# Proposed 16 Classroom & Computer Lab at Mohamed Jamaluddin School, Gn.Fuvahmulah (04 Storey)

ARCHITECTURAL & STRUCTURAL DRAWINGS



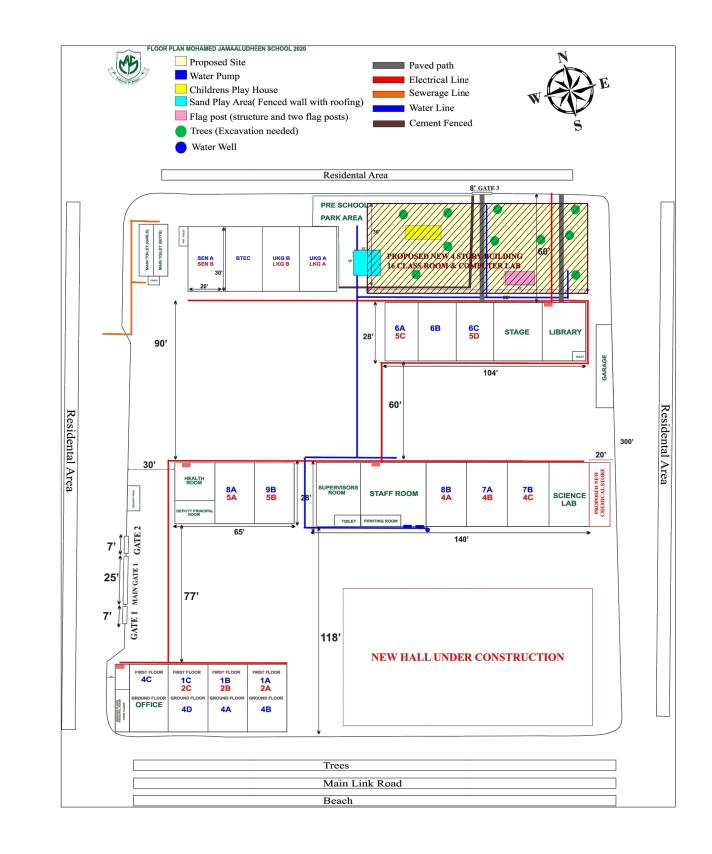


t:+9603315049 f:+9603310776 e : info@riyan.com.mv w : www.riyan.com.mv 3rd floor, H. Azum, Ameeneemagu, Male

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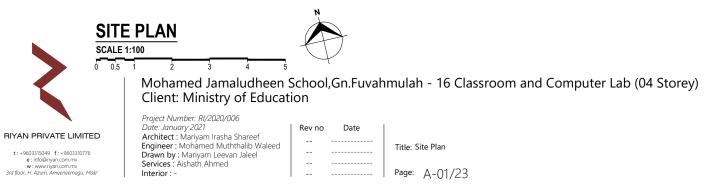
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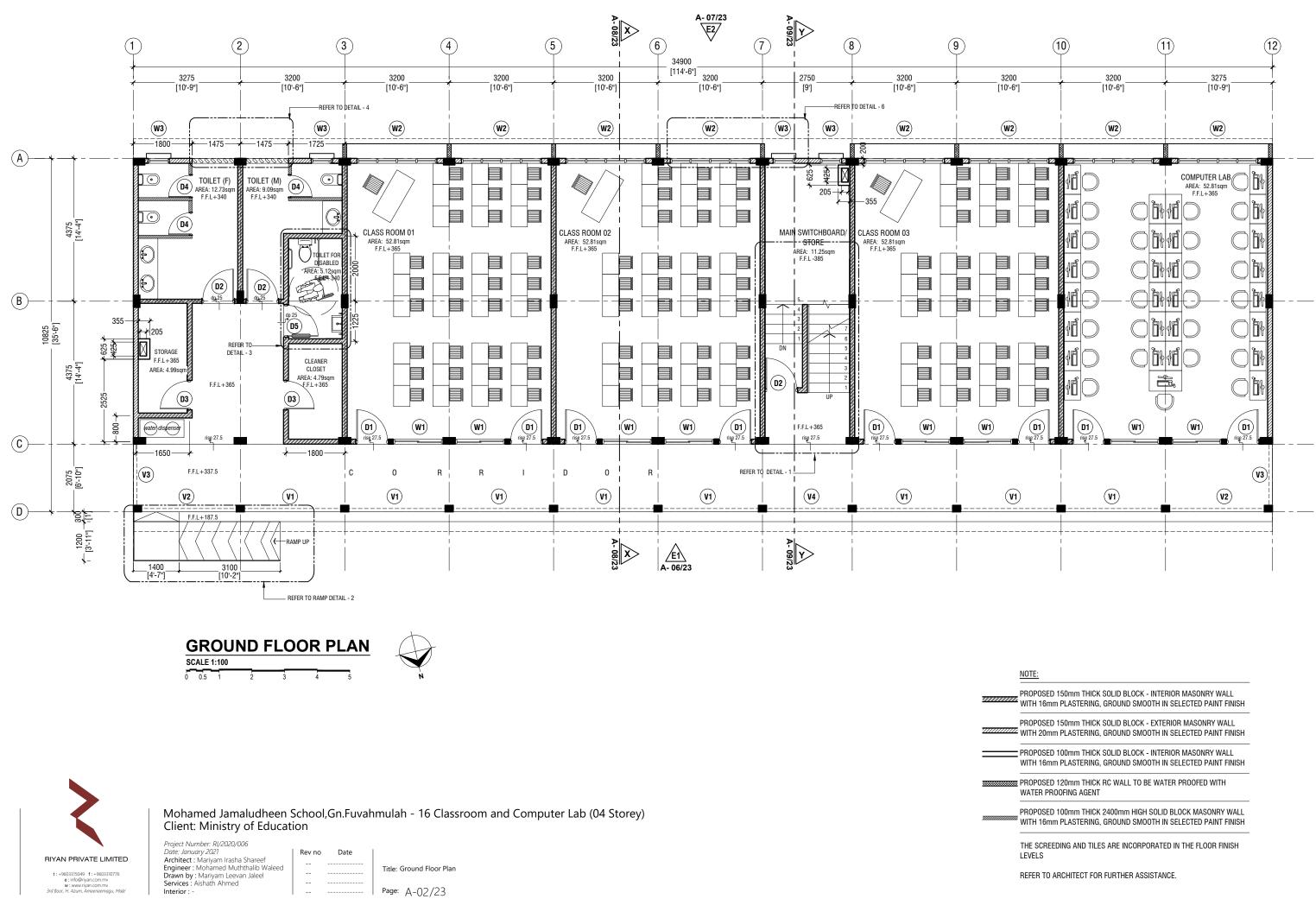




PROPOSED BUILDING LOCATION

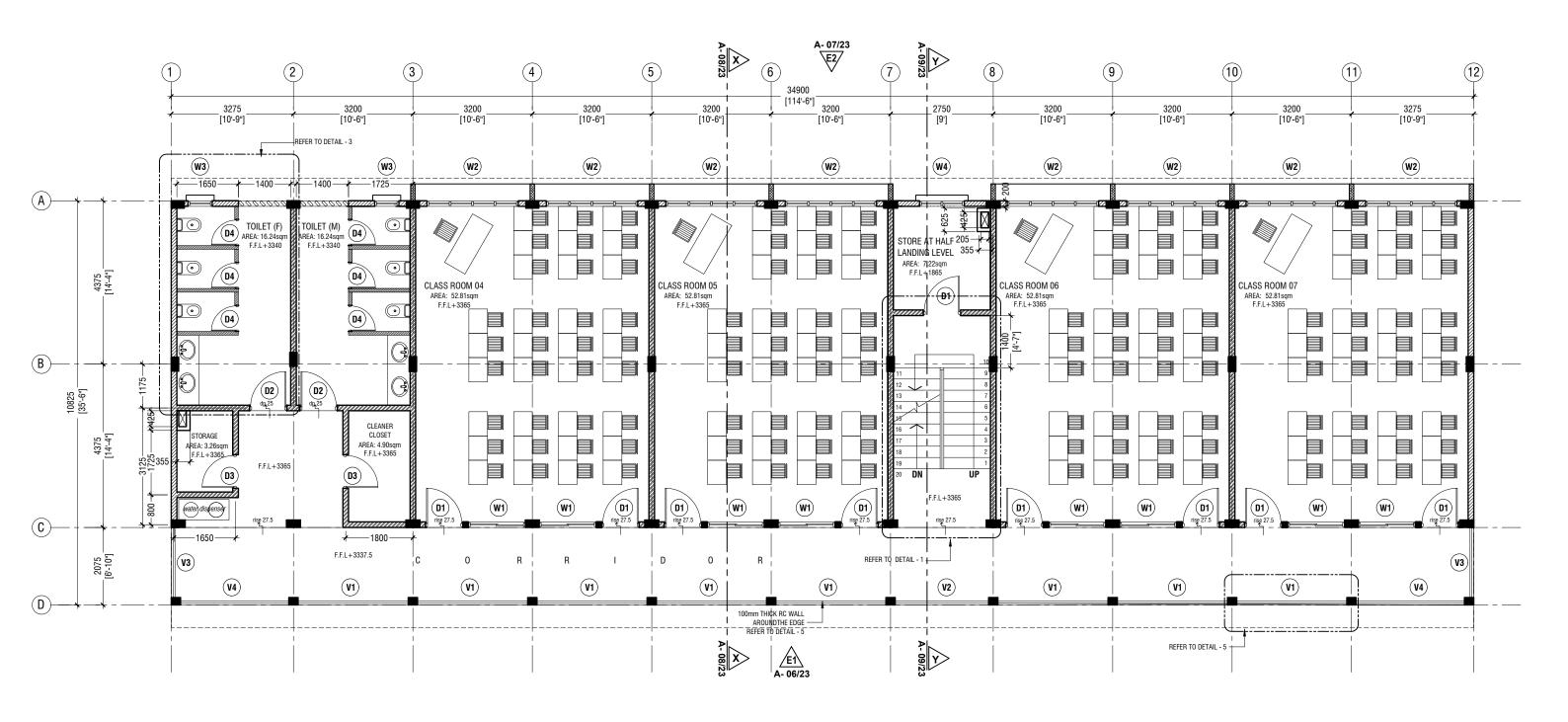
INFRASTRUCTURES THAT NEEDS TO BE DEMOLISHED ARE INCLUDED IN THE SITE PLAN

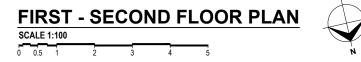




Page: A-02/23 Interior : The contents of these drawings remain as a property of Riyan Private Limited. Any use other that those expressly stated is a violation of this copyright

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Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

 Project Number: RI/2020/006
 Rev no
 Date

 Date: January 2021
 Rev no
 Date

 Architect : Mariyam Irasha Shareef
 - - 

 Engineer : Mohamed Muththalib Waleed
 - - 

 Drawn by : Mariyam Leevan Jaleel
 - - 

 Services : Aishath Ahmed
 - - 

 Interior : - Page: A-03/23

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#### NOTE:

PROPOSED 150mm THICK SOLID BLOCK - INTERIOR MASONRY WALL WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

PROPOSED 150mm THICK SOLID BLOCK - EXTERIOR MASONRY WALL  $^{\rm Z}$  WITH 20mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

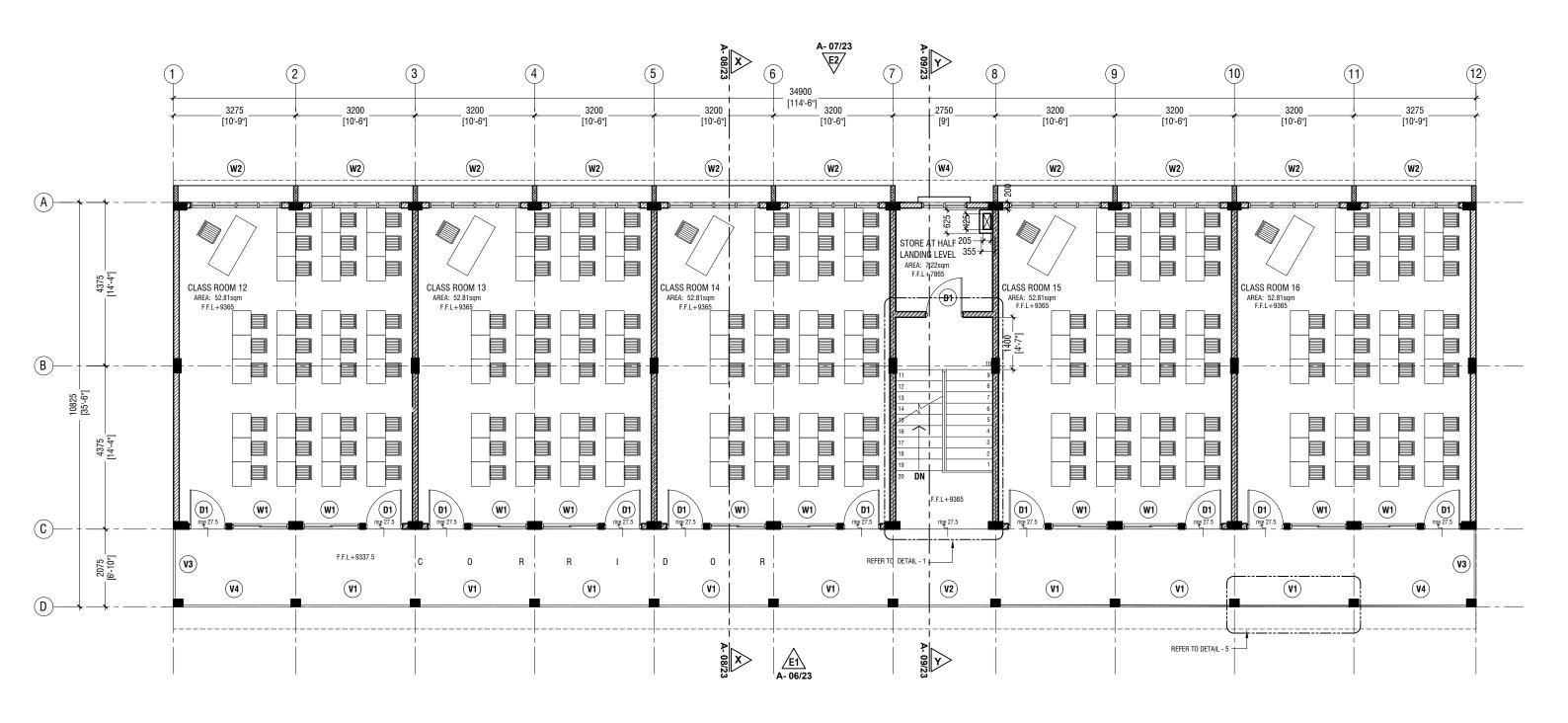
PROPOSED 100mm THICK SOLID BLOCK - INTERIOR MASONRY WALL WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

WATER PROOFING AGENT

PROPOSED 100mm THICK 2400mm HIGH SOLID BLOCK MASONRY WALL WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

THE SCREEDING AND TILES ARE INCORPORATED IN THE FLOOR FINISH LEVELS

REFER TO ARCHITECT FOR FURTHER ASSISTANCE.



1	<sup>-</sup> HI	RD	FLC	DOR	PLA	١N
S	CALE	1:100				
0	0.5	1	2	3	4	5





Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

 Project Number: RI/2020/006
 Rev no
 Date

 Date: January 2021
 Rev no
 Date

 Architect : Mariyam Irasha Shareef
 - - 

 Engineer : Mohamed Muththalib Waleed
 - - 

 Drawn by : Mariyam Leevan Jaleel
 - - 

 Services : Aishath Ahmed
 - - 

 Interior : - Page: A-04/23

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#### NOTE:

11111111111111

PROPOSED 150mm THICK SOLID BLOCK - INTERIOR MASONRY WALL <sup>4</sup> WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

PROPOSED 150mm THICK SOLID BLOCK - EXTERIOR MASONRY WALL  $^{\rm Z}$  WITH 20mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

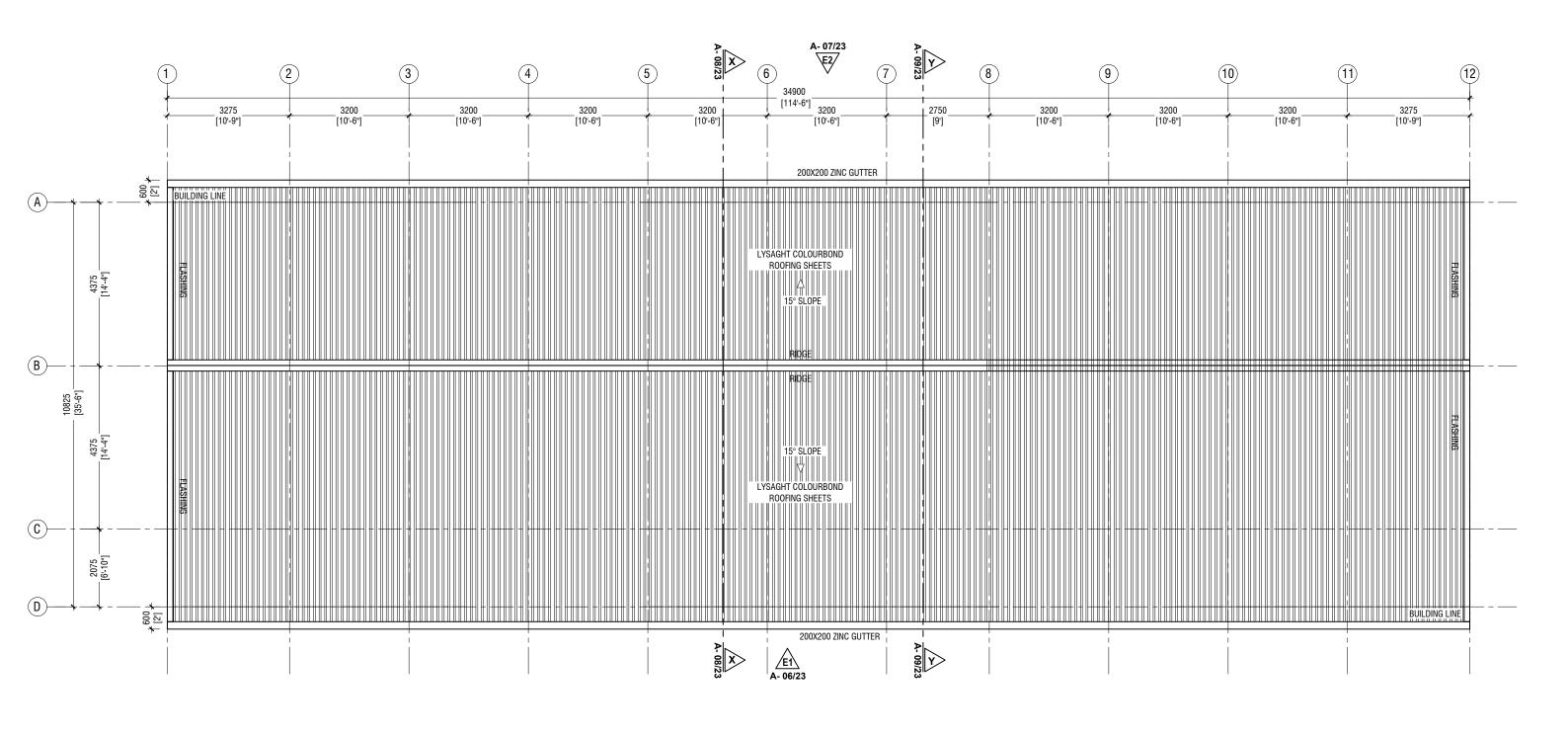
PROPOSED 100mm THICK SOLID BLOCK - INTERIOR MASONRY WALL WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

WATER PROOFED 120mm THICK RC WALL TO BE WATER PROOFED WITH WATER PROOFING AGENT

PROPOSED 100mm THICK 2400mm HIGH SOLID BLOCK MASONRY WALL  $^{\rm Z}$  WITH 16mm PLASTERING, GROUND SMOOTH IN SELECTED PAINT FINISH

THE SCREEDING AND TILES ARE INCORPORATED IN THE FLOOR FINISH LEVELS

REFER TO ARCHITECT FOR FURTHER ASSISTANCE.





