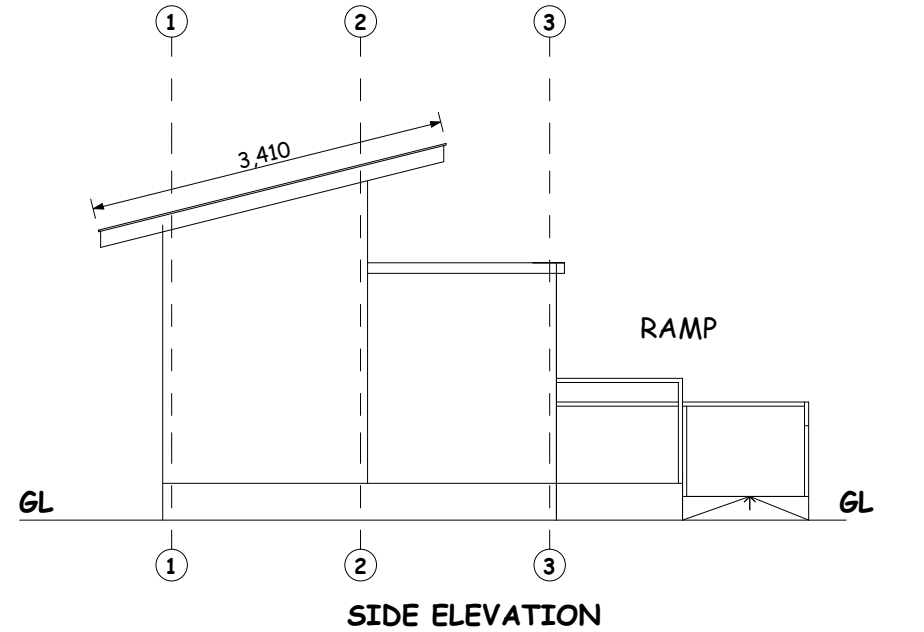
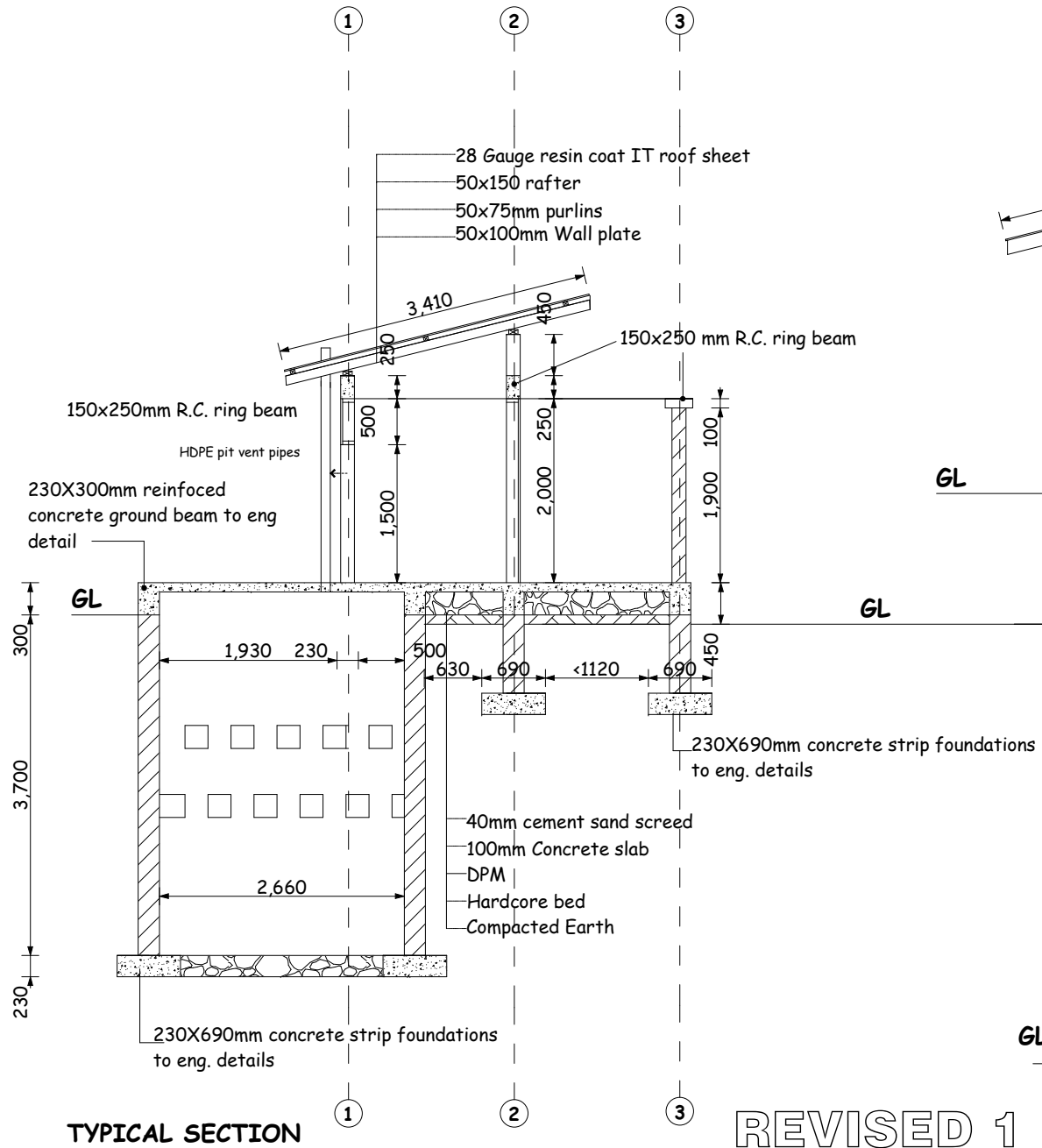
TOILET BLOCKS - DRY AREA

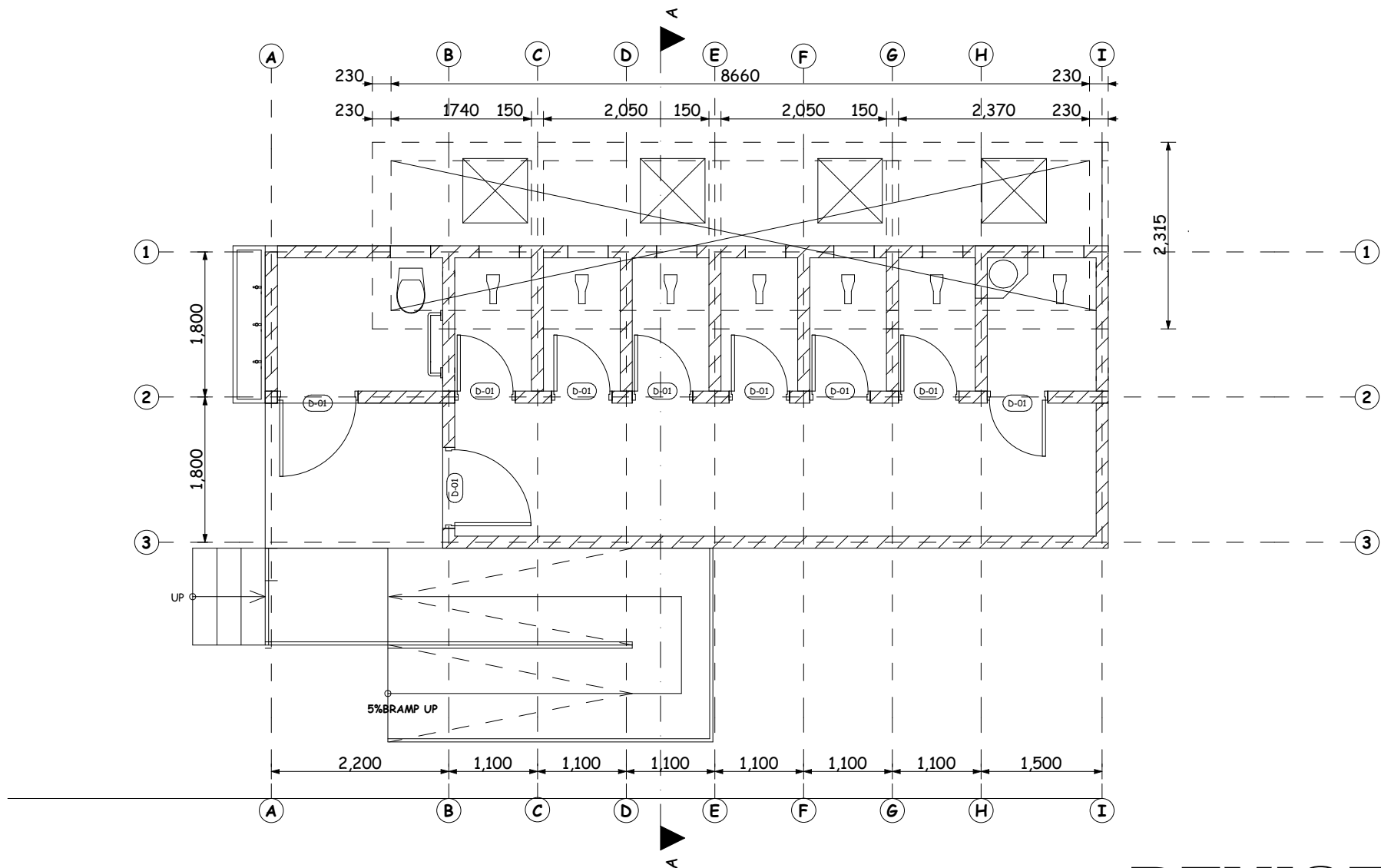
120 GIRLS (6 STANCES) WITH FACILITY FOR DISABLED AND SPECIAL ROOM

WINDOW OPENING		
WINDOW TYPE	HEIGHT X WIDTH	QUANTITY
	750 X 500	8
DOOR SCHEDULE		
DOOR TYPE	HEIGHT X WIDTH	QUANTITY
D-01	2100 X 750	07
D-02	2100 X 1000	01
D-03	2100 X 900	01