NOTE:

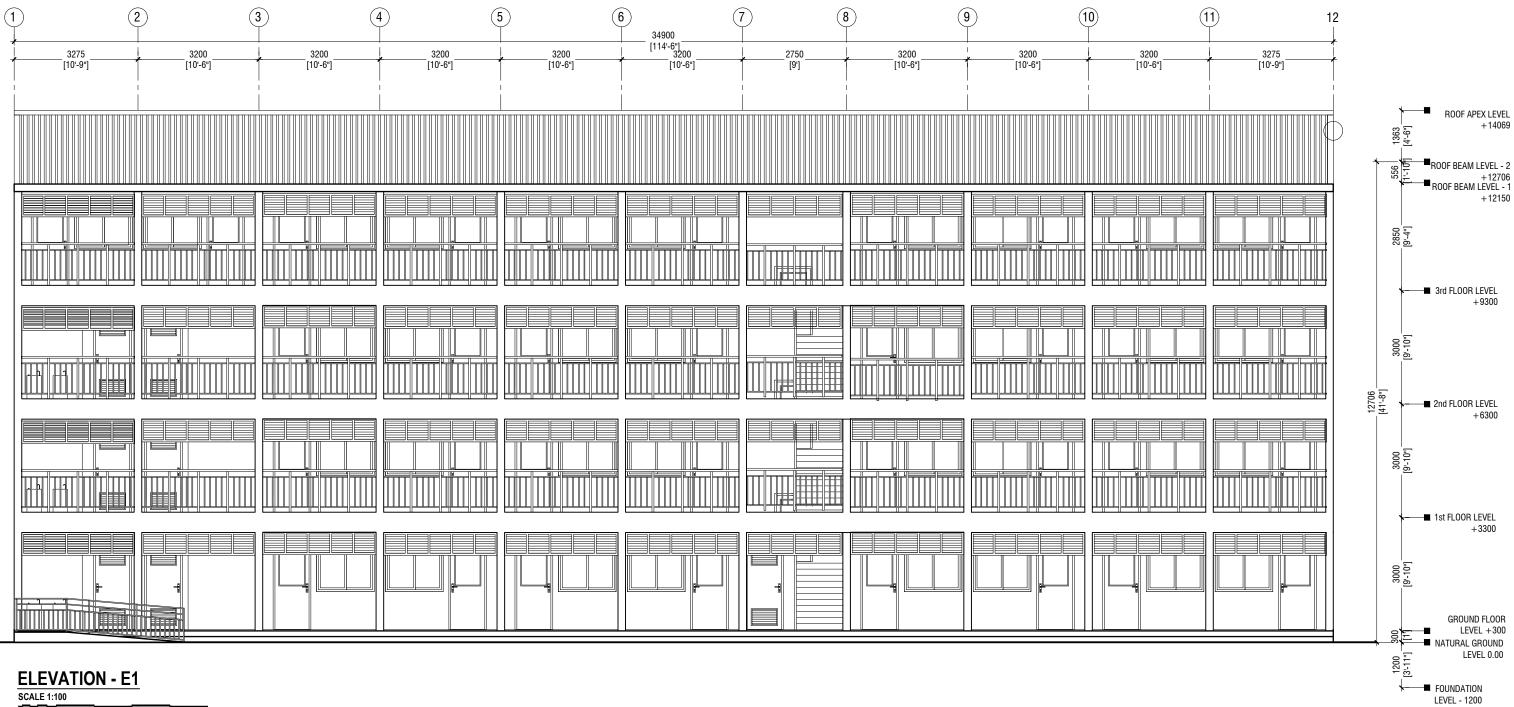


Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Sonziore : Aichath Ahmod Rev no Date ---Title: Roof Plan ---Services : Aishath Ahmed Interior : ----Page: A-05/23 ---

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ROOF MATERIAL: LYSAGHT COLOURBOND ROOFING SHEETS ROOF SLOPE : 15° ROOF OVERHANG: 600mm

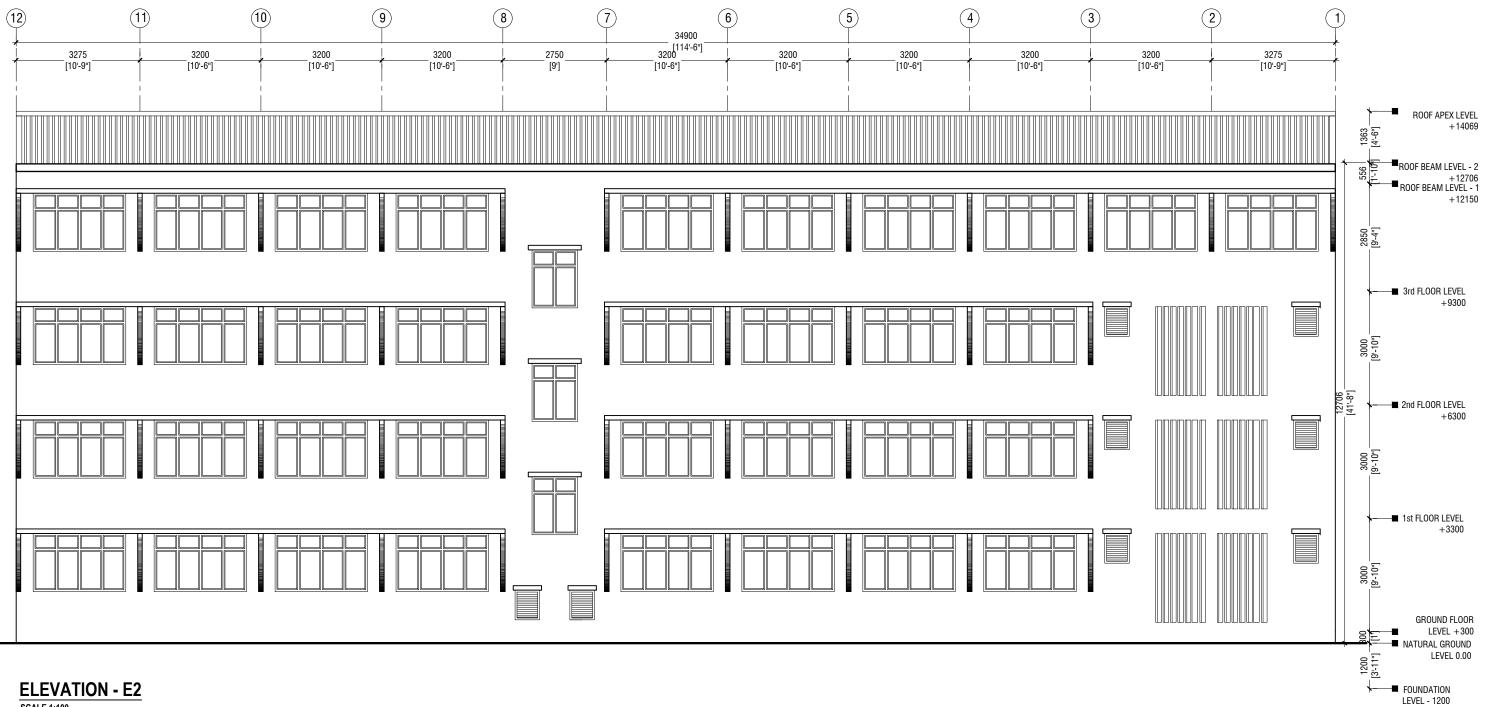


0 0.5 1 2 3 4



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date -- -----Title: Front Elevation - E1 -- ----------Page: A-06/23



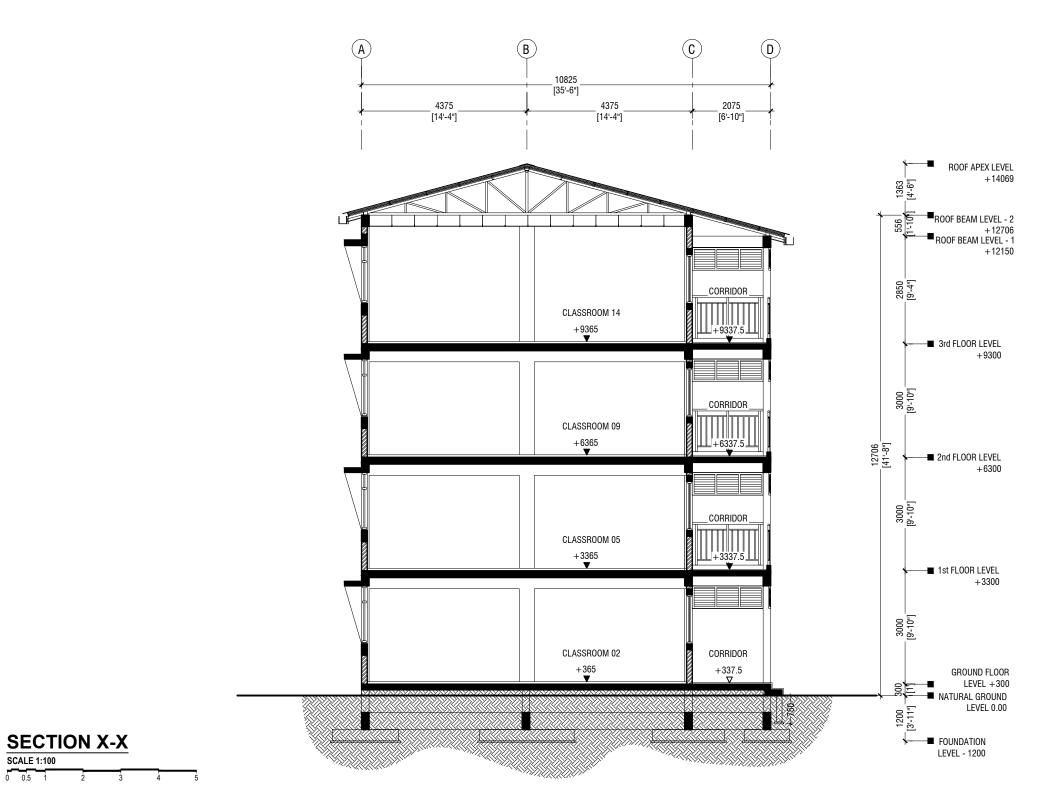
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0 0.5 1 4 5 2 3



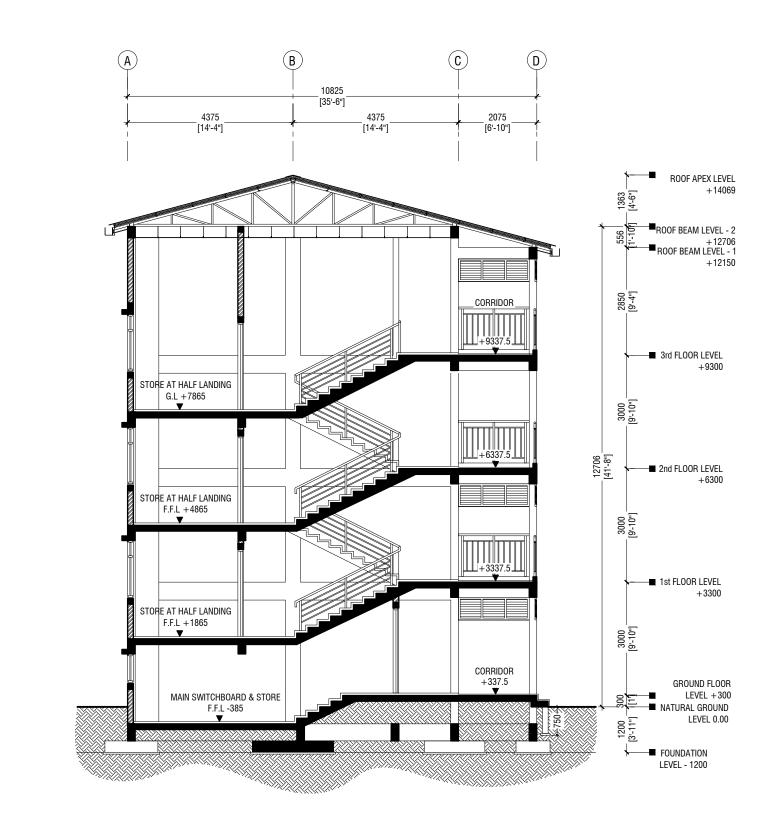
Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

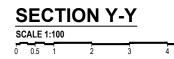
Rev no Date ---Title: Elevation - E2 ------Page: A-07/23 ---





Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education







Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

 Project Number: RI/20006
 Rev no
 Date

 Date: January 2021
 Rev no
 Date

 Architect : Mariyam Irasha Shareef
 - - 

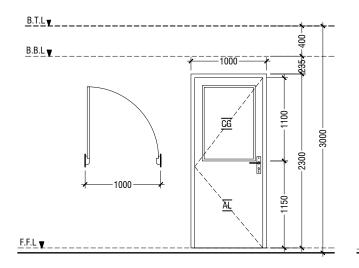
 Engineer : Mohamed Muththalib Waleed
 - - 

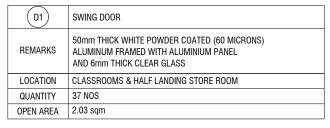
 Drawn by : Mariyam Leevan Jaleel
 - - 

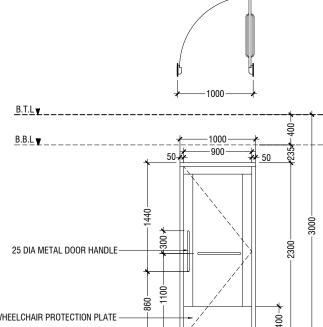
 Services : Aishath Ahmed
 - - 

 Interior : - Page: A-09/23

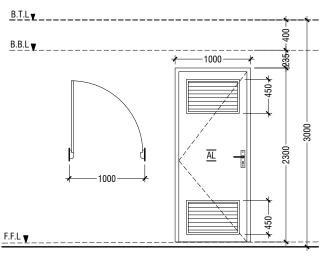
5



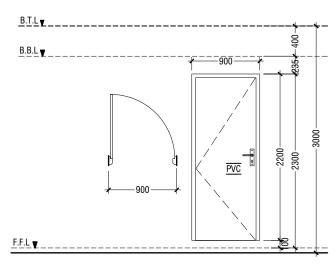




D5	SWING DOOR
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL
LOCATION	DISABLED TOILET
QUANTITY	01 NOS
OPEN AREA	2.03 sqm



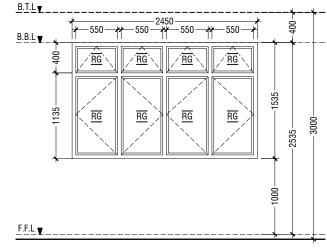
REMARKS       50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL AND ALUMINUM LOUVERS         LOCATION       TOILETS & MAIN SWITCH BOARD STORE         QUANTITY       07 NOS	D2	SWING DOOR WITH ALUMINIUM LOUVERS
QUANTITY 07 NOS	REMARKS	ALUMINUM FRAMED WITH ALUMINIUM PANEL
	LOCATION	TOILETS & MAIN SWITCH BOARD STORE
	QUANTITY	07 NOS
OPEN AREA 2.03 sqm	OPEN AREA	2.03 sqm



<u>B.T.L</u>	
<u>B.B.L</u> ▼	
<u>F.F.L</u>	
(D4)	PVC SW

(D3)	PVC SWING DOOR		(D4)	PVC SWIN
REMARKS	PVC WHITE FRAME AND PANEL		REMARKS	PVC WHIT
LOCATION	STORE & CLEANER CLOSET		LOCATION	TOILETS S
QUANTITY	06 NOS	]	QUANTITY	15 NOS
OPEN AREA	1.29 SQM		OPEN AREA	1.17 SQM





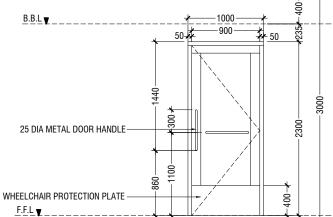
<u>B.T.L</u> ▼	
<u>B.B.L</u> ▼	

F.F.L **▼**\_\_\_

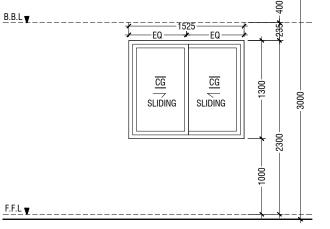
(W3)

REMARKS

QUANTITY 08 NOS



D5	SWING DOOR
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL
LOCATION	DISABLED TOILET
QUANTITY	01 NOS
OPEN AREA	2.03 sqm



1525

SLIDING WINDOW
50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINIUM PANEL AND 6mm THICK CLEAR GLASS
CLASSROOMS
34 NOS
0.83 sqm

*	<del>_</del> _
(W2)	SWING WINDOW
REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WINDOW WITH 6mm THICK REFLECTIVE GLASS
LOCATION	CLASSROOMS
QUANTITY	34 NOS
OPEN AREA	2.97 sqm

NOTE:-



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

B.T.L

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Consincer : Alsterk Alword Rev no Da -----Services : Aishath Ahmed ---Interior : ---

ate		
		0oor & Windov Schedule - 1
	Page:	A-10/23

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**DOOR & WINDOW SCHEDULE - 1** SCALE 1:50

1. FLOOR TO FLOOR HEIGHT VARIES AND WILL BE SUBJECTED TO CHANGES

4. ALL DOORS & WINDOWS TO BE CHECKED ON SITE BEFORE FABRICATION.

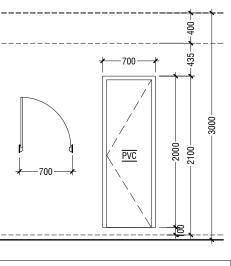
7. FOR ALL THE WINDOWS PUT A SILL BEAM BELOW THE WINDOW (SB)

2. MAINTAIN FLOOR TO WINDOW SILL STANDARD HEIGHT REGULATION OF 1M.

••••				
0 0.25 0.5	1	1.5	2	2.5

ABOVE THE DOOR / WINDOW.