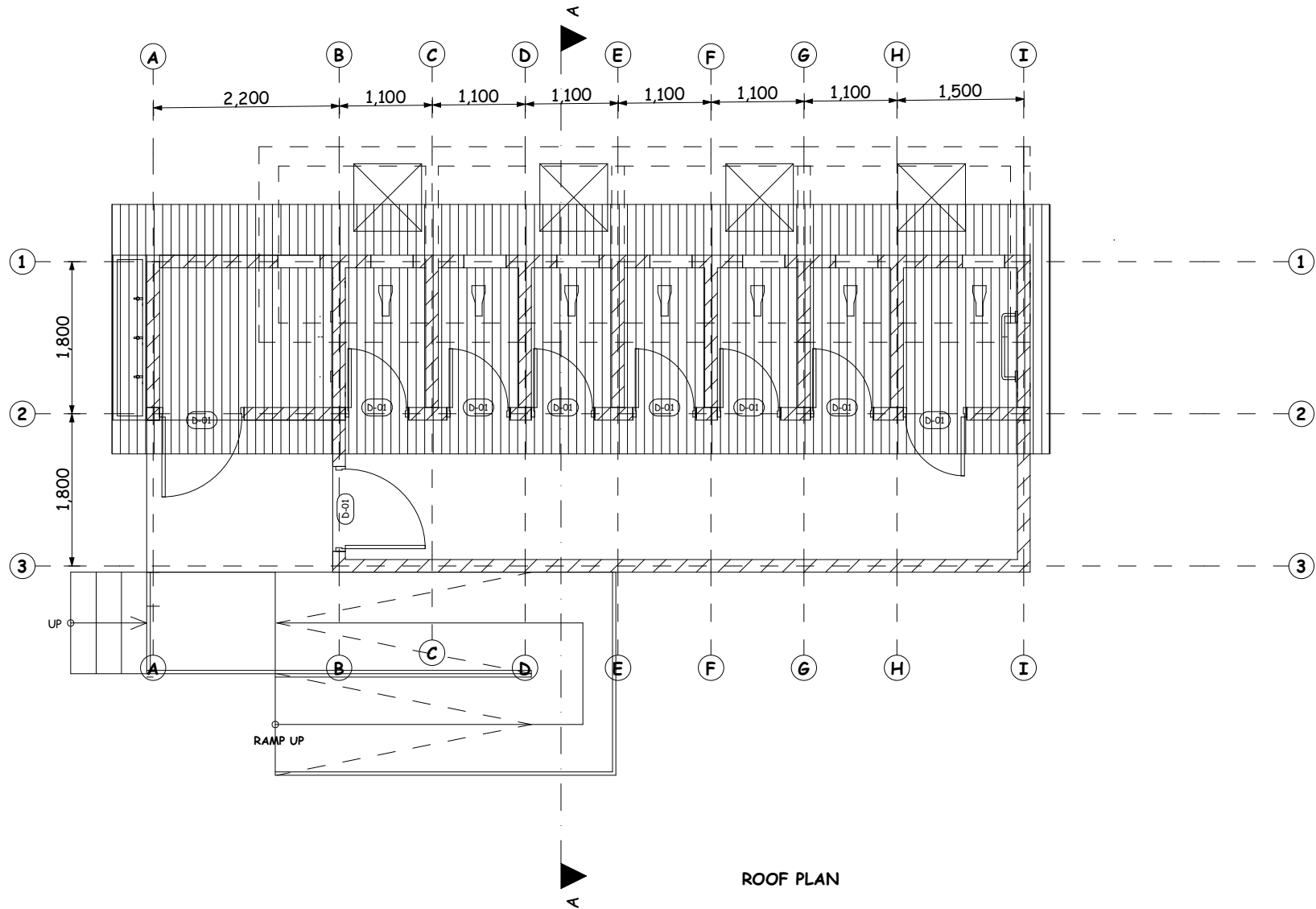
REVISED 1

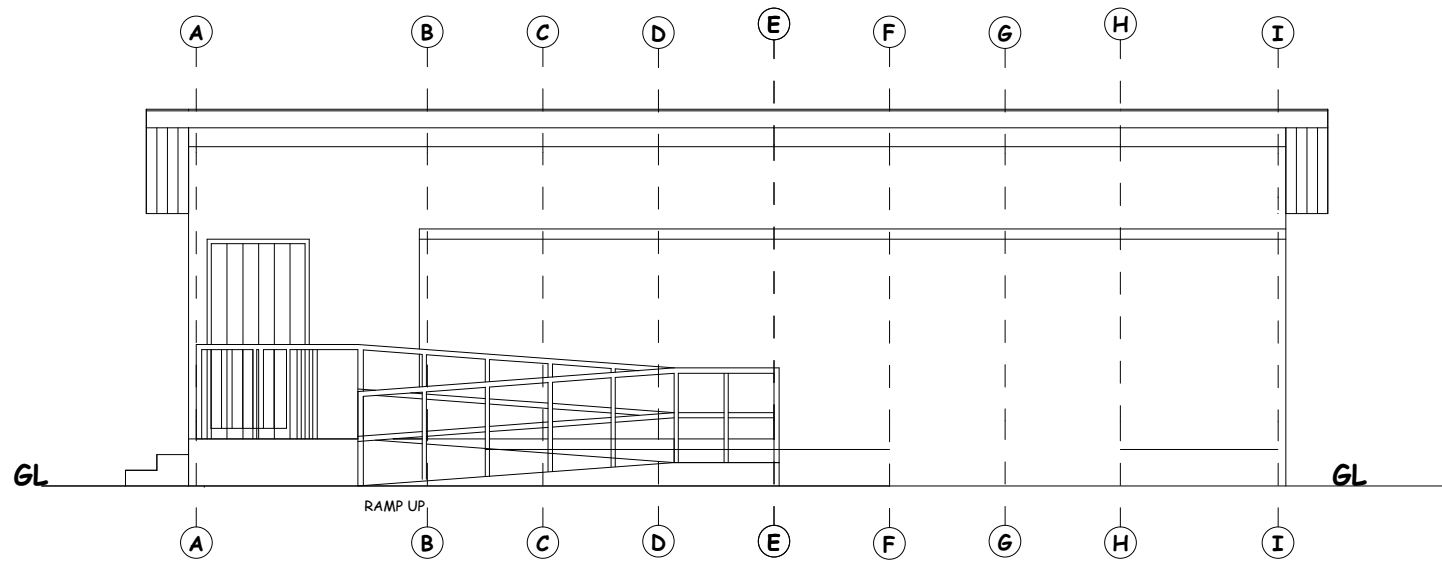




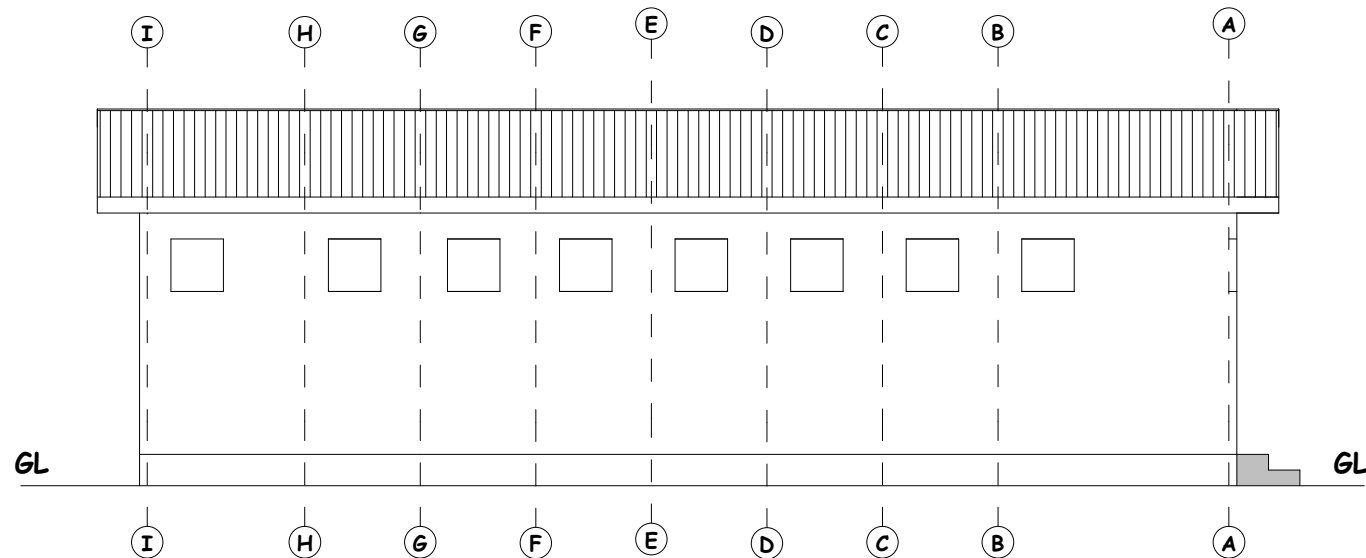
PIT TANK LOCATION LAYOUT

REVISED 1





FRONT ELEVATION



REAR ELEVATION

REVISED 1

LIST OF DRAWINGS

DRAWING NO.

DESCRIPTION,

BP/PL/TLT/01

LEGEND AND NOTES

BP/PL/TLT/02

WATER SUPPLY SYSTEM

BP/PL/TLT/03

RAIN WATER HARVESTING SYSTEM

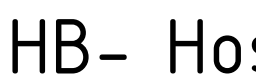
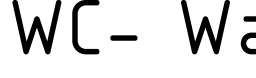
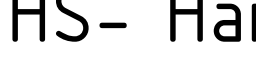
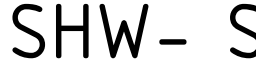
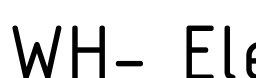
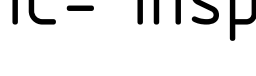
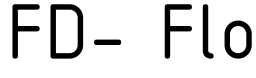
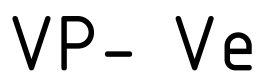
BP/PL/TLT/04

PART PLAN AND SECTION DETAILS

Notes

1. Pipe dimensions are in mm internal diameter (DN).
2. All internal water supply pipes and riser shall be embedded in walls/floor as shown on the drawings
3. All internal water supply pipes shall be in PPR (Fusion) and external pipe should be HDPE
4. All wastewater pipes shall be of uPVC class “B” embedded to wall/concrete floor where applicable except for vent pipes
5. All drains pipes passing under building or drive way should be incased in 150mm concrete surrounding
6. Manhole cover and Gully trap covers in walking areas to be air tight and their top finishing to match with their surroundings otherwise manhole to be cast iron medium duty
7. Slope of horizontal wastewater pipes from appliances should not exceed 1:40
8. Slopes of horizontal wastewater pipes from GT to MH or MH to MH should not exceed 1:100
9. Slopes of storm water drainage should not exceed 1%
10. All work to be carried out in accordance with all relevant acts, regulations, statutory authority requirements and best practices
11. All relevant details, level dimensions must be checked onsite. Any discrepancies must be reported for approval prior to implementation
12. The design including details must be coordinated with other designs (Structural, PLhitectural and other services) prior to implementation
13. ALL LABORATORY WASTE PIPES ARE VULCATHENE PIPES
14. These drawings must be used in conjunction with PLhitectural drawings for dimension reference
15. Site information must be analysed before use of these drawings

LEGEND

	Cold Water supply pipes		HWB- hand wash basin
	Sanitary drainage pipes		HB- Hose Bib
	Hot water supply pipes		WC- Water closet
	Vent pipe		UR- Urinals
	Gate valve		HS- Handspray
	Check valve		SHW- Shower tray
	Water meter		WH- Electric water heater
	Hand operated angle valve		GT- Gully trap
	Flexible pipe		IC- Inspection chamber
	Hose bib		IL- Invert level
	Straight tee		FD- Floor drain
	90° elbow		VP- Vent pipe
	elbow going downwards		CWP- Cold water provision
	elbow going upwards		WWP- Waste water provision
	tee going upwards		
	tee going downwards		
	Direction of water flow		
	Shower mixer		
	Wall mounted electric water heater		

NOTE

All ppr-pipes exposed to sunlight should be insulated

NOTE

ALL DIMENSIONS ARE IN MILLIMETRES
ALL PIPE DIAMETERS ARE EXTERNAL DIAMETERS

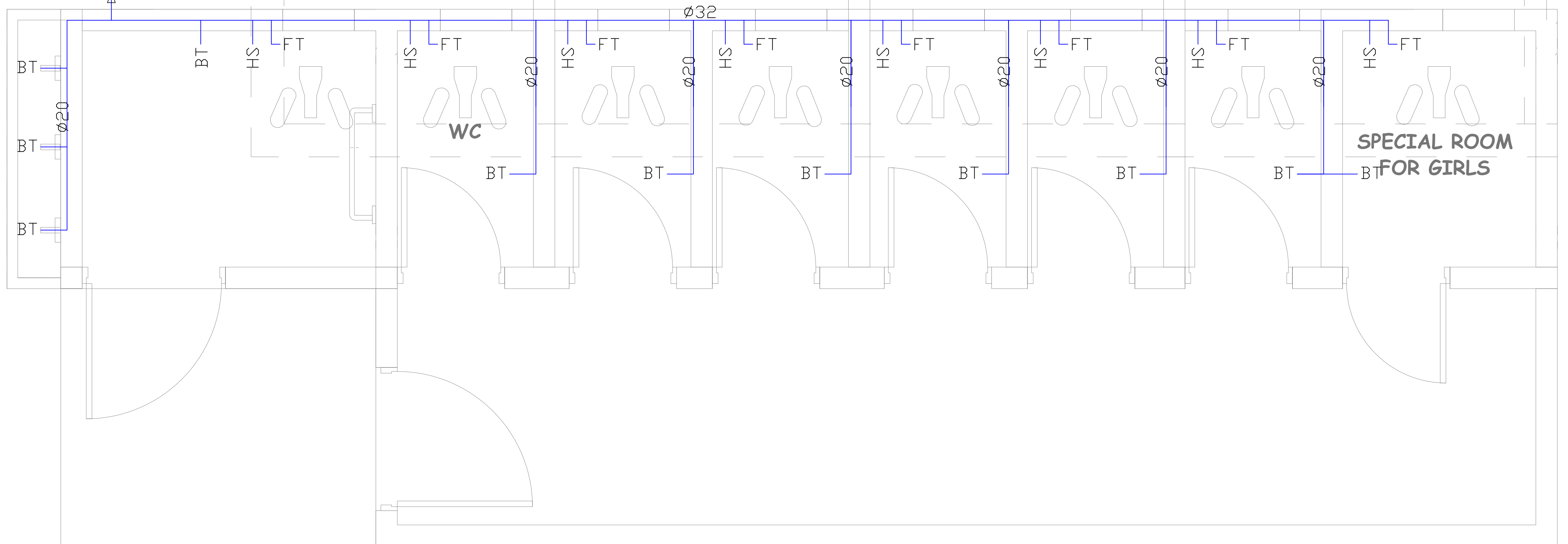
NOTE:

ALL SANITARY APPLIANCES SHOULD BE CONNECTED TO THE WATER SUPPLY PIPE THROUGH AN ANGLE VALVE

NOTE:

ALL PIPES DIAMETER SPECIFIED ARE EXTERNAL DIAMETERS AND HAVE BEEN SPECIFIED ACCORDING TO ISO 4427, THESE PIPES ARE PPR-PIPES WITH PN1.6

Ø25 Pipe from rain
water tank



UP

RAMP UP

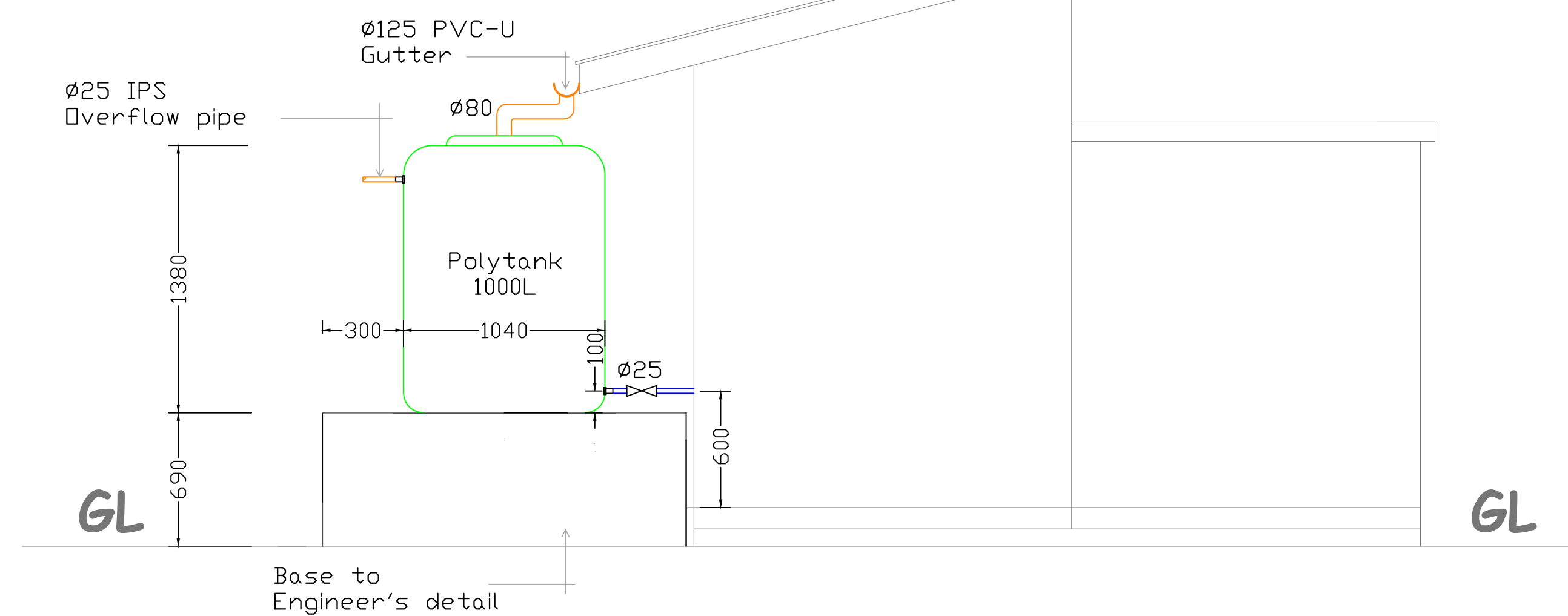
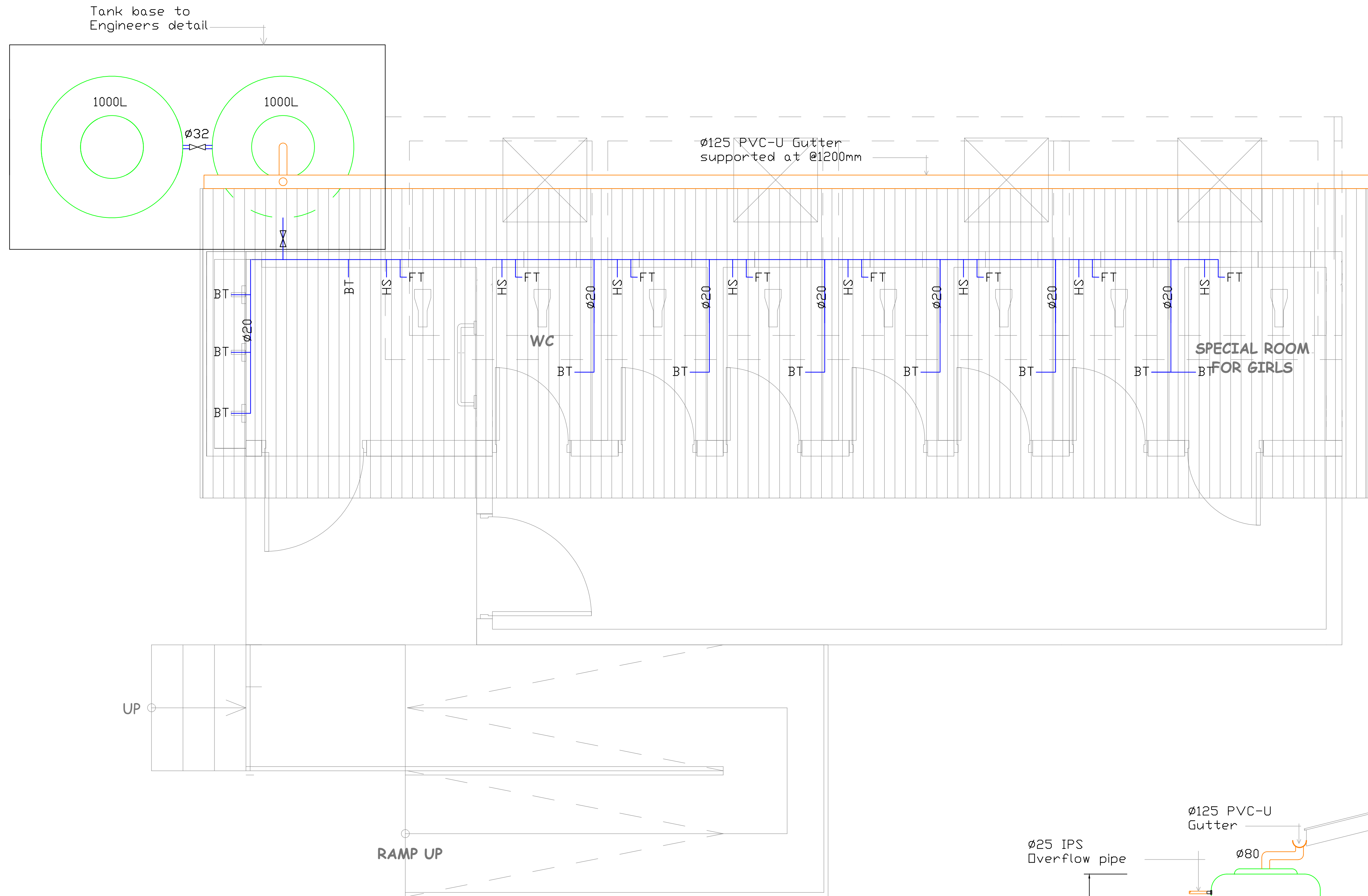
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
IN COLABORATION WITH
PRESIDENT'S OFFICE REGIONAL ADMINISTRATION AND
LOCAL GOVERNMENT

PROVISION OF PHYSICAL FACILITIES IN PRIMARY SCHOOLS

DRAWING TITLE
TOILET FOR 120 GIRLS WITH FACILITY FOR DISABLED
DRY AREA - WATER SUPPLY SYSTEM

DRAWING NO. BP/PL/TLT/02

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



STRUCTURAL DRAWINGS

FOR

**TOILET BLOCK - DRY AREA
150 GIRLS (6 STANCES) WITH FACILITY FOR DISABLED AND SPECIAL
ROOM GIRLS**

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.
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:
 - Slabs25mm
 - Beams25mm
 - Columns25mm
 - 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.