3, REFER TO ARCHITECT FOR FURTHER ASSISTANCE.



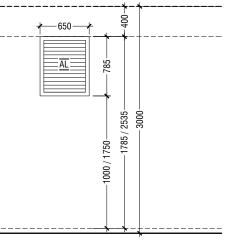
### WING DOOR

REMARKS PVC WHITE FRAME AND PANEL

## LOCATION TOILETS STALLS

OPEN AREA 1.17 SQM





## WINDOW WITH ALUMINUM LOUVERS

50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS

#### LOCATION TOILETS & MAIN SWITCH BOARD STORE

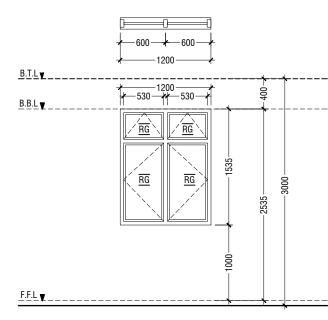
OPEN AREA 0.36 SQM

LEGEND: CG - CLEAR GLASS RG - REFLECTED GLASS AL - ALUMINIUM PVC - POLYVINYL CHLORIDE

5. ALL DOOR & WINDOWS VIEWED FROM EXTERIOR, FOR DOOR SWING, REFER TO FLOOR PLANS. 6. THE DOORS / WINDOWS WHICH DO NOT TOUCH THE BEAM SHALL HAVE A LINTEL BEAM (LB)

8. FOR SAFETY PURPOSES REFER TO TECHNICAL SPECIFICATIONS FOR GLASS THICKNESS.





50mm THICK WHITE POWDER COATED (60 MICRONS)

-2550-

\_\_\_\_\_2550 \_\_\_\_\_ \_EQ \_\_\_\_\_EQ \_\_\_\_EQ \_\_\_\_EQ \_\_\_\_EQ \_\_\_\_EQ \_\_\_\_

AL

<u>-</u><u>AL</u>\_

ALUMINUM FRAMED WINDOW WITH 6mm THICK

(W4)

REMARKS

<u>B.T.L</u>

<u>B.B.L</u>▼\_\_

F.F.L

 $(v_4)$ 

QUANTITY 3 NOS

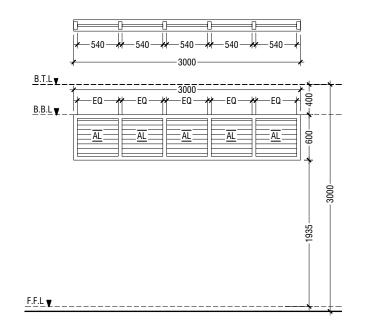
OPEN AREA 1.43 sqm

SWING WINDOW

REFLECTIVE GLASS LOCATION HALF LANDING STORE ROOM

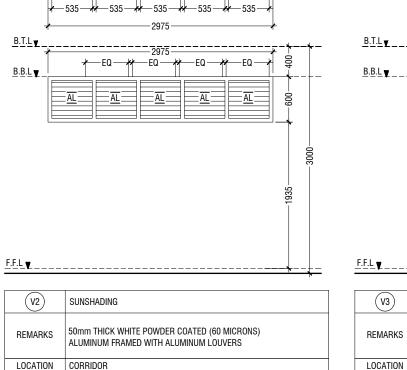
AL

SUNSHADING



50mm THICK WHITE POWDER COATED (60 MICRONS)

ALUMINUM FRAMED WITH ALUMINUM LOUVERS



QUANTITY

08 NOS

OPEN AREA 1.35 SQM

## SCHEDULE OF VENTILATION FOR MOHAMED JAMALUDDIN SCHOOL, GN.FUVAHMULAH

Room name/ Number	Room Areas (sqm) ( Specify centre to centre or clear)	Window (opening) number	Required opening areas (sqm)	Designed opening areas (sqm)	Open %
Ground Floor					
1 Classroom 1	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
2 Classroom 2	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
3 Classroom 3	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
4 Computer Lab	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
5 Toilet (F)	12.73	2000, 2002 & 200	W3 & RC FI		22.0070
6 Toilet (M)	9.09		W3 & RC FI		
7 Toilet for disabled	5.12		Mechanical Ven		
8 Main switchboard /store	11.25		Mechanical Ven	tilation	
First to Second Floor					
1 Classroom 4	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
2 Classroom 5	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
3 Classroom 6	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
4 Classroom 7	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
5 Toilet (F)	12.64		W3 & RC FI	NS	
6 Toilet (M)	12.65		W3 & RC FI	NS	
7 Store at half landing level	7.22	W4	0.72	1.43	19.81%
Third Floor					
1 Classroom 12	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
2 Classroom 13	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
3 Classroom 14	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
4 Classroom 15	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
5 Classroom 16	52.81	2W1, 2W2 & 2D1	5.28	11.66	22.08%
6 Toilet (F)	12.64		W3 & RC FI	NS	
7 Toilet (M)	12.65		W3 & RC FI	NS	
8 Store at half landing level	7.22	W4	0.72	1.43	19.81%

## **VENTILATION SCHEDULE**

LEGEND: CG - CLEAR GLASS RG - REFLECTED GLASS AL - ALUMINIUM PVC - POLYVINYL CHLORIDE

(V1)

REMARKS

LOCATION CORRIDOR

QUANTITY 32 NOS

OPEN AREA 1.35 SQM

SUNSHADING

#### NOTE:-

SCALE 1:50 0 0.25 0.5

00t

300

000

1. FLOOR TO FLOOR HEIGHT VARIES AND WILL BE SUBJECTED TO CHANGES

2. MAINTAIN FLOOR TO WINDOW SILL STANDARD HEIGHT REGULATION OF 1M.

3, REFER TO ARCHITECT FOR FURTHER ASSISTANCE.

1.5

4. ALL DOORS & WINDOWS TO BE CHECKED ON SITE BEFORE FABRICATION.

5. ALL DOOR & WINDOWS VIEWED FROM EXTERIOR. FOR DOOR SWING. REFER TO FLOOR PLANS. 6. THE DOORS / WINDOWS WHICH DO NOT TOUCH THE BEAM SHALL HAVE A LINTEL BEAM (LB) ABOVE THE DOOR / WINDOW.

2.5

7. FOR ALL THE WINDOWS PUT A SILL BEAM BELOW THE WINDOW (SB)

8. FOR SAFETY PURPOSES REFER TO TECHNICAL SPECIFICATIONS FOR GLASS THICKNESS.

**DOOR & WINDOW SCHEDULE - 2** 

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REMARKS	50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS
LOCATION	CORRIDOR
QUANTITY	04 NOS
OPEN AREA	1.15 SQM

Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel RIYAN PRIVATE LIMITED t:+9603315049 f:+9603310776 e:info@riyan.com.mv

Rev no Date ----

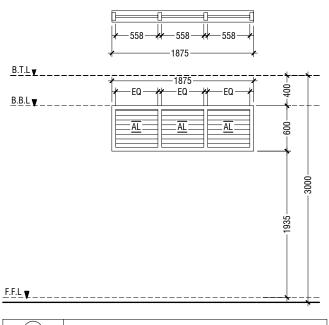
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Title: Door/Window Schedule

2 & Ventilation Schedule

w : www.riyan.com.mv 3rd floor, H. Azum, Ameeneemaa Interior : -Page: A-11/23 ---The contents of these drawings remain as a property of Riyan Private Limited. Any use other that those expressly stated is a violation of this copyright

Services : Aishath Ahmed

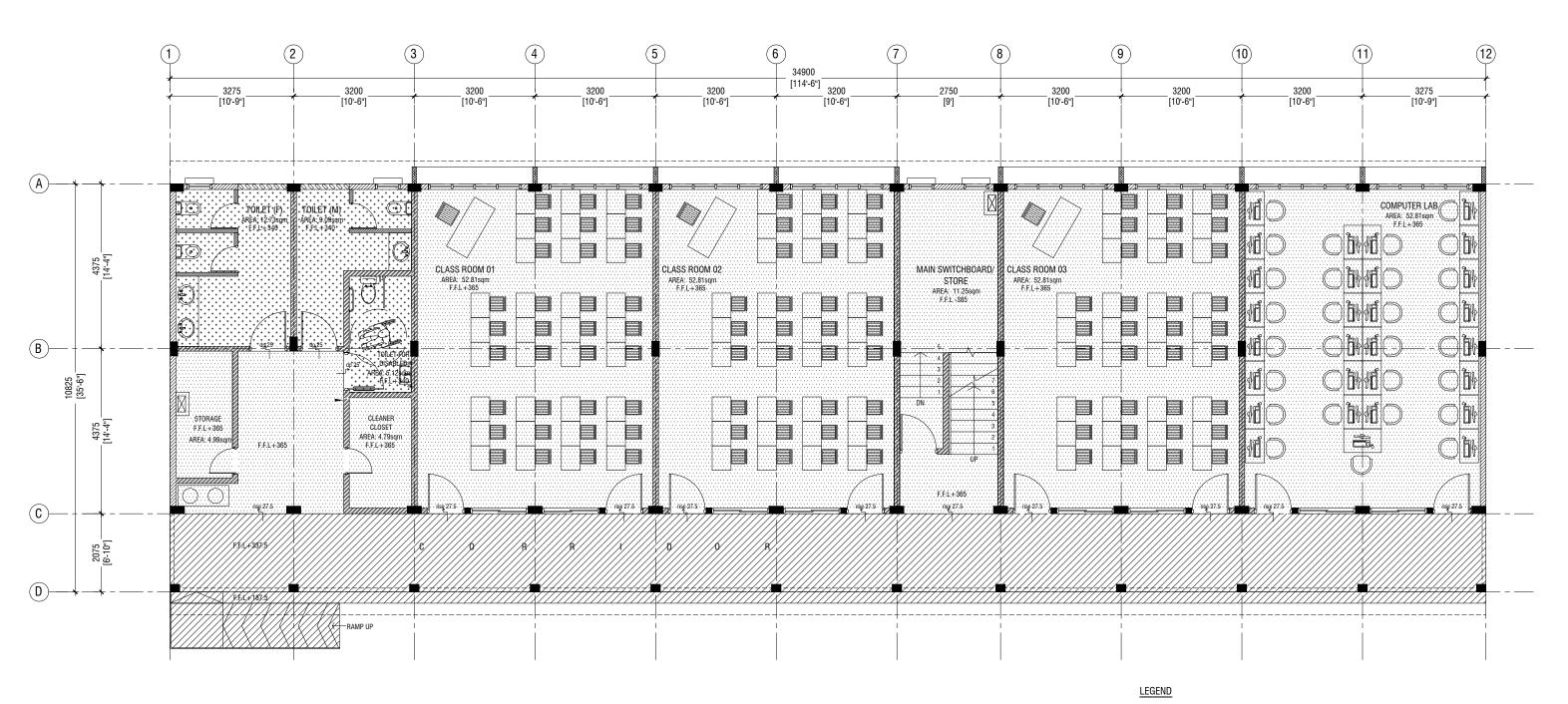


#### SUNSHADING

50mm THICK WHITE POWDER COATED (60 MICRONS) ALUMINUM FRAMED WITH ALUMINUM LOUVERS

LOCATION CORRIDOR QUANTITY 08 NOS

OPEN AREA 0.84 SQM



GROUND FLOOR FINISHES PLAN SCALE 1:100

0 0.5 1 2 3 4 5



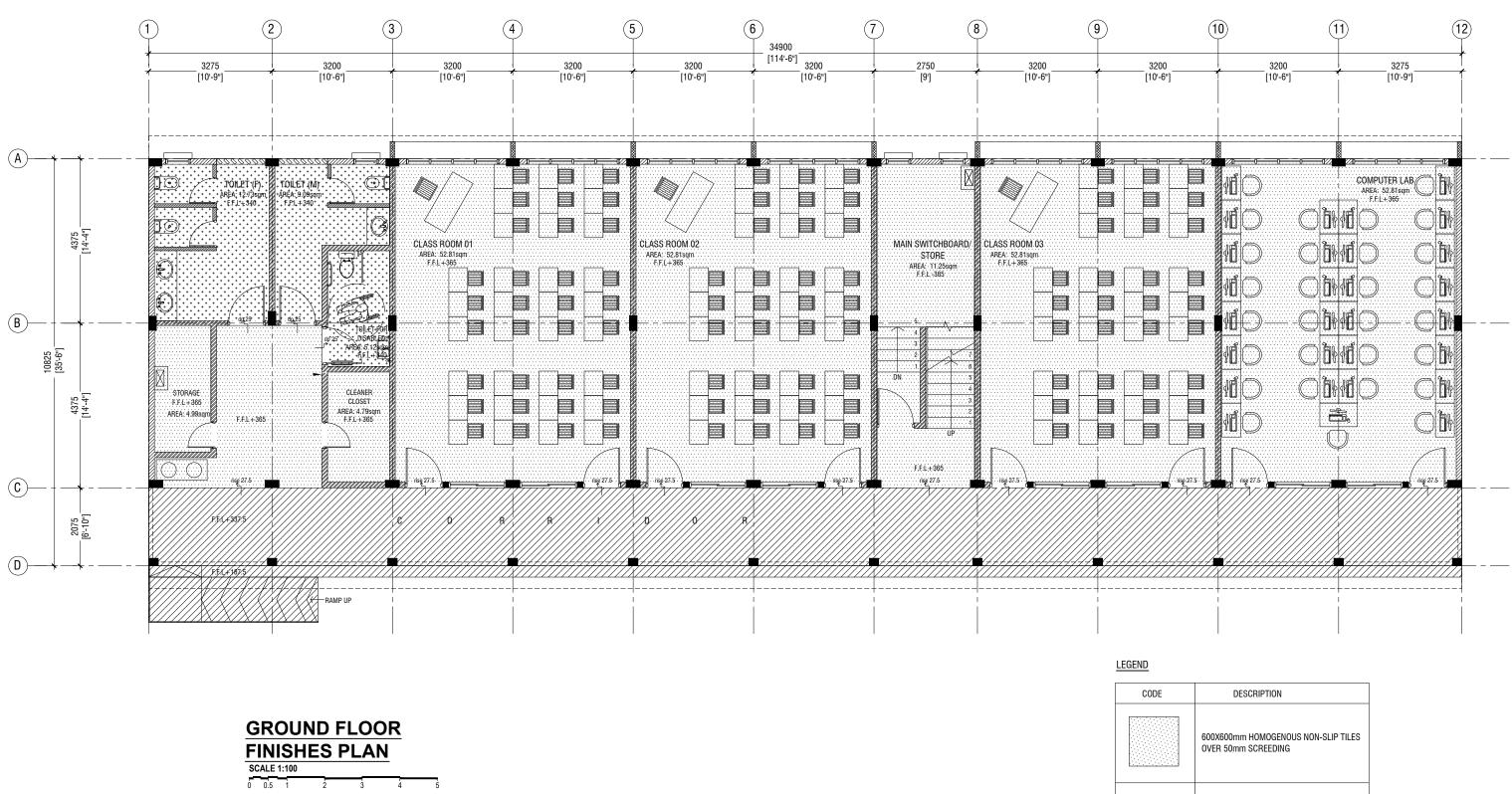
Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

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DESCRIPTION
600X600mm HOMOGENOUS NON-SLIP TILES OVER 50mm SCREEDING
35mm NORMAL SCREEDING WITH 2.5mm SELF LEVELING CEMENT WITH EPOXY FLOOR PAINT (2 COATS OF EPOXY)
300X300mm HOMOGENOUS NON-SLIP TILES OVER 25mm SCREEDING

CODE

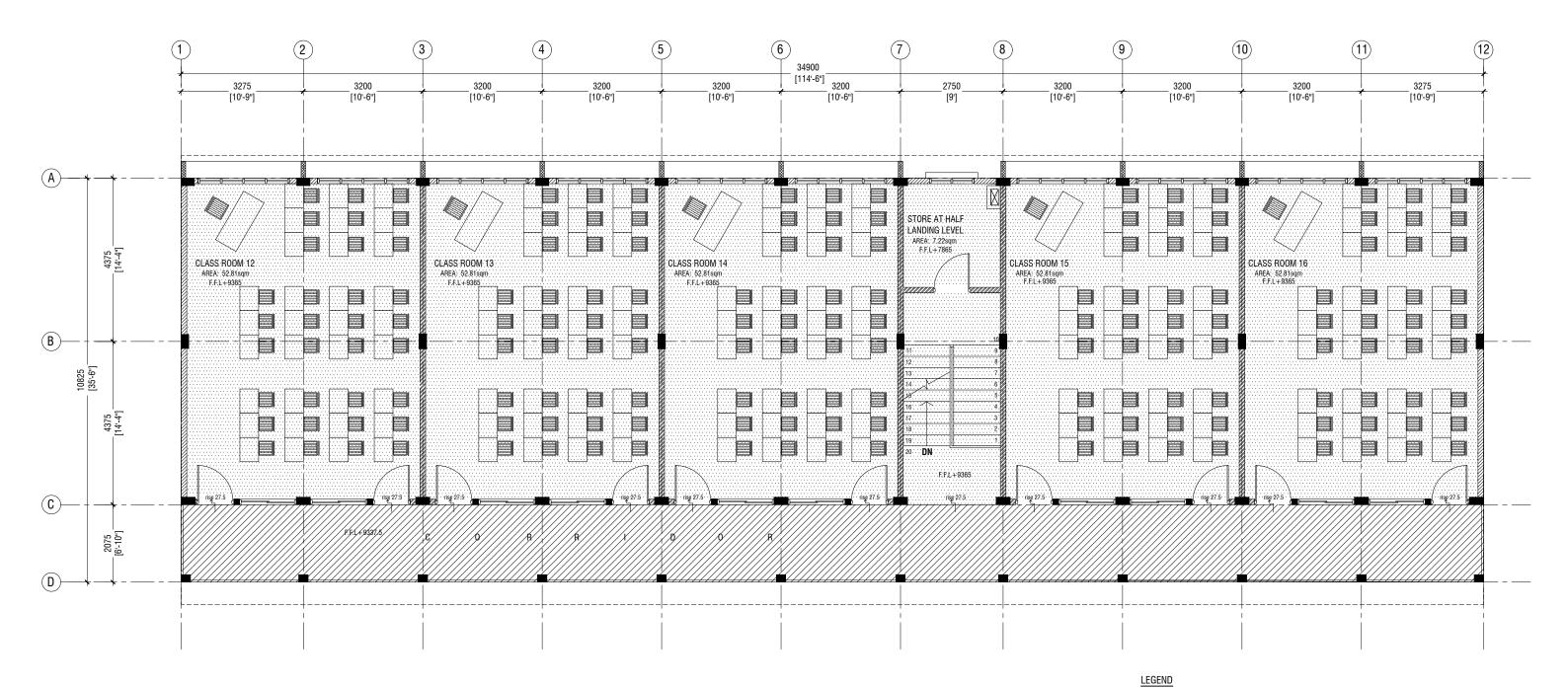
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Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

	DESCRIPTION
	600X600mm HOMOGENOUS NON-SLIP TILES OVER 50mm SCREEDING
	35mm NORMAL SCREEDING WITH 2.5mm SELF LEVELING CEMENT WITH EPOXY FLOOR PAINT (2 COATS OF EPOXY)
* * * * * * * * * * * * * * * * * * *	300X300mm HOMOGENOUS NON-SLIP TILES OVER 25mm SCREEDING
3	



THIRD FLOOR FLOOR FINISHES PLAN



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

 Project Number: RI/2020/006

 Date: January 2021

 Architect : Mariyam Irasha Shareef

 Engineer : Mohamed Muththalib Waleed

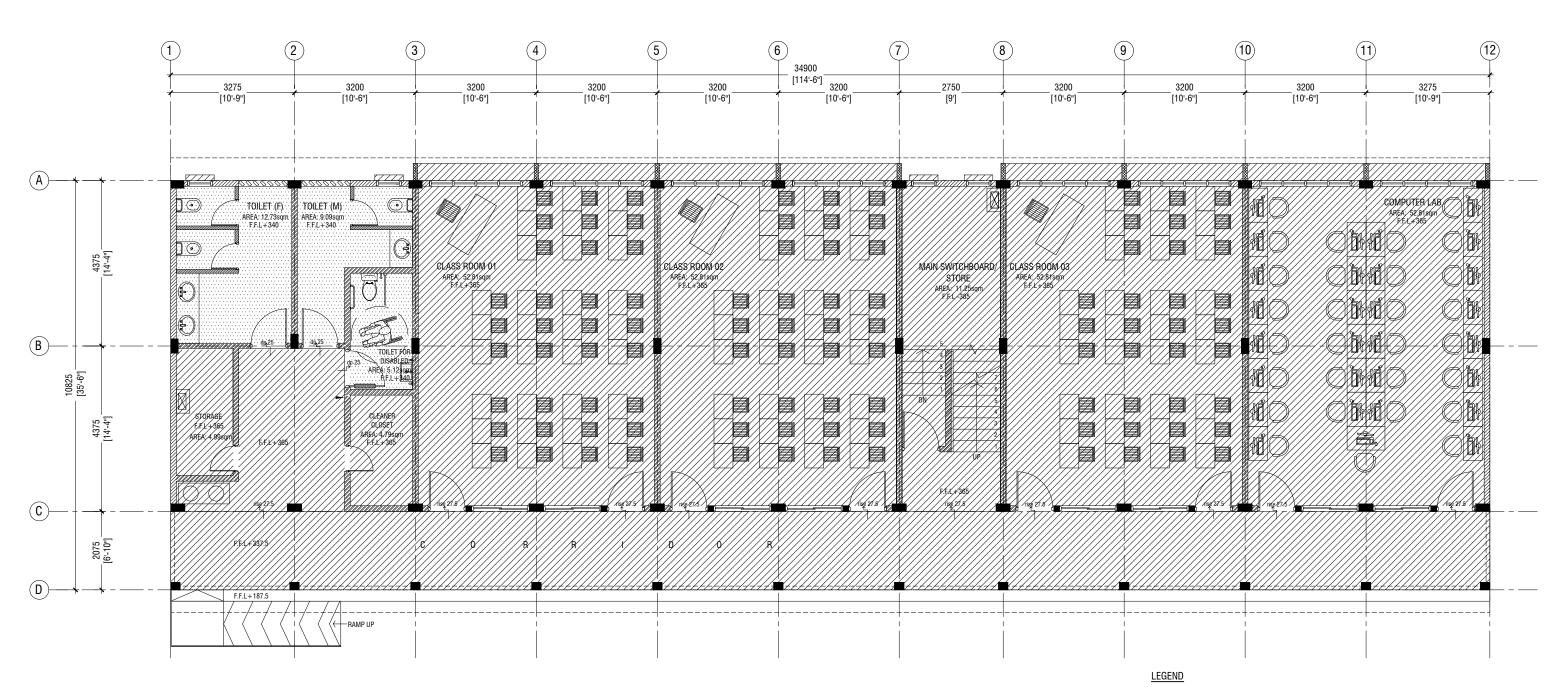
 Drawn by : Mariyam Leevan Jaleel

 Services : Aishath Ahmed

 Interior : 

Page: A-14/23

CODE	DESCRIPTION	
	600X600mm HOMOGENOUS NON-SLIP TILES OVER 50mm SCREEDING	
	35mm NORMAL SCREEDING WITH 2.5mm SELF LEVELING CEMENT WITH EPOXY FLOOR PAINT (2 COATS OF EPOXY)	
	300X300mm HOMOGENOUS NON-SLIP TILES OVER 25mm SCREEDING	

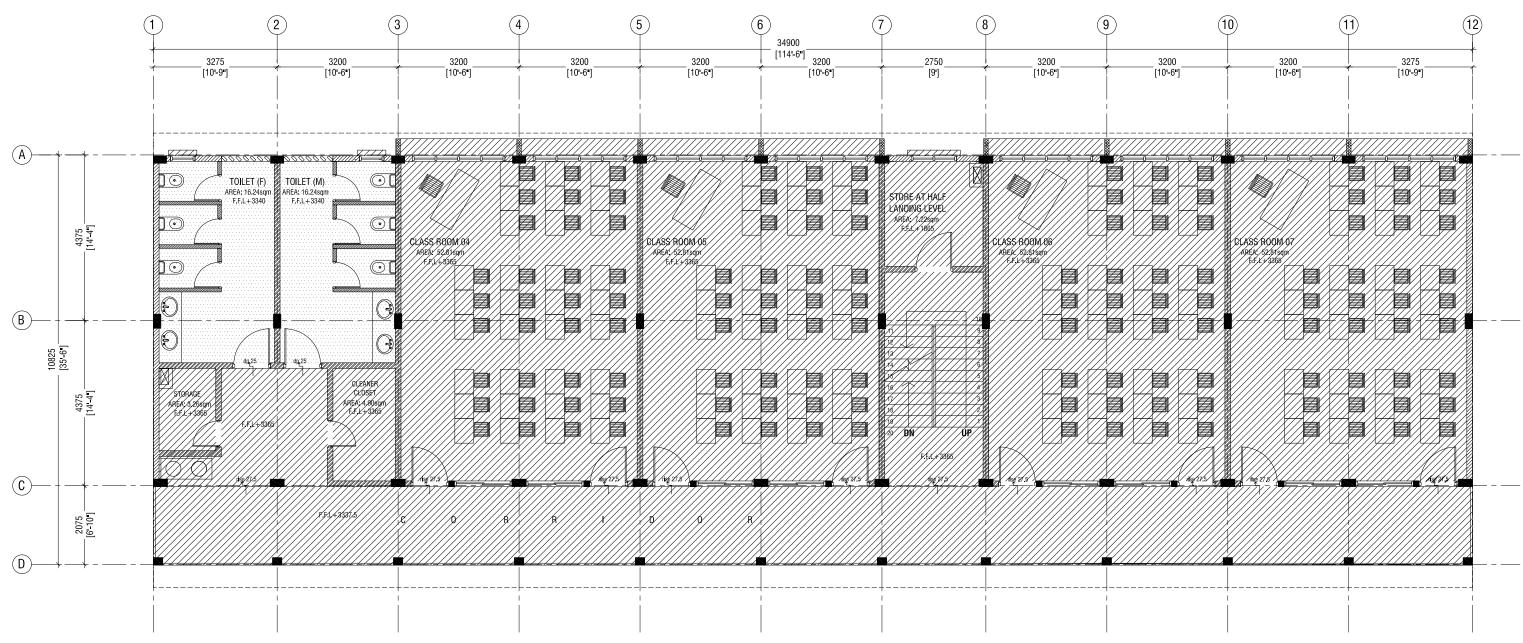


GROUND FLOOR REFLECTED CEILING PLAN SCALE 1:100 0 0.5 1 2 3 4 5



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

CODE	DESCRIPTION
	EXPOSED SLAB SOFFIT TO BE GROUND SMOOTH IN SELECT PAINT FINISH ( ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)
	6mm THICK CEMENT BOARD ON ROOF EAVE/GABLE CEILING (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)



## **FIRST - SECOND FLOOR REFLECTED CEILING PLAN** SCALE 1:100

0 0.5 1 5 4 2 3

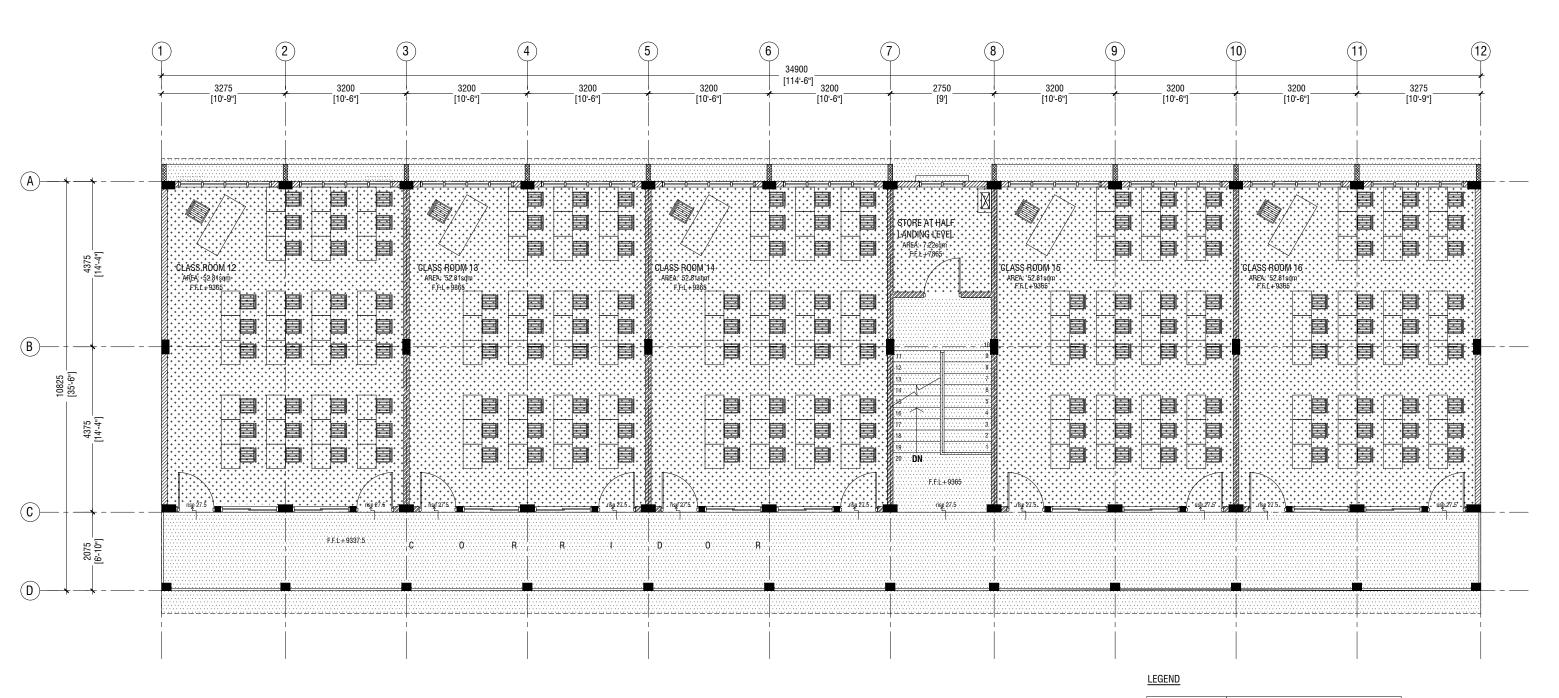


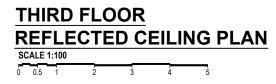
Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Date Rev no Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel --Title: First - Second Floor Reflected ceiling Plan -----Services : Aishath Ahmed Interior : -Page: A-16/23 ---

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CODE	DESCRIPTION	
	EXPOSED SLAB SOFFIT TO BE GROUND SMOOTH IN SELECT PAINT FINISH ( ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)	
	6mm THICK CEMENT BOARD ON ROOF EAVE/GABLE CEILING (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)	

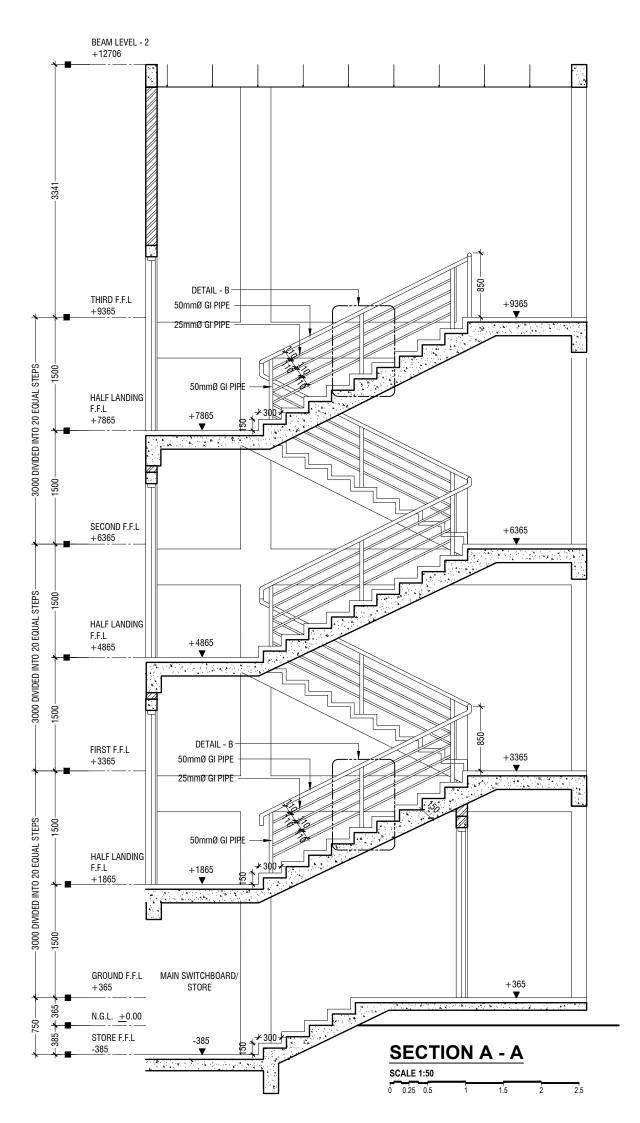


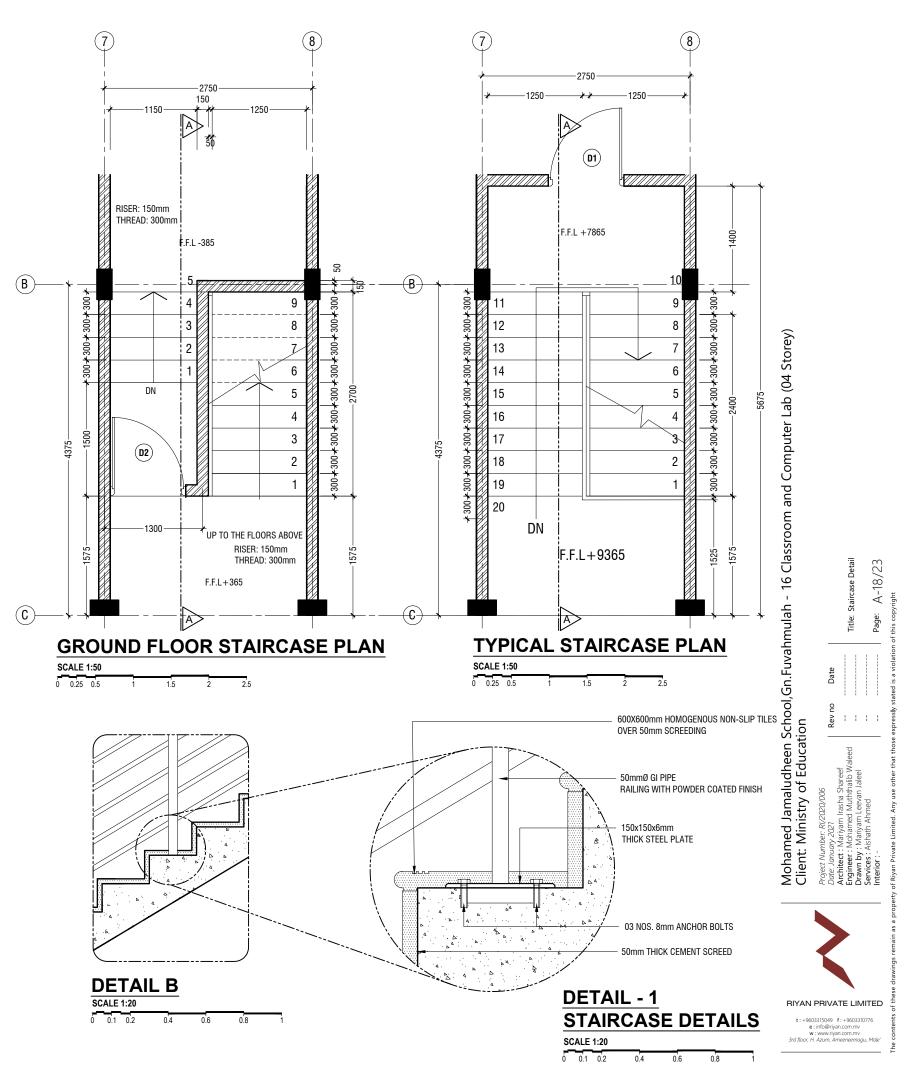


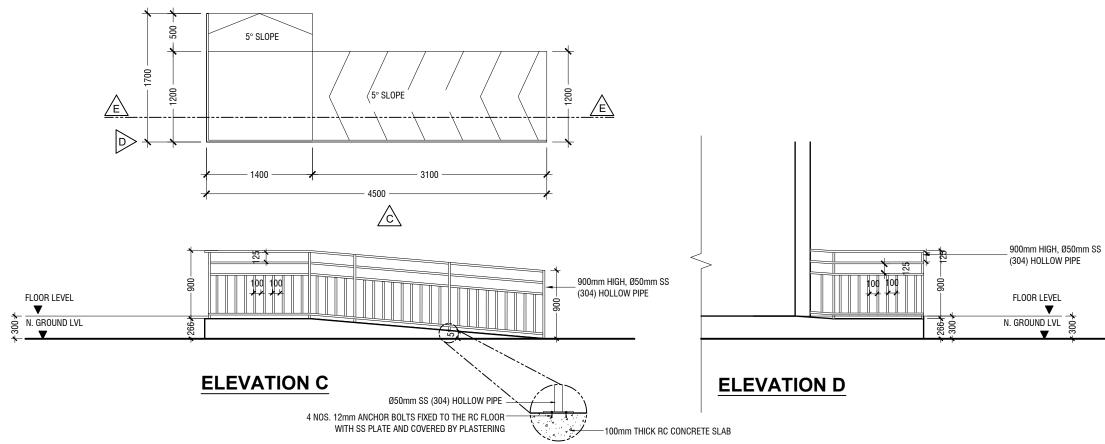


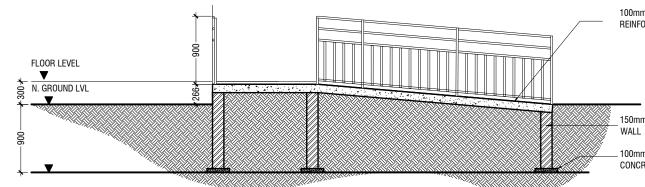
Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