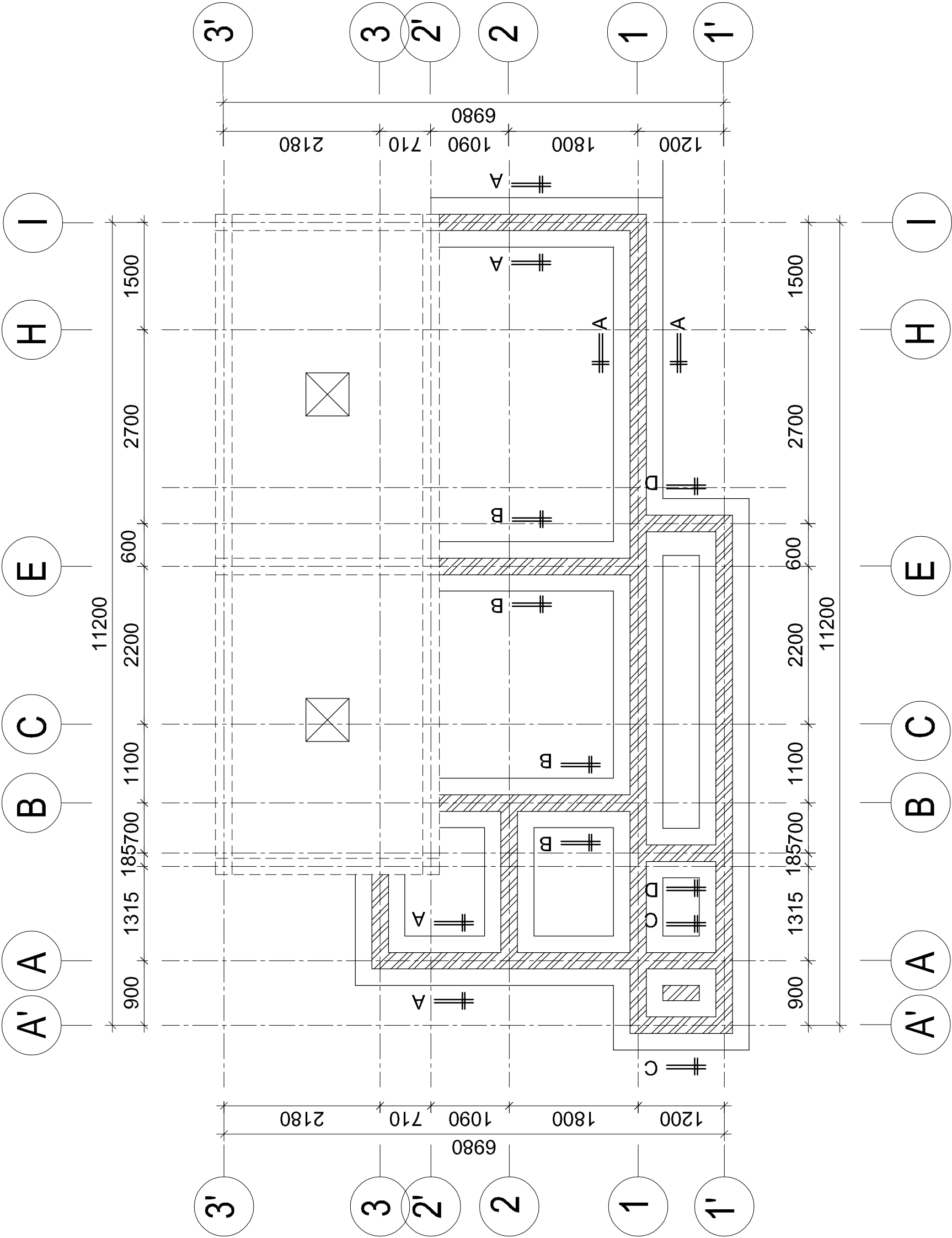
Designed by: Eng. J.M.S
Checked by: Eng. N.T.B
Approved by:

DRAWING TITLE:
TOILET FOR 150 GIRLS WITH
FACILITY FOR DISABLED AND
SPECIAL ROOM - DRY AREA

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: 01/09



FOUNDATION LAYOUT PLAN
Scale 1:100

NOTE:-

1. All dimensions are in millimetres unless otherwise 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. 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:
 - Slabs25mm
 - Beams25mm
 - Columns25mm
 - Footings50mm
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:

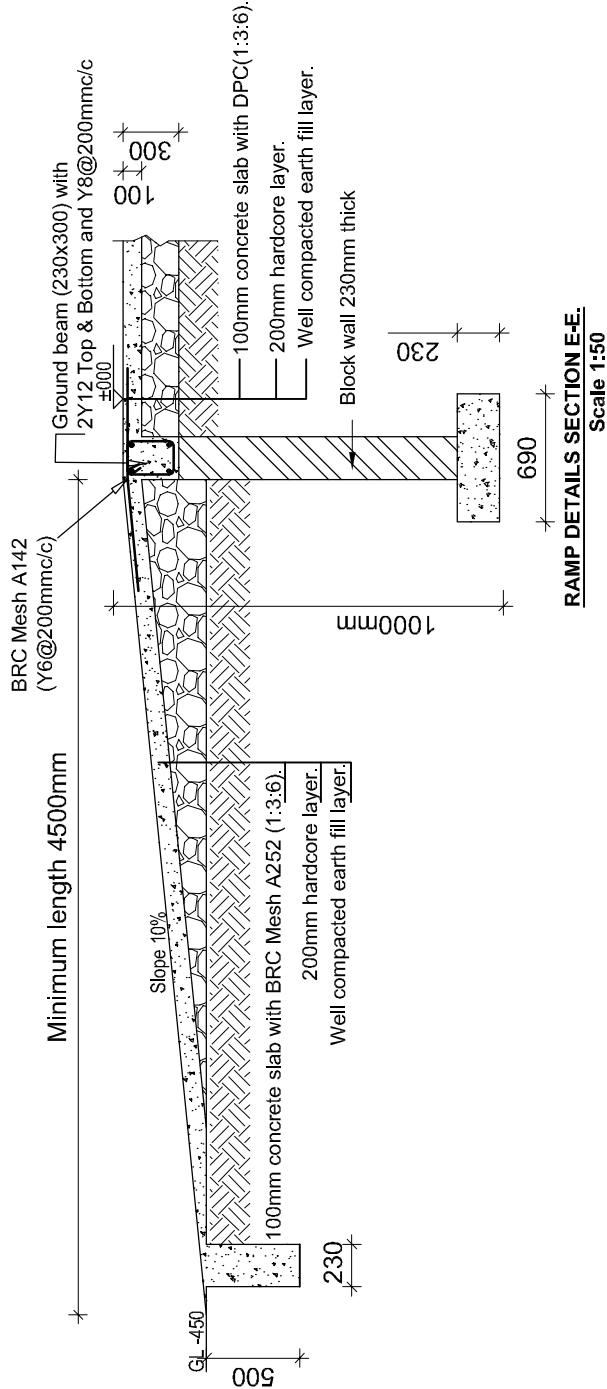
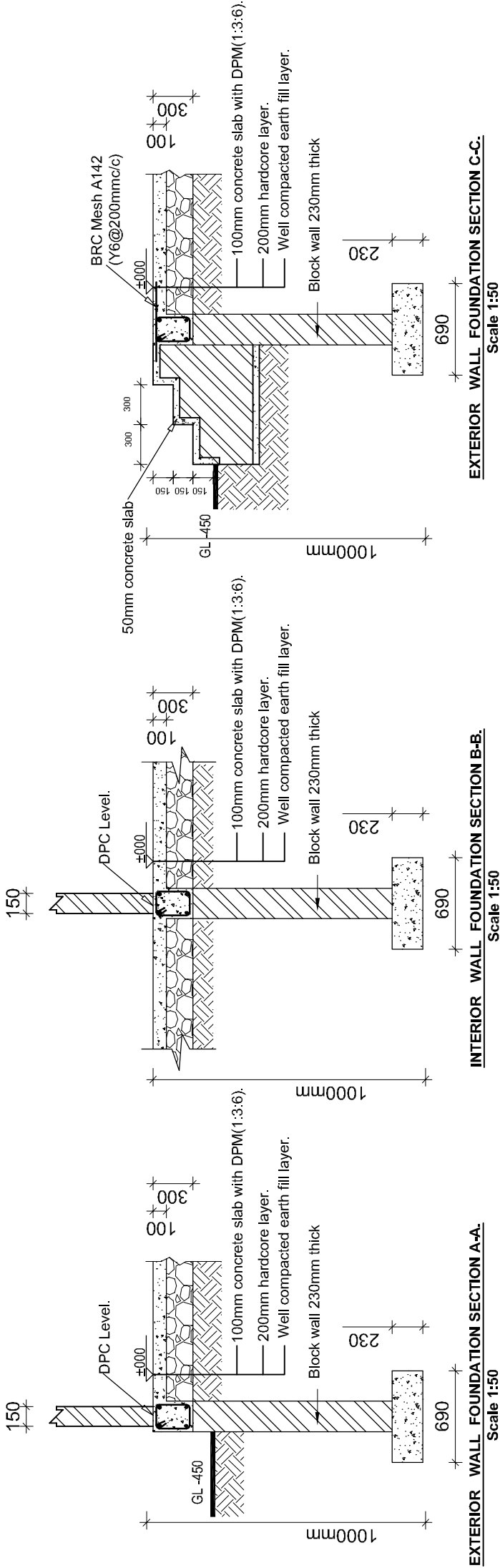
DRAWING TITLE:

TOILET FOR 150 GIRLS WITH
FACILITY FOR DISABLED AND
SPECIAL ROOM - DRY AREA

FOUNDATION DETAILS
(REVISED -1)

DRAWING USE:
For Building permit:
For Construction:

Drawn by: J.M.S
Date: 2022
Drawing No:STR.CR
Scale:
Sheet: 02/09



NOTE:-

1. All dimensions are in millimetres unless otherwise stated. In case of discrepancy, consult the Structural Engineer.
2. All structural engineering drawings should be read in conjunction with relevant architectural drawings. 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. 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:

• Slabs25mm

• Beams25mm

• Columns25mm

• Footings50mm
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:

TOILET FOR 150 GIRLS WITH
FACILITY FOR DISABLED AND
SPECIAL ROOM - DRY AREA

PLINTH BEAMS LAYOUT PLAN
(REVISED -1)

DRAWING USE:

For Building permit:

For Construction:

Drawn by:

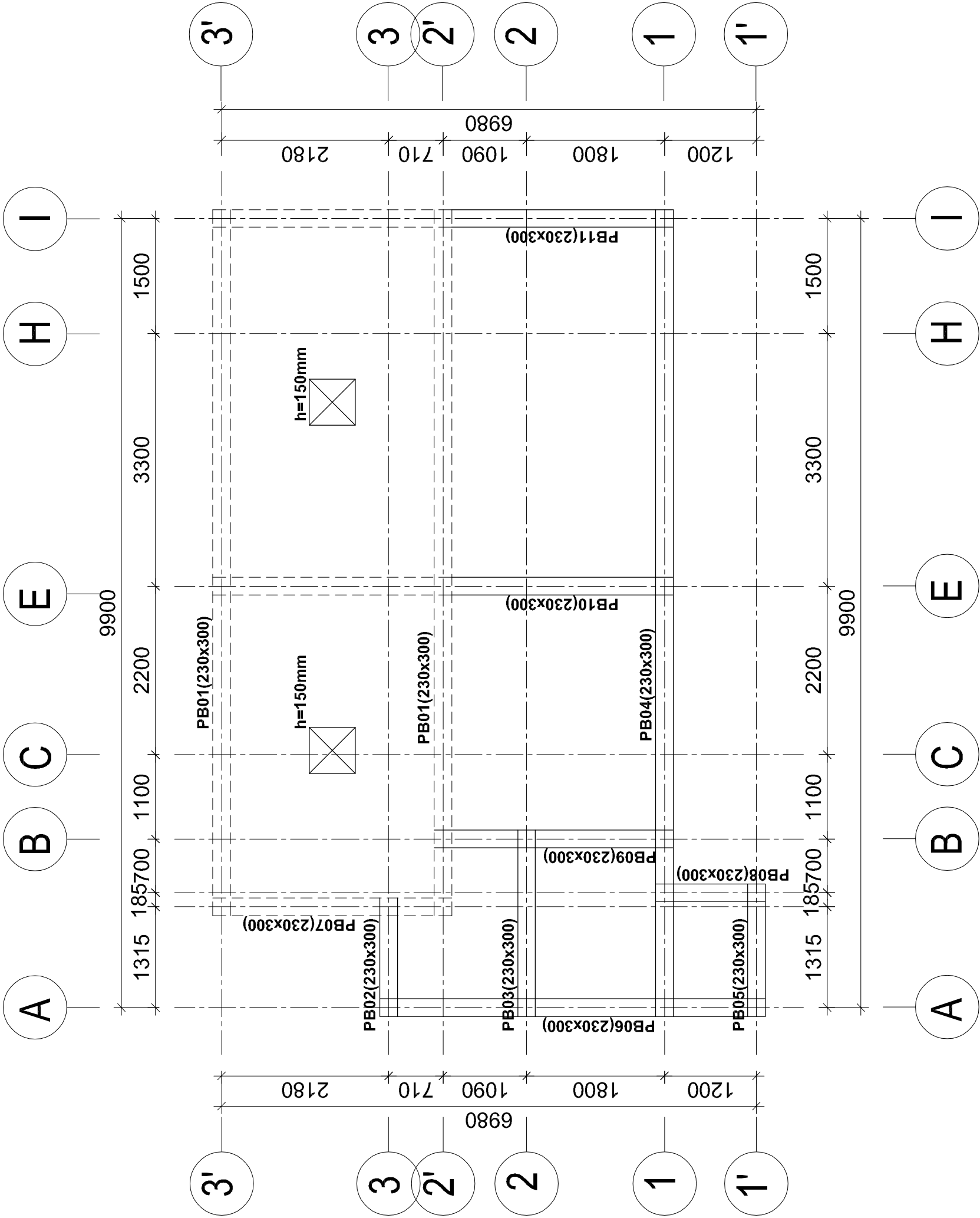
J.M.S

Date: 2022

Scale:

Drawing No:STR.CR

Sheet: 03/09



PLINTH BEAMS LAYOUT PLAN

Scale 1:100

NOTE:-

1. All dimensions are in millimetres unless otherwise 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. 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:

• Slabs25mm

• Beams25mm

• Columns25mm

• Footings50mm
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:

TOILET FOR 150 GIRLS WITH FACILITY FOR DISABLED AND SPECIAL ROOM - DRY AREA

PLINTH BEAMS DETAILS
(REVISED -1)

DRAWING USE:

For Building permit:

For Construction:

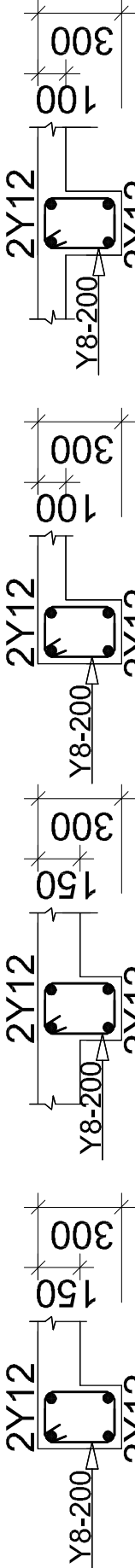
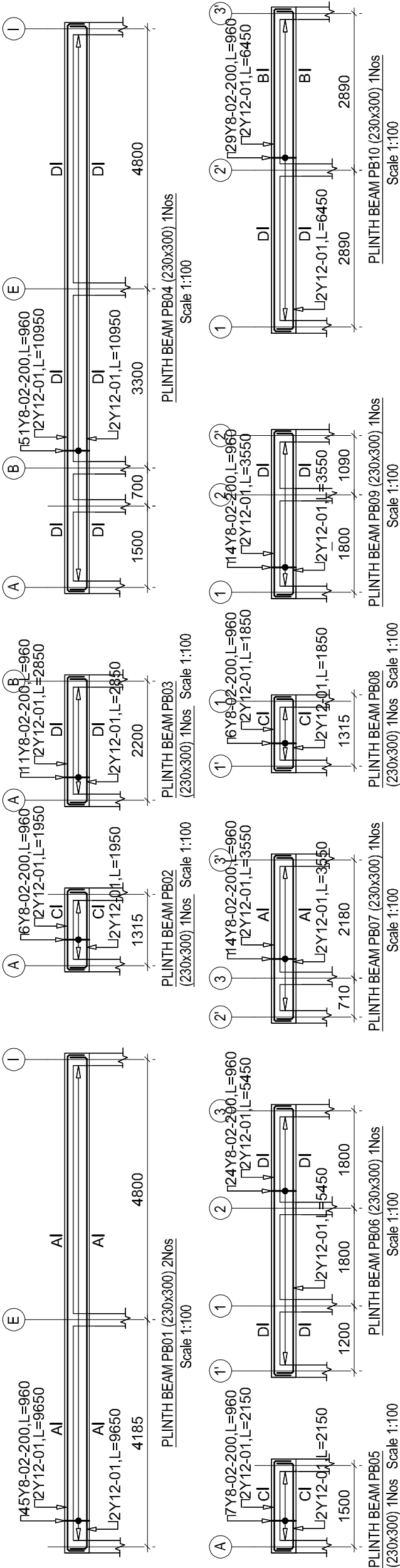
Drawn by: J.M.S

Date: 2022

Scale:

Drawing No:STR.CR

Sheet: 04/09



NOTE:-

1. All dimensions are in millimetres unless otherwise 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 where by fy = 460N/mm².
5. Bars lap length should be at least 50 times the diameter of the bars lapped. 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:

• Slabs25mm

• Beams25mm

• Columns25mm

• Footings50mm
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:
TOILET FOR 150 GIRLS WITH
FACILITY FOR DISABLED AND
SPECIAL ROOM - DRY AREA

SLAB REINFORCEMENT DETAILS
(REVISED -1)

DRAWING USE:

For Building permit:

For Construction:

✓

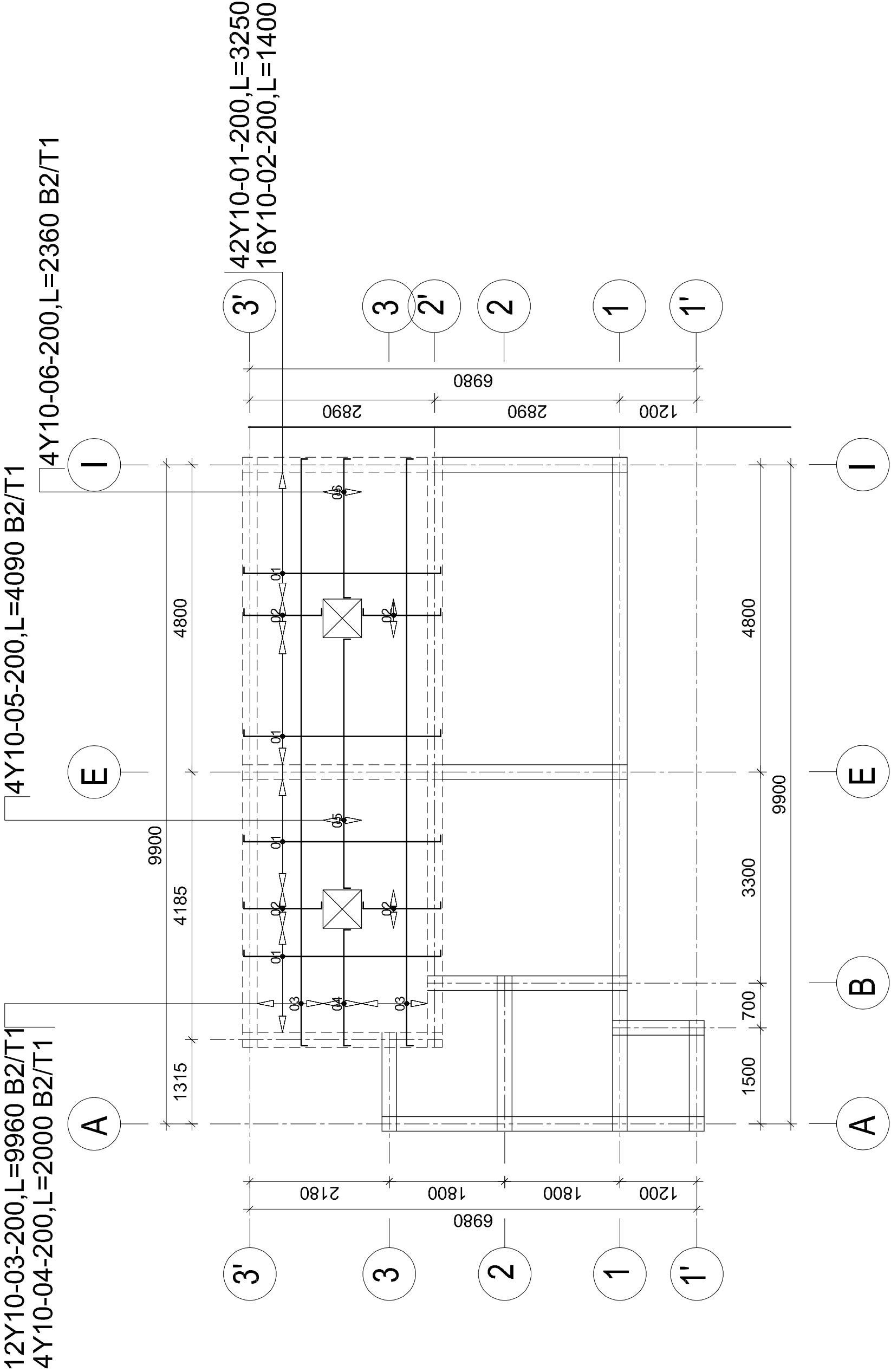
Drawn by: J.M.S

Date: 2022

Scale:

Drawing No:\$STR.CR

Sheet: 05/09



SLABS REINFORCEMENTS DETAILS
Scale 1:100

NOTE:

1. All dimensions are in millimetres unless otherwise 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. Structural Engineer shall be furnished with copies of the manufactures 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:

• Slabs25mm

• Beams25mm

• Columns25mm

• 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:

TOILET FOR 150 GIRLS WITH
FACILITY FOR DISABLED AND
SPECIAL ROOM - DRY AREA

ROOF TRUSS LAYOUT PLAN
AND DETAILS

(REVISED -1)

DRAWING USE:

For Building permit:

For Construction:

Drawn by:

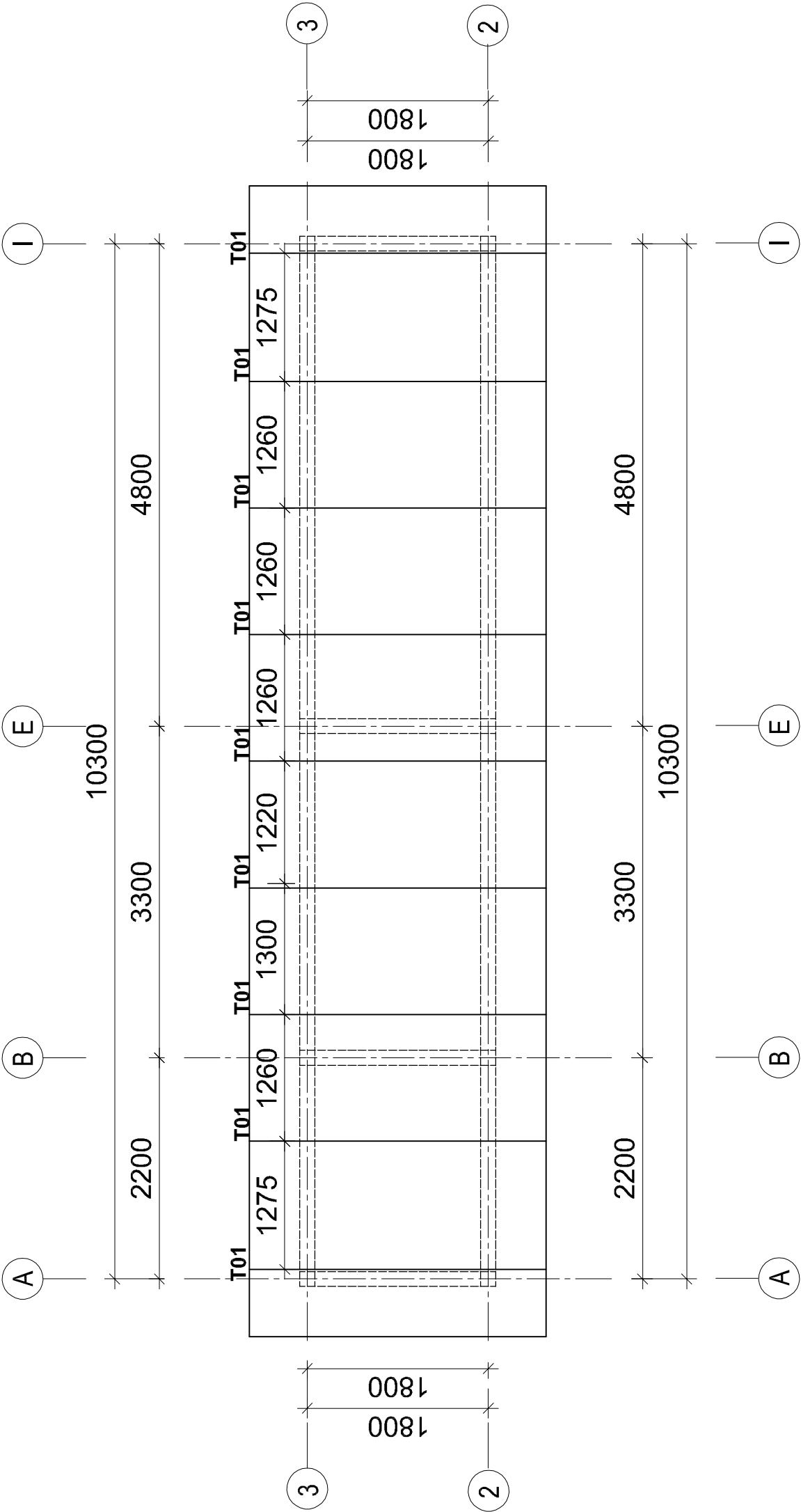
J.M.S

Date: 2022

Scale:

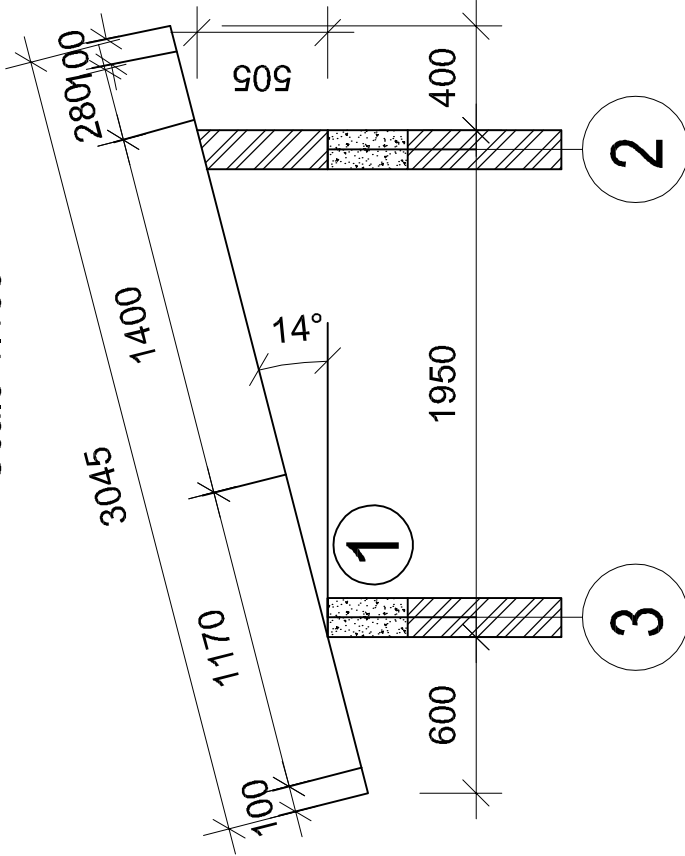
Drawing No:STR.CR

Sheet: 07/09



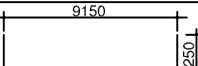
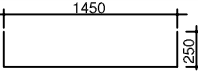
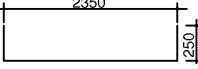
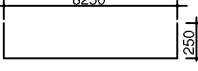
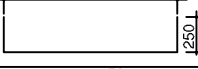
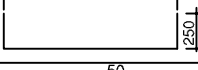
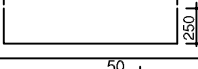
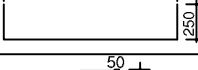
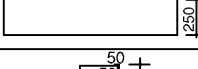
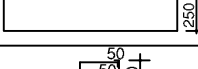
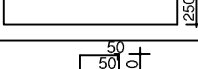
ROOF TRUSS LAYOUT PLAN

Scale 1:100



ROOF TRUSS TO1; 9Nos.

Scale 1:100

Page 1/2	Bar Bending Schedule							
	PROVISION OF PHYSICAL FACILITIES FOR PRIMARY SCHOOLS - TOILET FOR 150 GIRLS WITH FACILITY FOR DISABLED AND SPECIAL ROOM - DRY AREA (PLINTH 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)	NOTE
PLINTH BEAM PB01	2	01	Y12	9650	8	77.2		
PLINTH BEAM PB01	2	02	Y8	960	90	86.4		
PLINTH BEAM PB02	1	01	Y12	1950	4	7.8		
PLINTH BEAM PB02	1	02	Y8	960	6	5.76		
PLINTH BEAM PB03	1	01	Y12	2850	4	11.4		
PLINTH BEAM PB03	1	02	Y8	960	11	10.56		
PLINTH BEAM PB04	1	01	Y12	10950	4	43.8		
PLINTH BEAM PB04	1	02	Y8	960	51	48.96		
PLINTH BEAM PB05	1	01	Y12	2150	4	8.6		
PLINTH BEAM PB05	1	02	Y8	960	42	40.32		
PLINTH BEAM PB06	1	01	Y12	5450	4	21.8		
PLINTH BEAM PB06	1	02	Y8	960	24	23.04		
PLINTH BEAM PB07	1	01	Y12	3550	4	14.2		
PLINTH BEAM PB07	1	02	Y8	960	14	13.44		
PLINTH BEAM PB08	1	01	Y12	1850	4	7.4		
PLINTH BEAM PB08	1	02	Y8	960	6	5.76		
PLINTH BEAM PB09	1	01	Y12	3550	4	14.2		
PLINTH BEAM PB09	1	02	Y8	960	14	13.44		
PLINTH BEAM PB10	1	01	Y12	6450	4	25.8		
PLINTH BEAM PB10	1	02	Y8	960	29	27.84		
PLINTH BEAM PB11	1	01	Y12	6450	4	25.8		
PLINTH BEAM PB11	1	02	Y8	960	29	27.84		

[illegible]