CODE	DESCRIPTION
	9mm THICK FIXED CEILING 'BORAL' OR EQUIVALENT PLASTERBOARD CEILING SYSTEM WITH TIMBER FRAMES, APPLIED WITH GROUND SMOOTH FINISH IN SELECTED PAINT
	6mm THICK CEMENT BOARD ON ROOF EAVE/GABLE CEILING (ONE COAT OF PUTTY FOLLOWED BY SEALER AND 2 COATS OF PAINT)









DETAIL - 2 MAIN ENTRANCE RAMP DETAILS SCALE 1:50 0 0.25 0.5 2 2.5 1.5 1

SECTION E-E



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

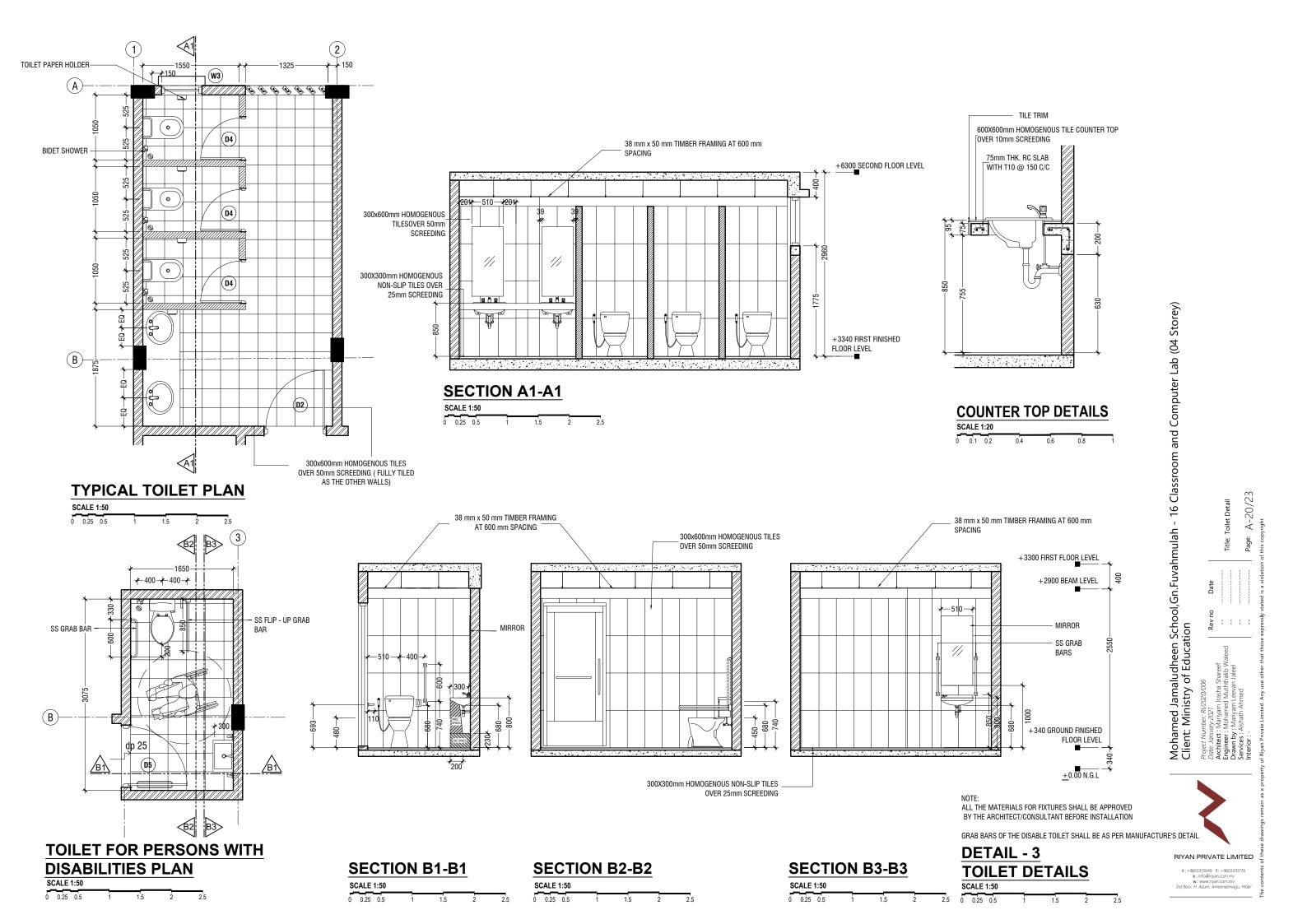
Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date --Title: Ramp Details ------Page: A-19/23 ---

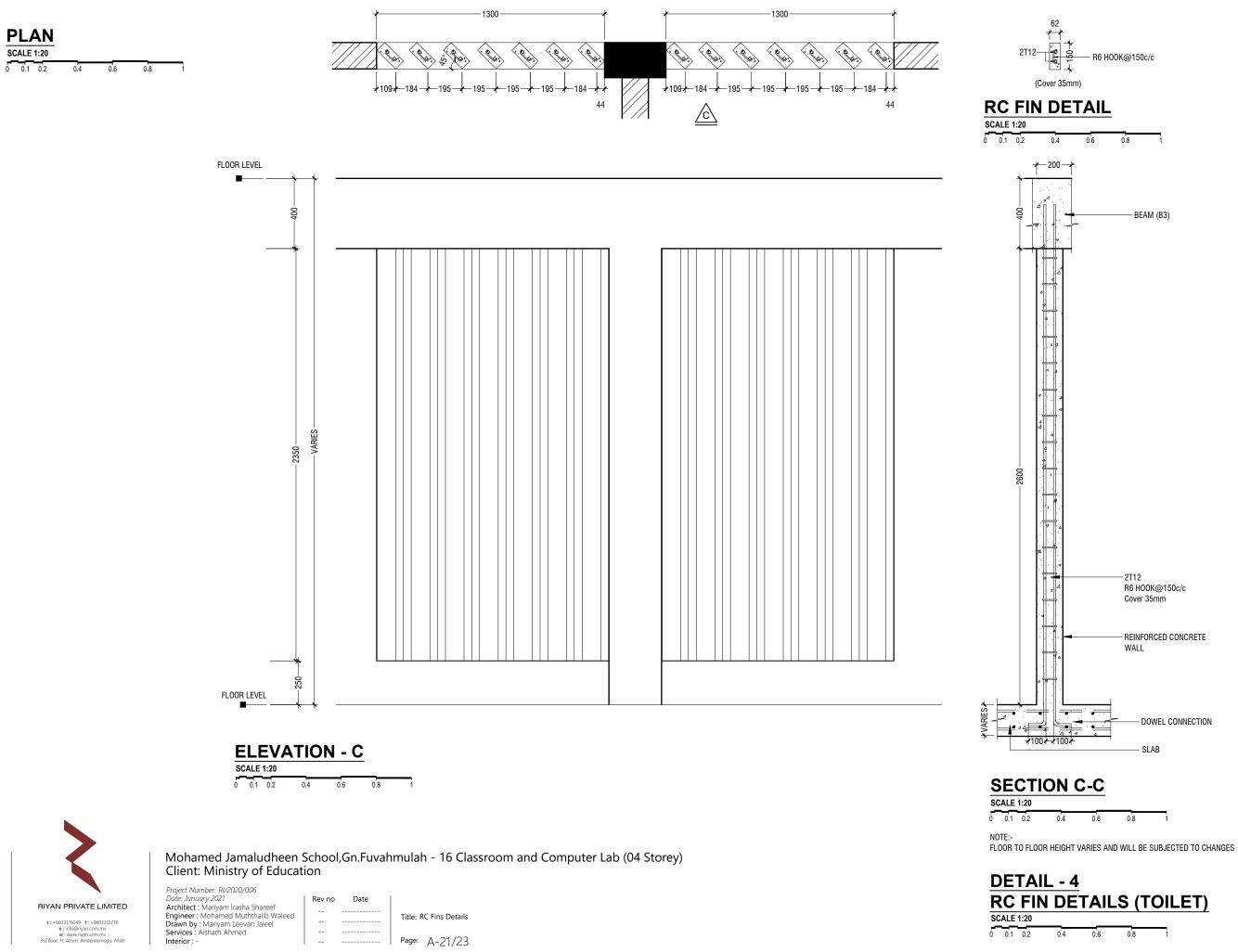
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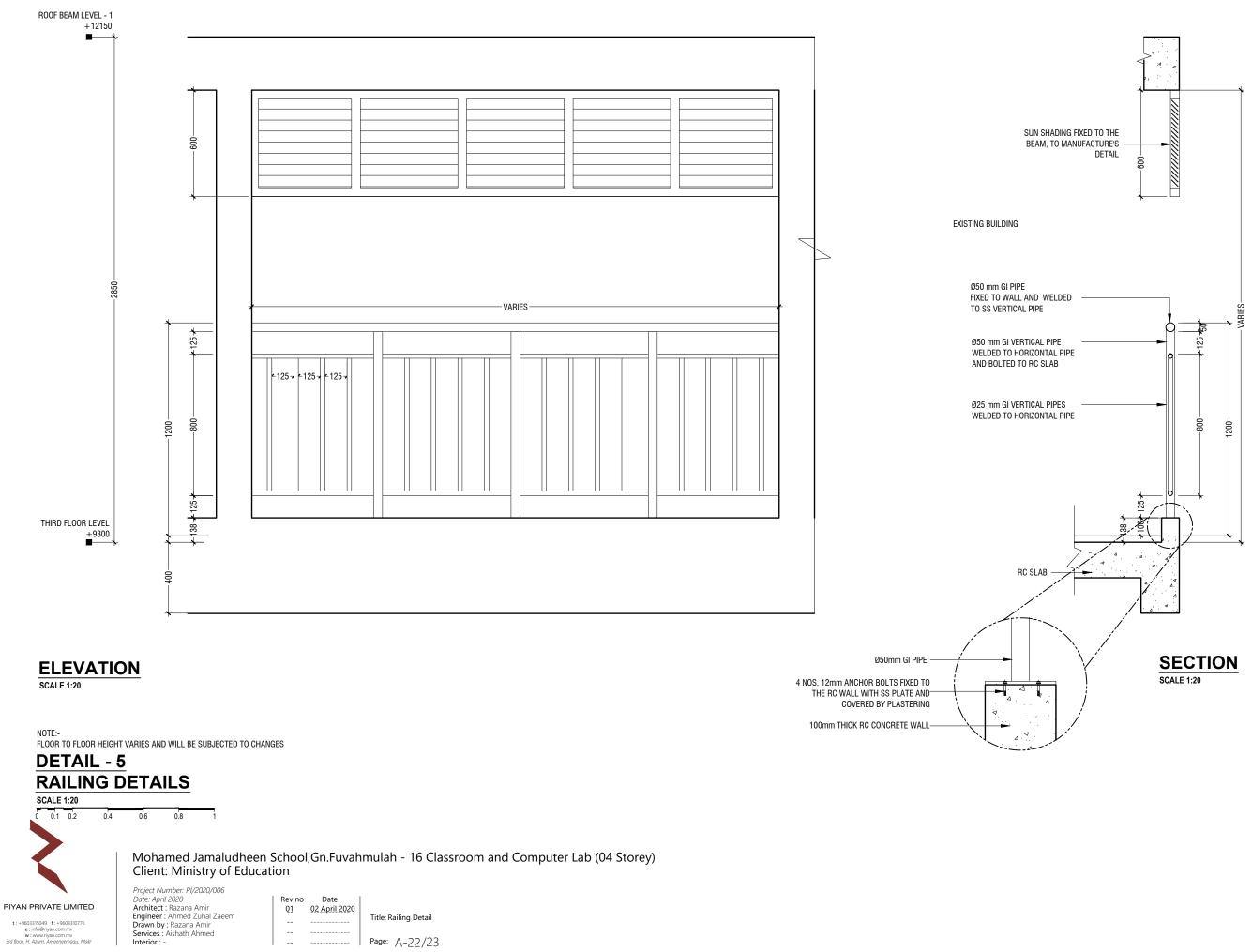
100mm THK RC SLAB ON FILL REINFORCED WITH T10@200 C/C BW

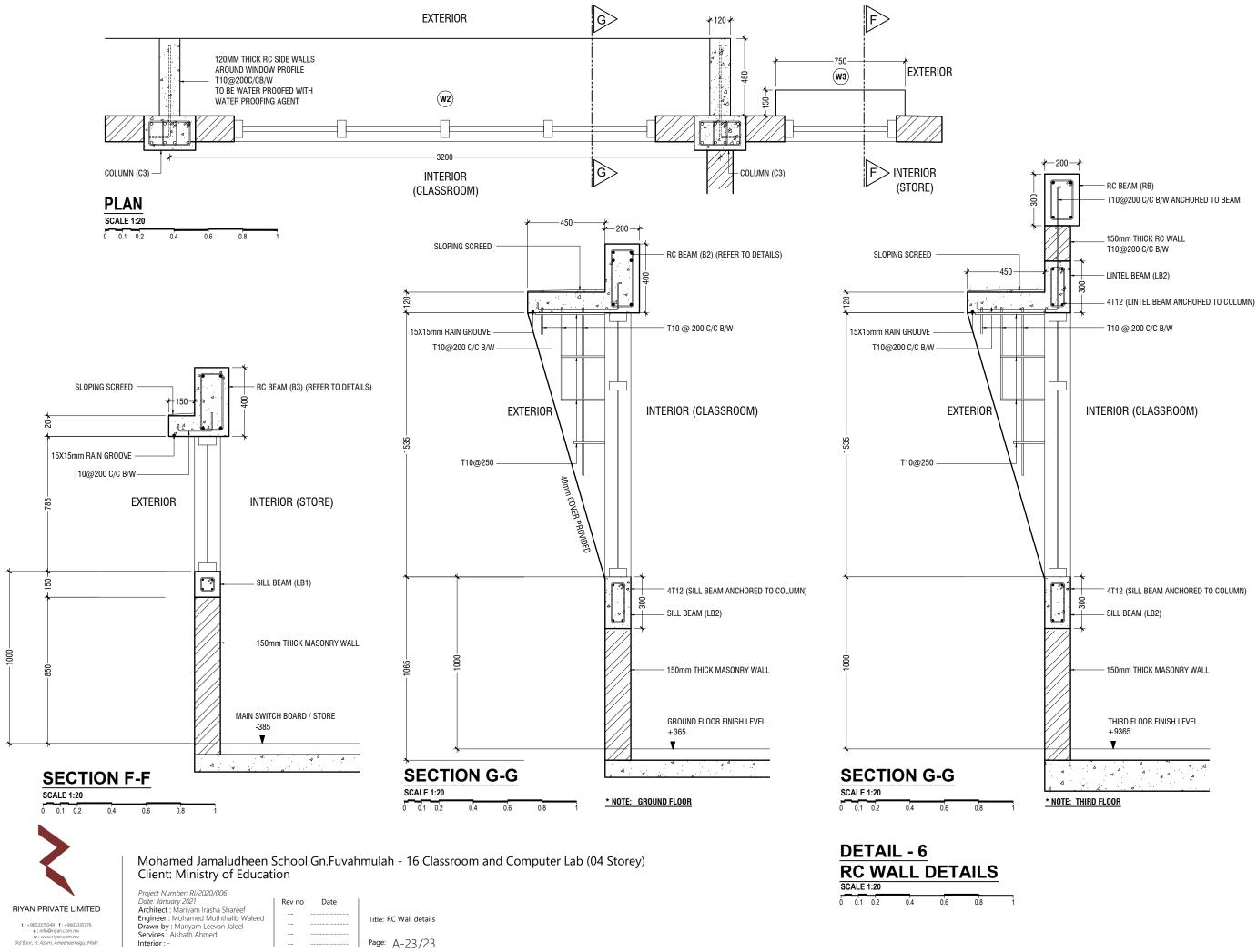
150mm THICK MASONRY

100mm THICK LEAN CONCRETE









### **GENERAL NOTES**

THE GENERAL NOTES SHALL BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS AND DRAWINGS

REGARDLESS OF WHETHER OR NOT SHOWN IN DRAWINGS OR OTHER TENDER DOCUMENTS. THE STANDARD PROVISIONS SPECIFIED HEREUNDER FOR COMPLIANCE BY THE CONTRACTOR SHALL APPLY TO ALL RELEVANT PORTIONS OF THE STRUCTURAL WORKS AND SHALL FORM PART OF THIS CONTRACT

#### 1.0 VERIFICATION OF DIMENSIONS AND LEVELS

- •THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS ON SITE, AND RESOLVE ALL DISCREPANCIES WITH THE ARCHITECT OR ENGINEER PRIOR TO COMMENCEMENT OF WORK
- DRAWING INDICATES GENERAL & TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE OF SIMILAR CHARACTER TO DETAILS SHOWN AND ALTHOUGH NOT SPECIFICALLY INDICATED, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECTED TO REVIEW BY THE ENGINEER
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS IN THE CONTRACT DRAWINGS.
- •DISCREPANCIES IN DRAWINGS ARISING FROM SUCH VERIFICATION WORKS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

#### 2.0 SHOP DRAWINGS

- •THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING TOTAL COORDINATION OF ALL WORKS AND SHALL TAKE SITE MEASUREMENTS PRIOR TO THE PREPARATION OF ANY SHOP DRAWINGS OR BEFORE COMMENCING FABRICATION.
- •THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL SPECIALIST TRADES, SUCH AS PRESTRESSING, CURTAIN WALLING, ETC. FOR REVIEWS AND COMMENTS BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCEMENT OF WORK. SUCH SHOP DRAWINGS SUBMITTED SHALL INCORPORATE ALL NECESSARY CONNECTION DETAILS TO THE STRUCTURAL MEMBERS SUCH AS CAST-IN INSERTS, EMBEDDED PLATES, ETC.

#### 3.0 INCORPORATION OF M&E REQUIREMENTS IN THE STRUCTURE

- •THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ENSURING TOTAL COORDINATION OF STRUCTURAL, M & E PENETRATION DRAWINGS OF SERVICES AND SUBMIT SUCH SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEWS AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- •THESE SHOP DRAWINGS SHALL INCORPORATE ALL MECHANICAL, ELECTRICAL AND SANITARY WORKS TO BE EMBEDDED IN CONCRETE AND ALL OPENINGS FOR ALL PIPE OR DUCT WORKS, BASED ON THE REQUIREMENTS OF M & E DRAWINGS IN HIS POSSESSION. •HE SHALL CHECK AND RESOLVE ALL DISCREPANCIES WITH THE RESPECTIVE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

#### 4.0 LEAN CONCRETE FOR SUSPENDED STRUCTURES

•UNLESS OTHERWISE STATED. 50 MM THICK LEAN CONCRETE WITH A MINIMUM 28-DAY CUBE STRENGTH OF 15N/MM2 SHALL BE PROVIDED ON ALL SOIL SURFACES FORMING THE UNDERSIDE OF STRUCTURAL CONCRETE MEMBERS.

#### 5.0 STRUCTURAL ELEMENTS ON GRADE

•UNLESS OTHERWISE STATED, A SINGLE LAYER OF 0.25 MM(HEAVY DUTY) POLYTHENE SHEET, OR EQUIVALENT THERMOPLASTIC MATERIAL, LAID OVER A COMPACTED 60 MM THICK LAYER OF HARD CORE BLINDED WITH SAND TO PREVENT GROUT LOSS FROM SEEPAGE INTO THE GROUND SHALL BE PROVIDED ON ALL SOIL SURFACES FORMING THE UNDERSIDE OF THE NON-SUSPENDED SLABS.

#### 6.0 SUBGRADE UNDER STRUCTURAL ELEMENTS

•WHERE THE CONTRACTOR REQUIRES REMOVAL AND SUBSEQUENT BACKFILL OF SUBGRADE PRIOR TO CASTING OF PILECAP/WALL/BEAM/SLAB, HE SHALL ENSURE THAT THE BACKFILL IS OF APPROVED MATERIAL AND THAT THE BACKFILL SHALL BE REASONABLY COMPACTED TO ENSURE THAT THE COMPACTED SOIL IS ABLE TO WITHSTAND THE WEIGHT OF THE WET CONCRETE. THE CONTRACTOR SHALL EXERCISE PROPER SKILL AND CARE TO AVOID DAMAGE TO ADJACENT INSTALLED STRUCTURES ARISING FROM HIS CONSTRUCTION SEQUENCE.

#### 7.0 WATERPROOFING FOR STRUCTURES

- •THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND METHOD STATEMENTS FOR THE ENGINEER'S APPROVAL PRIOR TO COMMENCEMENT OF WORK. REQUIRED SHOP DRAWING DETAILS INCLUDE BUT ARE NOT LIMITED TO TREATMENT OF FLASHINGS, WATERSTOP AT CONSTRUCTION JOINTS. WALL AND SLAB PENETRATIONS.
- ALL PENETRATIONS THROUGH STRUCTURAL ELEMENTS SHALL BE CAST-IN, SLEEVED AND PROVIDED WITH APPROVED PUDDLE FLANGE DETAIL. IF FOR ANY REASON THE CONTRACTOR IS UNABLE TO LAY WATERSTOP AT CONSTRUCTION JOINTS AS INDICATED IN THE DRAWINGS, HE SHALL AT HIS OWN EXPENSES PROVIDE ADEQUATE GROUT TUBES FOR WATERPROOF PRESSURE GROUTING TO ENSURE WATERTIGHTNESS OF THE JOINT.
- ALL GROUT TUBES SHALL BE MARKED AND PROTECTED FROM BLOCKAGE. • BACKFILLING OPERATIONS AGAINST VERTICAL SURFACE SHALL BE CARRIED OUT AS SOON
- AS THE WATERPROOFING BARRIER IS INSTALLED TO THE SATISFACTION OF THE ENGINEER.

#### 8.0 CASTING LAYERS

• INCLINED CASTING LAYERS AND INCLINED CONSTRUCTION JOINTS SHALL BE AVOIDED. •HORIZONTAL CASTING LAYERS SHALL NOT IN GENERAL EXCEED 0.6 M THICKNESS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

#### 9.0 FOUNDATIONS

- •ALL FOUNDATIONS HAS BEEN DESIGNED FOR SAFE GROUND PRESSURE OF 150 KN/M.
- •ALL BACKFILL SHOULD BE DONE WITH MATERIALS APPROVED BY THE CONSULTANT AND SOURCE. ALL BACKFILL SHOULD BE STRUCTURAL FILL, COMPACTED IN LAYERS AS SPECIFIED.
- •WEAK POCKETS FOUND BELOW THE ASSUMED FOUNDATION LEVELS SHALL BE REMOVED AND REPLACED BY PLAIN CONCRETE.
- IN CASE OF EXCAVATIONS BELOW THE ASSUMED LEVEL OF THE FOUNDATION, THE SOIL SHALL BE REPLACED BY PLAIN CONCRETE.
- IN CASE GROUND WATER IS PRESENT ABOVE FOUNDATION LEVEL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING THE BELOW LEVEL OF FOUNDATIONS.
- THE CONTRACTOR SHALL MAINTAIN DRY WORKING CONDITIONS THROUGH OUT THE CONSTRUCTION PERIOD. RESTORING WATER TABLE CAN BE DONE AFTER BACKFILLING AND COMPACTION UP TO THE SLAB ON GRADE LEVEL, OR AS DIRECTED BY THE ENGINEER.
- •NO BACK FILLING SHALL BE PLACED AGAINST WALLS RETAINING EARTH, UNLESS THE WALLS ACHIEVE SUFFICIENT STRENGTH TO PREVENT MOVEMENT OR STRUCTURAL DAMAGE.

#### **10.0 CONSTRUCTION LOAD AND SHORING**

- CONSTRUCTION LIVE LOAD IMPOSED ON ANY SINGLE FLOOR SHALL NOT EXCEED 1.5 KN/M2. UNLESS OTHERWISE APPROVED BY THE ENGINEER, DEAD LOAD OF THE TOP CONSTRUCTION FLOOR SHALL BE SUPPORTED BY TWO COMPLETED FLOORS DIRECTLY BELOW IT.
- PROPS TO BEAMS AND SLABS AT ANY FLOORS SHALL NOT BE REMOVED UNTIL THE TWO IMMEDIATE FLOORS ABOVE THAT LEVEL ARE CAPABLE OF SUPPORTING THEMSELVES AS WELL AS ANY LOADS IMPOSED DURING CONSTRUCTION. CONSIDERATIONS GOVERNING REMOVAL OF PROPS INCLUDE BUT ARE NOT LIMITED TO THE ATTAINMENT OF 28-DAY STRENGTH FOR THE CONCRETE. DESIGN LOAD CAPACITY OF THE FLOOR UNDER REVIEW AND THE COMPLETION OF PRESTRESSING AND GROUTING OPERATIONS IN THE CASE OF A PRESTRESSED STRUCTURAL FLOOR SYSTEM.

• PROPS SHALL BE LEFT IN PLACE FOR SUPPORTING THE CONSTRUCTION LOADS APPROVED BY THE ENGINEER

- •NO ALLOWANCE HAS BEEN MADE IN THE DESIGN OF THE PERIMETER BEAMS/WALLS FOR THE SUPPORT OF TEMPORARY SCAFFOLDINGS.
- STRENGTHEN THE BEAMS/WALLS.
- •THE CONTRACTER SHALL ENGAGE HIS OWN PROFESSIONAL ENGINEER CHECK THE ADEQUACY OF SHORING DETAIL PROVIDED PROCEEDING THE WORK, AS SHORING WAS DESIGNED, CONSIDERING THE STATUS OF THE BUILDING AT THE TIME OF DESIGN.

#### 11.0 CONCRETE COVER

•MINIMUM COVER TO OUTERMOST REINFORCEMENT INCLUDING LINKS SHALL BE AS FOLLOWS

STRUCTURAL ELEMENT	COVER (mm)
RAFT BEAM & SLAB (EARTH FACE)	60
RAFT BEAM & SLAB (INTERNAL FACE)	60
COLUMN	40
BEAM	35
BEAM (EXTERNAL FACE)	40
SLAB	30
INTERNAL WALL	30
EXTERNAL WALL	40

•NOTE: EARTH FACE COVER OF BEAMS, COLUMNS & WALLS SHOULD BE 50mm

#### 12.0 MATERIAL STRENGTHS

#### 12.1 CONCRETE

•UNLESS OTHERWISE STATED, ORDINARY PORTLAND CEMENT CONFORMING TO BS 12, TO BE USED FOR ALL THE BC STRUCTURAL ELEMENTS •THE MINIMUM 28-DAY COMPRESSIVE CUBE STRENGTH OF CONCRETE FOR SPECIFIED STRUCTURAL ELEMENTS SHALL BE AS FOLLOWS UNLESS OTHERWISE STATED:

MAIN BUILDING	
LEAN CONCRETE	15 N/r
MASS CONCRETE	30 N/r
COLUMN, BEAM AND SLAB	30 N/r
EXTERNAL WORK	
PAVEMENTS	30 N/r
ALL OTHERS (CULVERT, DRAINS, MANHOLE, ETC)	30 N/r
FOUNDATION	

PILECAP, FOOTING, RAFT TIE-BEAM, CAPPING BEAM 30 N/mm2

#### • CEMENT SHALL BE ORDINARY PORTLAND CEMENT TO BS 12.

•THE CONTRACTER SHALL ENGAGE HIS OWN PROFESSIONAL ENGINEER TO DESIGN AND

mm2

mm2

mm2

mm2

mm2





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#### 12.2 REINFORCEMENT

• UNLESS OTHERWISE STATED, BAR SIZE 10MM DIAMETER OR LARGER SHALL BE HIGH TENSILE TYPE II DEFORMED BARS. THE MINIMUM YIELD STRENGTH OF STEEL BAR REINFORCEMENT SHALL BE AS FOLLOWS:

MILD STEEL PLAIN BAR	250 N/mm2
HIGH TENSILE TYPE II DEFORMED BAR	415 N/mm2

12.25 REINFORCEMENT ANCHORAGE OR LAPPING IS AS FOLLOWS U.N.O.

	BAR GRADE 415
TENSION	45Ø
COMPRESSION	45Ø

Ø IS DIAMETER OF THE SMALLER SIZED LAPPED BAR.

•NO SPLICE SHALL BE MADE AT POINT OF MAXIMUM STRESS, EG IN BEAMS AND SLABS, THERE SHALL BE NO SPLICING OF TOP BARS OVER SUPPORTS NOR BOTTOM BARS AT MID-SPANS. SPLICES SHALL BE STAGGERED WHEREVER POSSIBLE. LAP LENGTH FOR UNEQUAL SIZE BARS (OR WIRES IN FABRIC) MAY BE BASED UPON THE SMALLER BAR. FOR BUNDLED BARS, THE EQUIVALENT DIAMETER SHALL BE USED. CRANKING OF BARS SHALL NOT EXCEED A SLOPE OF 1:10.

• FOR LAP LENGTH, WHERE SYMBOLS ARE NOT INDICATED, THE TENSION LAP LENGTH SHALL BE FOLLOWED.

#### 13.0 STIRRUPS, LINKS AND TIES

•ALL STIRRUPS, LINKS AND TIES IN BEAMS, COLUMNS AND WALLS RESPECTIVELY SHALL TERMINATE NOT MORE THAN 75mm FROM THE FACE OF ANY ADJACENT STRUCTURAL MEMBERS.

#### 14.0 SLAB DISTRIBUTION BARS

•REGARDLESS OF WHETHER OR NOT SHOWN ON PLAN, ALL DISTRIBUTION BARS FOR SLAB SHALL COMPRISE TYPICALLY ONE OF THE FOLLOWING COMBINATIONS, UNLESS OTHERWISE STATED IN THE RELEVANT DRAWINGS :

SLAB THICKNESS (mm)	MIN. DISTRIBUTION BAR
250 OR LESS	T10-300
GREATER THAN 250 BUT LESS THAN O	R EQUAL TO 300 T10-200

GREATER THAN 300 BUT LESS THAN OR EQUAL TO 400 T10-150

#### 15.0 FLOOR RENDERING

• THICKNESS OF SCREED RENDERING/MASS CONCRETE TOPPING EXCEEDING 60 OR MORE SHALL BE REINFORCED WITH ONE LAYER OF R6.

#### 16.0 SHRINKAGE CRACKS

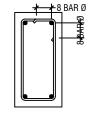
•THE SURFACE OF CONCRETE SHALL BE ADEQUATELY AND CONTINUOUSLY CURED TO SPECIFICATION TO PREVENT FORMATION OF SHRINKAGE CRACKS.THOUGH SHRINKAGE CRACKS HAVE NO EFFECT ON THE STRENGTH AND INTEGRITY OF THE STRUCTURE,THEY SHOULD BE SEALED BY EPOXY PRESSURE GROUTING. ALL COST INCURRED FOR THE NECESSARY SEALING UP OF SHRINKAGE CRACKS BY EPOXY PRESSURE GROUTING SHALL BE DEEMED TO BE INCLUDED IN THE CONCRETE WORK AS TENDERED.

#### 17.0 STEEL BAR CORROSION PROTECTION

•ALL EXPOSED BARS FOR FUTURE CONSTRUCTION PURPOSES (EXCEEDING 3 MONTHS) MUST BE COATED WITH MASTER EMACO 8100 AP OR APPROVED EQUIVALENT AND PROVIDED WITH ADEQUATE MAINTENANCE.

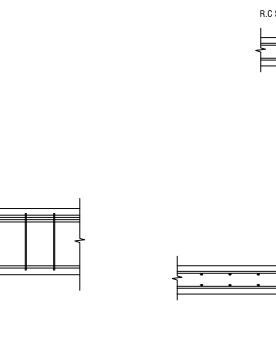
#### 18.0 SPACER BARS

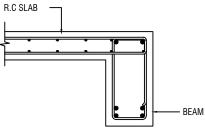
-ALL SPACER BARS BETWEEN 2 OR MORE LAYERS OF REINFORCEMENT SHALL T25 OR BAR DIAMETER (WHICHEVER IS GREATER) AT  $\pm$  1-5M C/C.



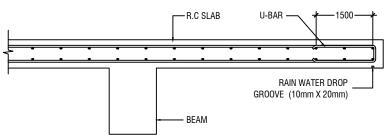
 $\emptyset = \text{DIA OF LINK}$ 

#### SHEAR LINKS ANCHORAGE DETAIL





#### SLAB-BEAM ANCHORAGE DETAIL



BEAM TO COLUMN CONNECTION

— BEAM

- COLUMN

CANTILEVERED SLAB EDGE DETAIL





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#### 19.0 STRUCTURAL TIMBER SPECIFICATION

19.1 THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.

19.2 THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

19.3 ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

19.4 All timber for structural use shall be hardwood or softwood of visual grade c/d in accordance with BS 5756 with the following minimum grade stresses:

#### **19.5 CONNECTIONS**

PLATES - STAINLESS STEEL GRADE 316 OF STATED THICKNESS BOLTS - SS GRADE 316

19.6 TIMBER TREATMENT MOISTURE - PRESSURE IMPREGNATION OF CCA INSECTS - TERMITE TREATMENT FOR TIMBER IN / NEAR GROUND

#### 20.0 STRUCTURAL STEEL SPECIFICATION

1. SEE 21.0 ON PRIMARY CODES AND SPECIFICATIONS.

2. MATERIALS:

3. NON-SHRINK, NON-METALLIC GROUT WITH A 28 DAY STRENGTH OF 35MPa SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO BS EN 12390-3 AND EN 196-1. MASTERFLOW 542 OR EQUIVALENT MAYBE USED.

#### 23.0 POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD (EOR) PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSINGS OR MISPLACED ANCHORS.

2. CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REINFORCING WHEN DRILLING HOLES. HOLES SHALL BE DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE.

3. SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL ADHESIVE AND MECHANICAL ANCHOR INSTALLATIONS AS REQUIRED BY THE EOR. INDEPENDENT ON-SITE PROOF LOAD TESTING SHALL BE PERFORMED AS REQUIRED BY THE EOR. CONTACT EOR FOR NUMBER OF ANCHORS REQUIRED TO BE TESTED AND REQUIRED PROOF LOAD MAGNITUDE.

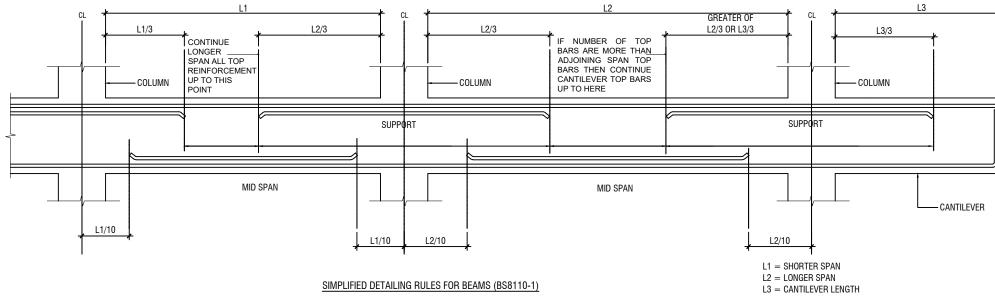


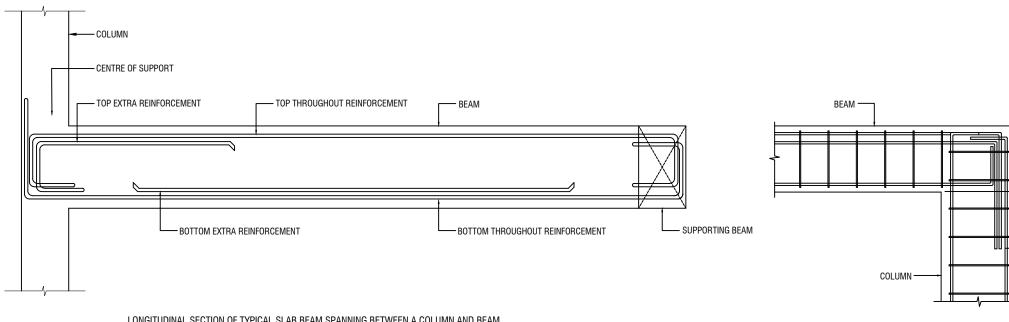


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LONGITUDINAL SECTION OF TYPICAL SLAB BEAM SPANNING BETWEEN A COLUMN AND BEAM SHOWING END SPAN MID SPAN REINFORCEMENT DETAILS

#### END COLUMN TO BEAM CONNECTION

NOTE: STANDARD DETAILS GIVEN HERE ALSO APPLIES TO FOUNDATION MEMBERS OTHER DETAILS NOT FOUND HERE SHALL BE REFEREED TO IN RELEVANT BS CODES OR SHALL BE APPROVED BY CLIENT'S ENGINEER







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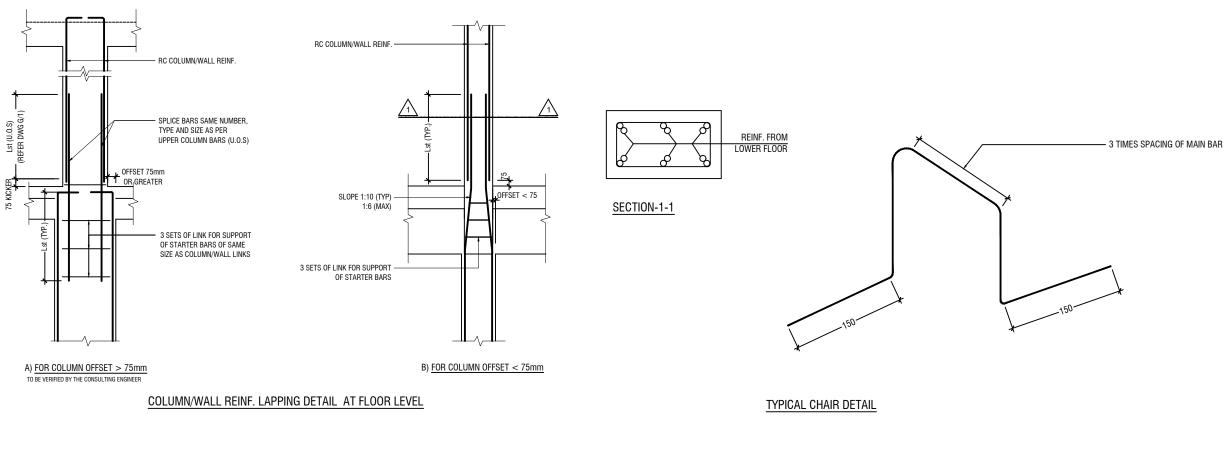
Date

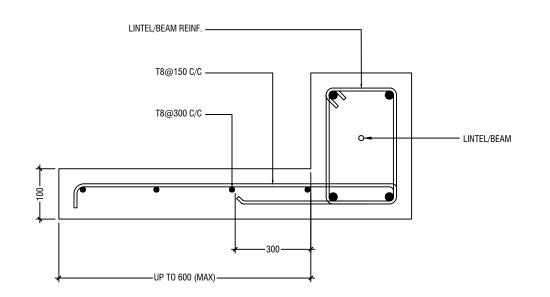
Rev

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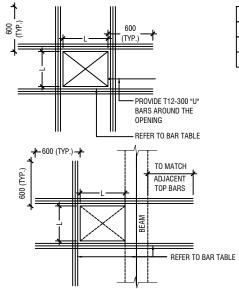
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TYPICAL CANTILEVER DETAILS



- NOTE:-1. FOR OPENINGS LESS THAN 200x200. SLAB REBARS TO BE ADJUSTED AROUND OPENING.
- FOR OPENINGS LESS THAN 2002200. SLAB REDARS TO BE ADDUSTED AROUND OPENING. FOR OPENINGS GREATER THAN 250x250 TO BE APPROVED BY THE ENGINEER. ALL SLAB OPENINGS LOCATION TO BE APPROVED BY THE ENGINEER. EQUIVALENT OPENING AREA SHALL APPLY THE DETAILS SHOWN ABOVE. EQUIVALENT OPENING AREA SHALL INCLUDE RECTANGLE, TRIANGLE AND ANY POLYGON SHAPE. 2.
- 3.
- 4.
- 5.
- 6. EXCEPT HACKING, NO SLAB CORING ARE ADVISABLE FOR POST-TENSIONED SLAB.

### TYPICAL TRIMMER BARS DETAILS FOR OPENING IN SLABS

ADD BARS
3T12 T & B
3T16 T & B
3T16 T & B

FLOOR OPENING (L)

L = > 250 < 500L = ≥ 500 < 1000

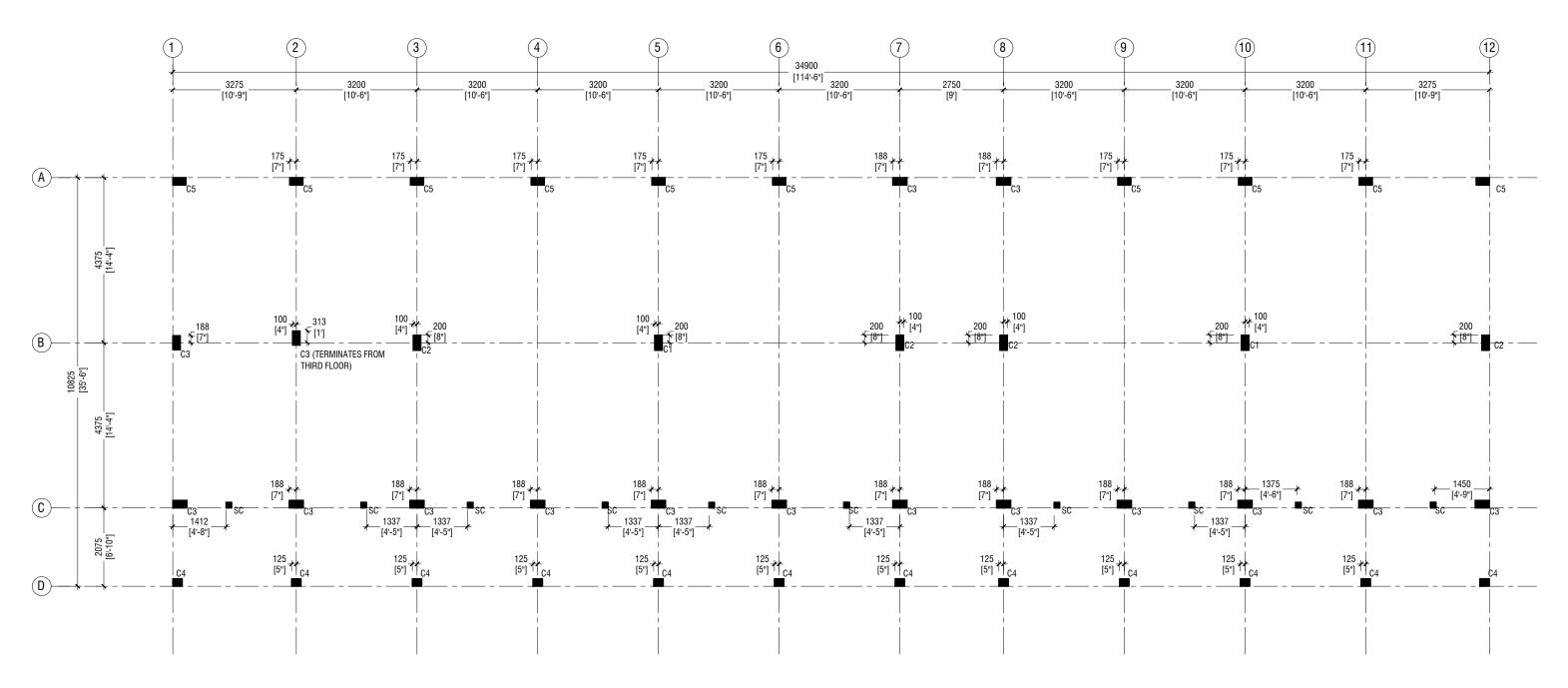
LESS THAN 250





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# FIRST - THIRD FLOOR COLUMN LAYOUT PLAN

SCALE 1:100 0 0.5 1 2 3 4 5



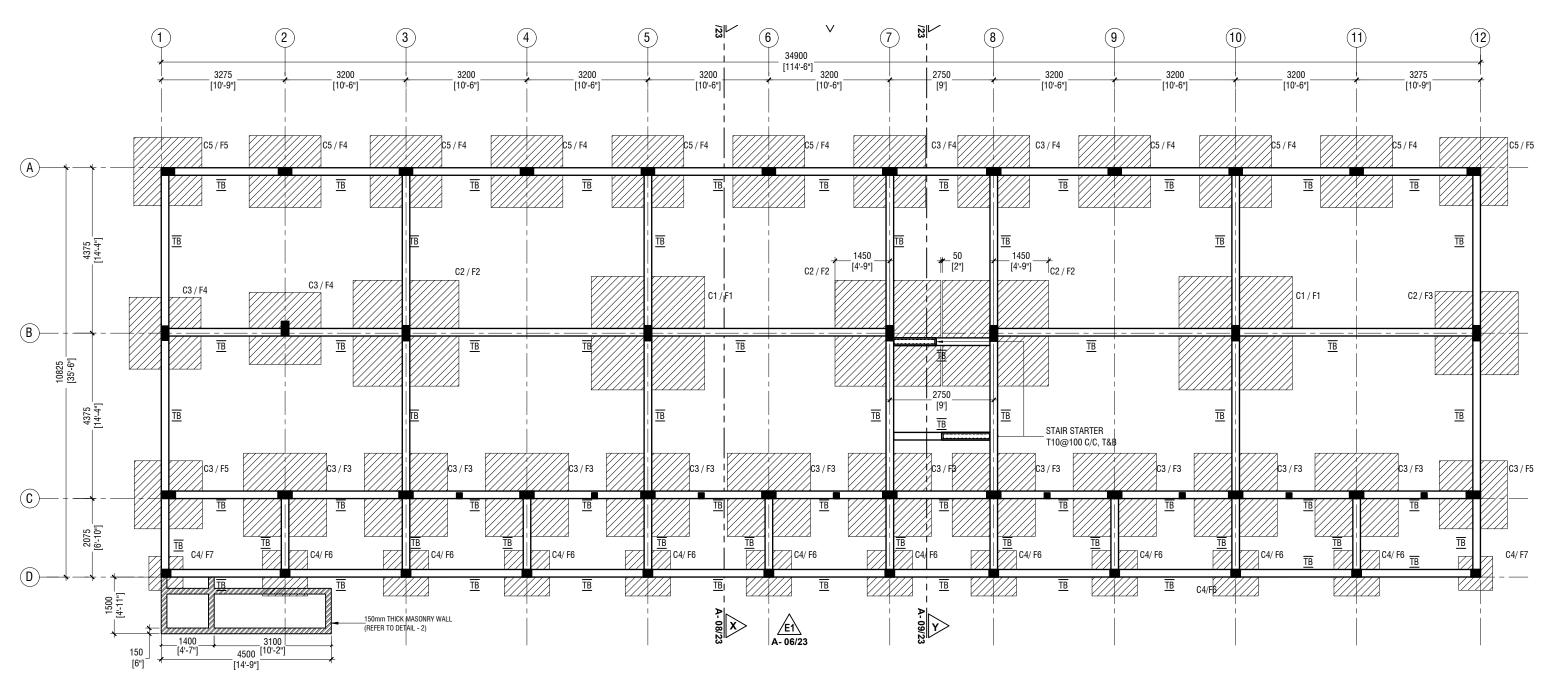
Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : - - - - - Page: S-01/12

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### NOTE:

COLUMN SI	ZES	
C1	: 225 x 450 mm	
C2	: 225 x 450 mm	
C3	: 200 x 375 mm	
C4	: 200 x 250 mm	
C5	: 200 x 350 mm	
SC	: 150 x 150 mm	
COVER	: 40mm	



## FOUNDATION PLAN

601	1.1	۱n

0 0.5 Å.

C1	: 225 x 400 mm	
C2	: 225 x 400 mm	
C3	: 200 x 300 mm	
C4	: 200 x 200 mm	
C5	: 200 x 300 mm	
SC	: 150 x 150 mm	
COVER	: 40mm	

NOTE:

		DIMENSION	REINFORCEMENT
	F1	3000 x 3000 x 500	T16@150 C/C B/W (B) & T12@200 C/C B/W (T)
	F2	2800 x 2800 x 450	T16@150 C/C B/W (B) & T12@200 C/C B/W (T)
	F3	2200 x 2200 x 300	T16@150 C/C B/W (B)
	F4	1900 x 1900 x 300	T16@150 C/C B/W (B)
	F5	1800 x 1800 x 300	T16@150 C/C B/W (B)
Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 St	:or€v)	1200 x 1200 x 300	T12@150 C/C B/W (B)
Client: Ministry of Education	F7	900 x 900 x 300	T12@150 C/C B/W (B)

NOTE:

: 40mm	
: 30mm	
: 35mm	
: 50mm	
: 50mm	
	: 30mm : 35mm : 50mm

LAP LENGTH	FOR BARS	
25MM	:1125 mm	
20MM	:900 mm	
16MM	:720 mm	
12MM	: 550 mm	
10MM	:450 mm	

CONCRETE GRADE = M25

SAFE BEARING CAPACITY = 150KPa

HOOK LENGTH AND OTHER DETAILS ARE PROVIDED IN THE GENERAL NOTES



Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Consincer : Alsterk Alword Rev no Date --Title: Foundation Plan --Services : Aishath Ahmed --Interior : -Page: S-02/12 --

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FOUNDATION DEPTH :	1200mm REL 014	
FOUNDATION DEPTH:	1200mm BELOW	GROUND LEVEL

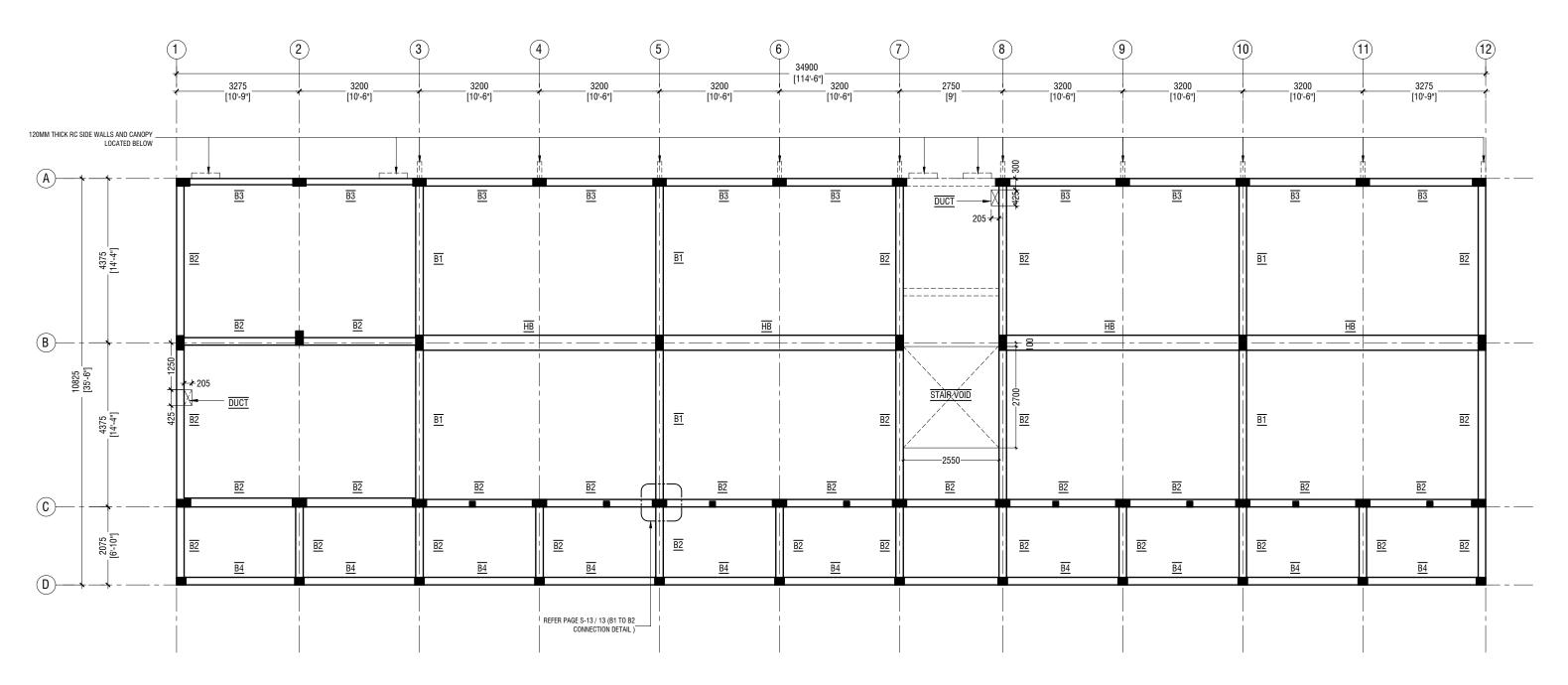
ALL FOOTINGS ARE TO BE LAID ON TOP OF 50mm THICK LEAN CONCRETE APPLY WATER PROOFING TO SUBSTRUCTURE (BELOW GROUND ELEMENTS)

TIE BEAM SIZES TB : 200 x 450 mm COVER : 50mm

GROUND SLAB : 100mm THK RC SLAB ON FILL REINFORCED WITH T10@200 C/C BW

-150mm THK. SOLID MASONRY BLOCK WALL

RAMP SLAB : 100mm THK RC SLAB ON COMPACTED FILL REINFORCED WITH T10@200 C/C BW



# FIRST - THIRD FLOOR BEAM PLAN



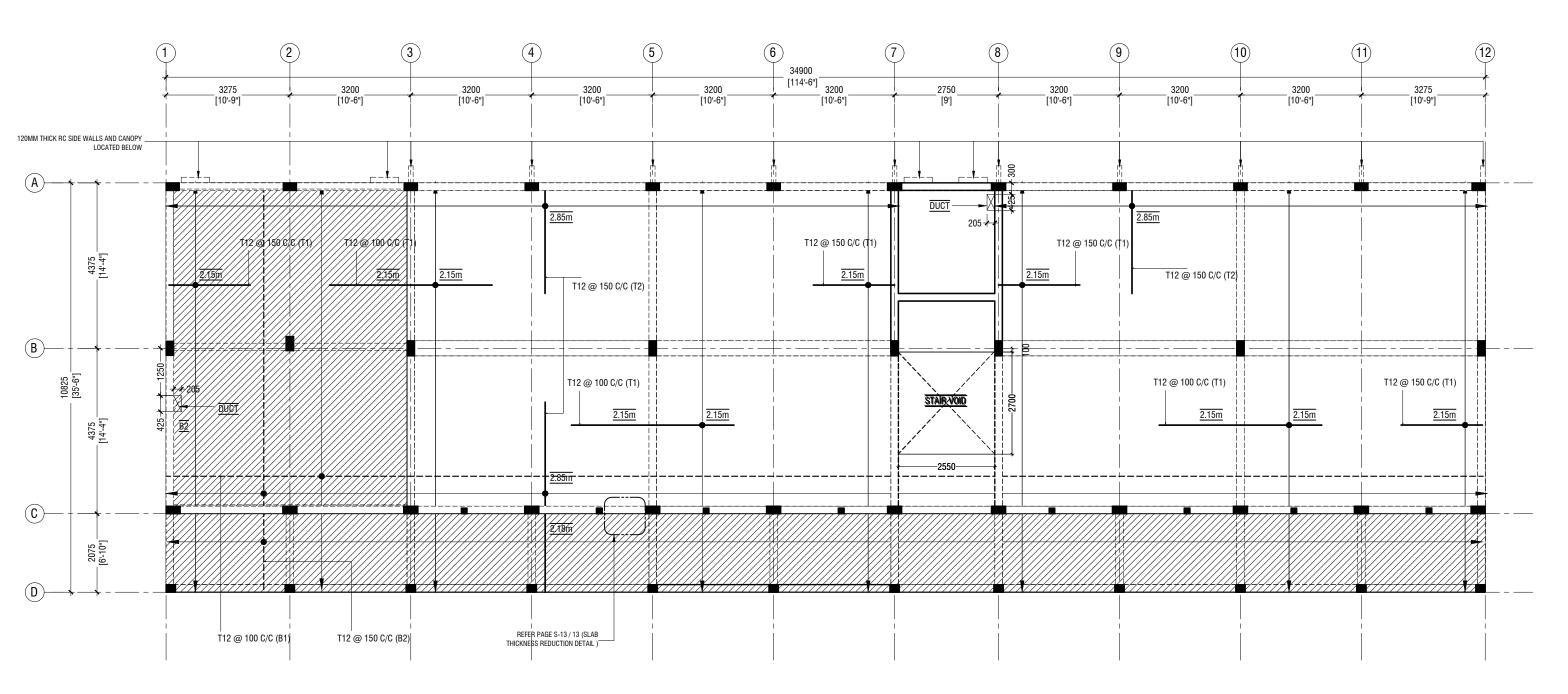
Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date --Title: First - Third Floor Beam Plan ---------Page: S-03/12 --

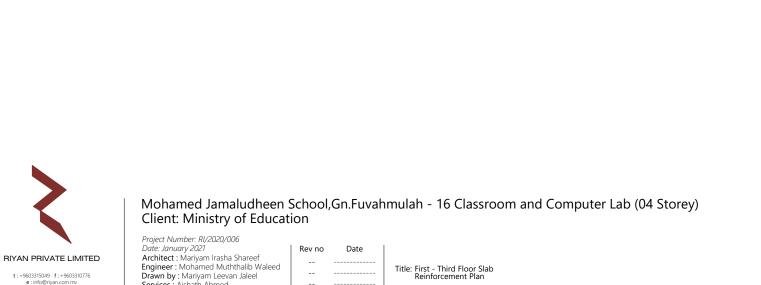
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### NOTE:

COLUMN SIZES	
C1	: 225 x 450 mm
C2	: 225 x 450 mm
C3	: 200 x 375 mm
C4	: 200 x 250 mm
SC	: 200 x 350 mm
COVER	: 40mm
BEAM SIZES	
B1	: 200x475 mm
B2	: 200x400 mm
B3	: 200x400 mm
HB	: 400x180 mm
COVER	: 35mm
CONCRETE GRADE = M25	







Title: First - Third Floor Slab Reinforcement Plan --Services : Aishath Ahmed Interior : ---Page: S-04/12 3rd floor, H. Azum, Ameeneemagu, Male ---

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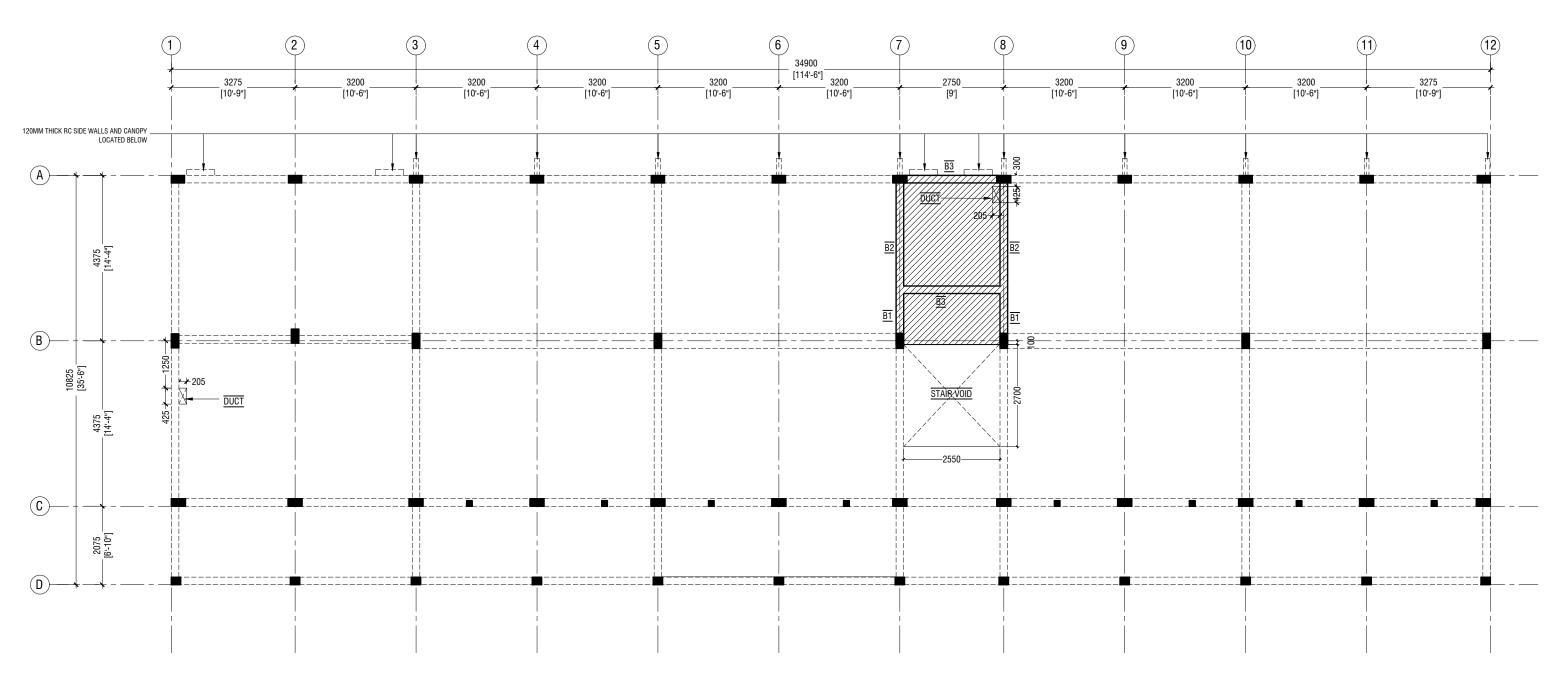
3

ż

4 5

SLAB THICKNESS:	180mm				
SLAB THICKNESS:	135mm				
 BOTTOM REINFORCEMENT:		T12@100C/C ALONG SHORT DIRECTION (B1) T12@ 150 C/C ALONG LONGER DIRECTION (B2)			
TOP REINFORCEMENT	Г:	T12@150C/C (AS SHOWN, UNLESS STATED)			
TOP DISTRIBUTION STEEL:		T12@150C/C(NOT SHOWN,UNLESS STATED)			
ALL REINFORCEMENT TO BE DISCONTINUOUS OVER THE VOIDS					

NOTE



# **STORE / HALF LANDING FLOOR BEAM & SLAB REINFORCEMENT PLAN (+1850, +4850 & 7850)**



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

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### NOTE:

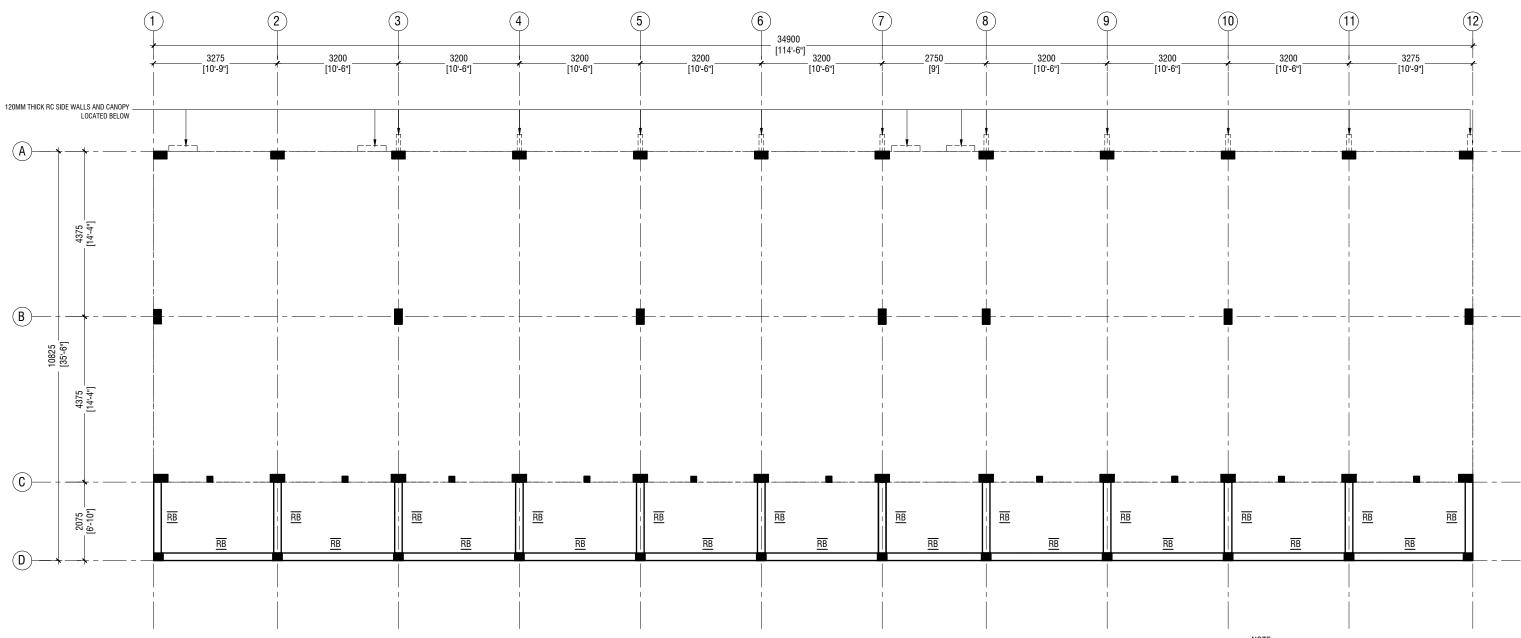
COLUMN SIZES	
C1	: 225 x 450 mm
C2	: 225 x 450 mm
C3	: 200 x 375 mm
C4	: 200 x 250 mm
SC	: 200 x 350 mm
COVER	: 40mm

### BEAM SIZES

B2         : 200x400 mm           B3         : 200x400 mm           HB         : 400x180 mm           COVER         : 35mm           SLAB THICKNESS:         150mm	B1	: 200x475 mm	1
HB : 400x180 mm COVER : 35mm	B2	: 200x400 mm	1
COVER : 35mm	B3	: 200x400 mm	1
	HB	: 400x180 mm	1
SLAB THICKNESS: 150mm	COVER	: 35mm	
	SLAB THICKNES	SS:	150mm

REINFORCEMENT: T10@150C/C B/W (T&B)

ALL REINFORCEMENT TO BE DISCONTINUOUS OVER THE VOIDS



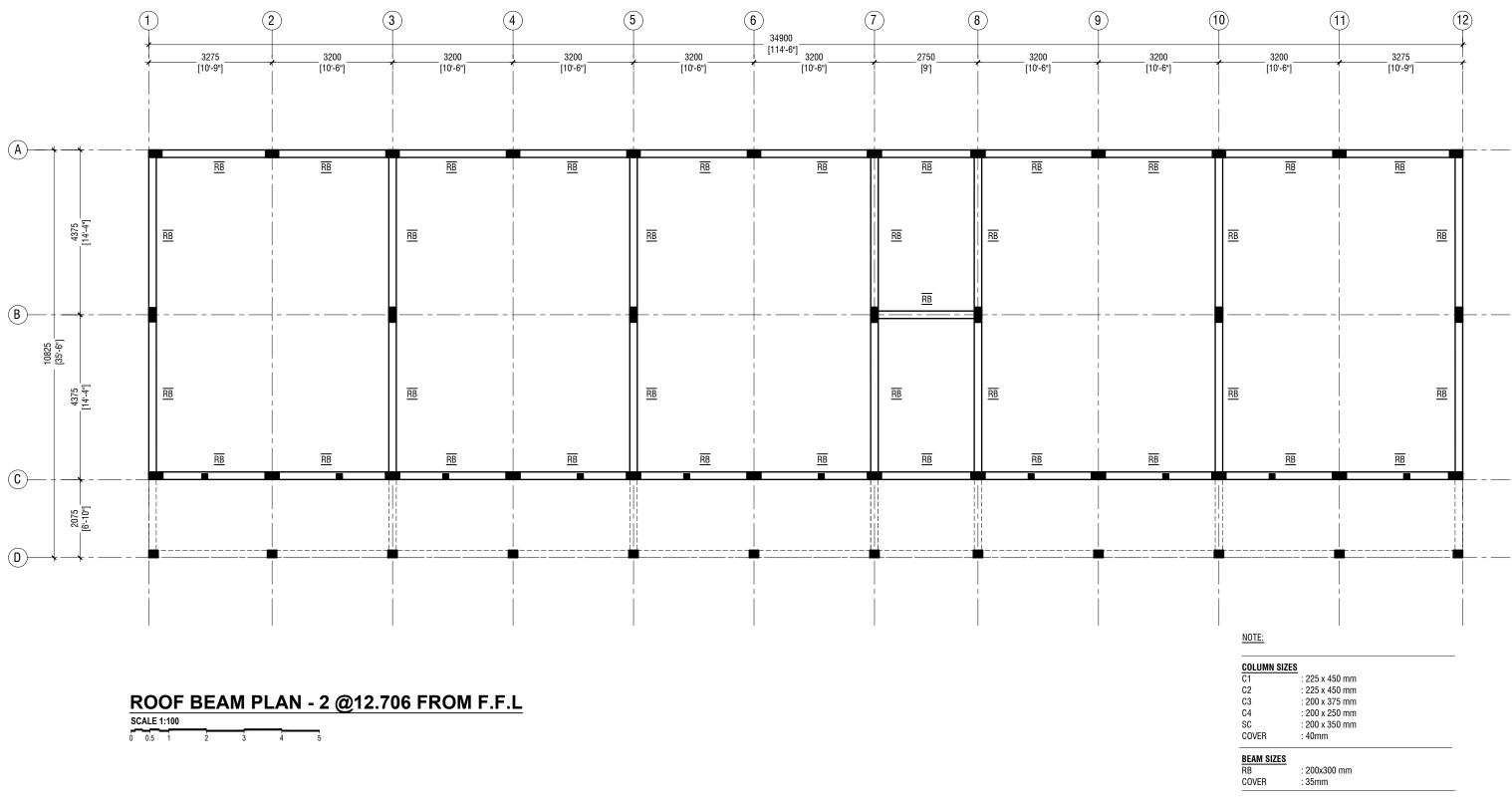
# **ROOF BEAM PLAN - 1 @12.15 FROM F.F.L** <u>SCALE 1:100</u> <u>0 05 1 2 3 4 5</u>



Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date --------Title: Roof Beam Plan - 1 ----------------Page: S-06/12 --------

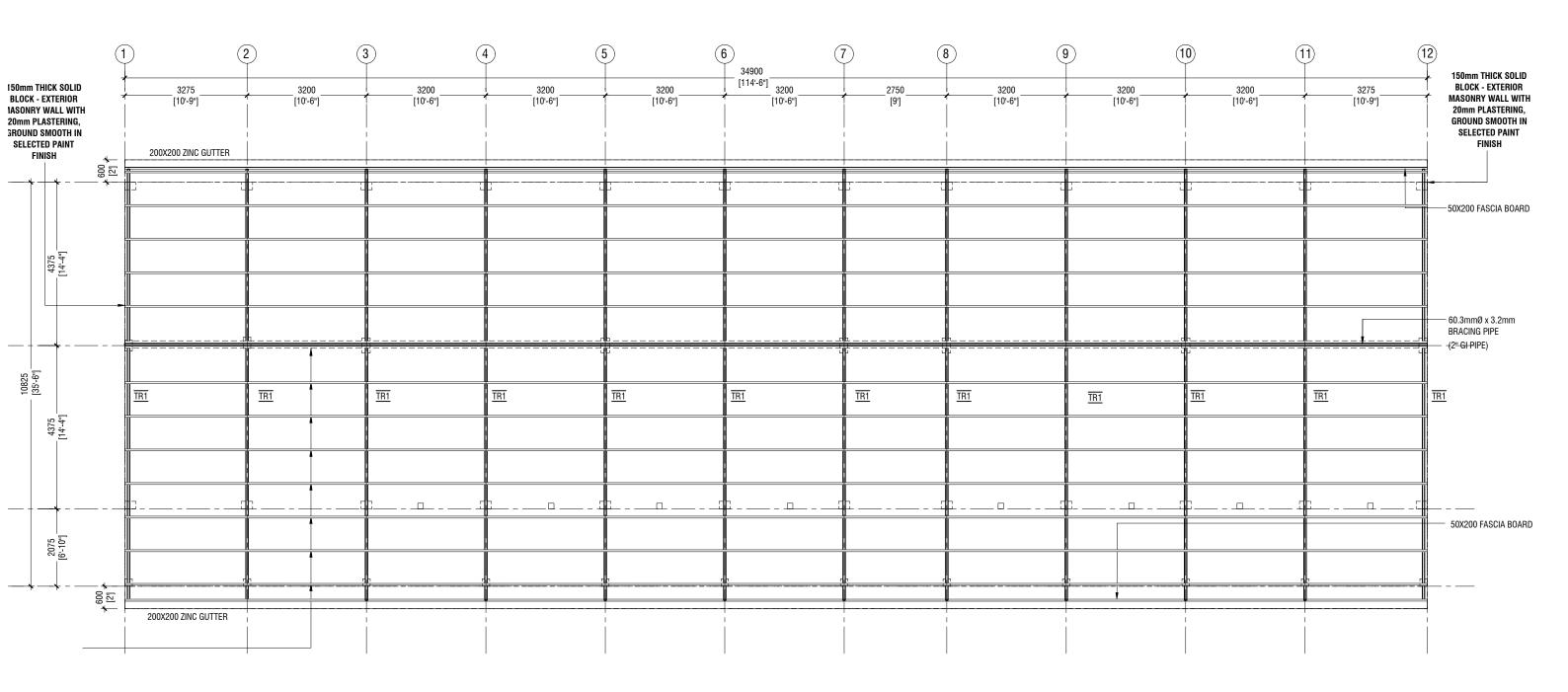
	<u>7B</u>	RB		RB	RB	RB	
							-
	<u>NOTE:</u>						
	COLUMN C1 C2 C3 C4 SC COVER	SIZES : 225 x : 225 x : 200 x : 200 x : 200 x : 200 x : 40mm	150 m 375 m 250 m	m m m			
	BEAM SIZ RB COVER	2ES : 200x3 : 35mm	)0 mm	1			





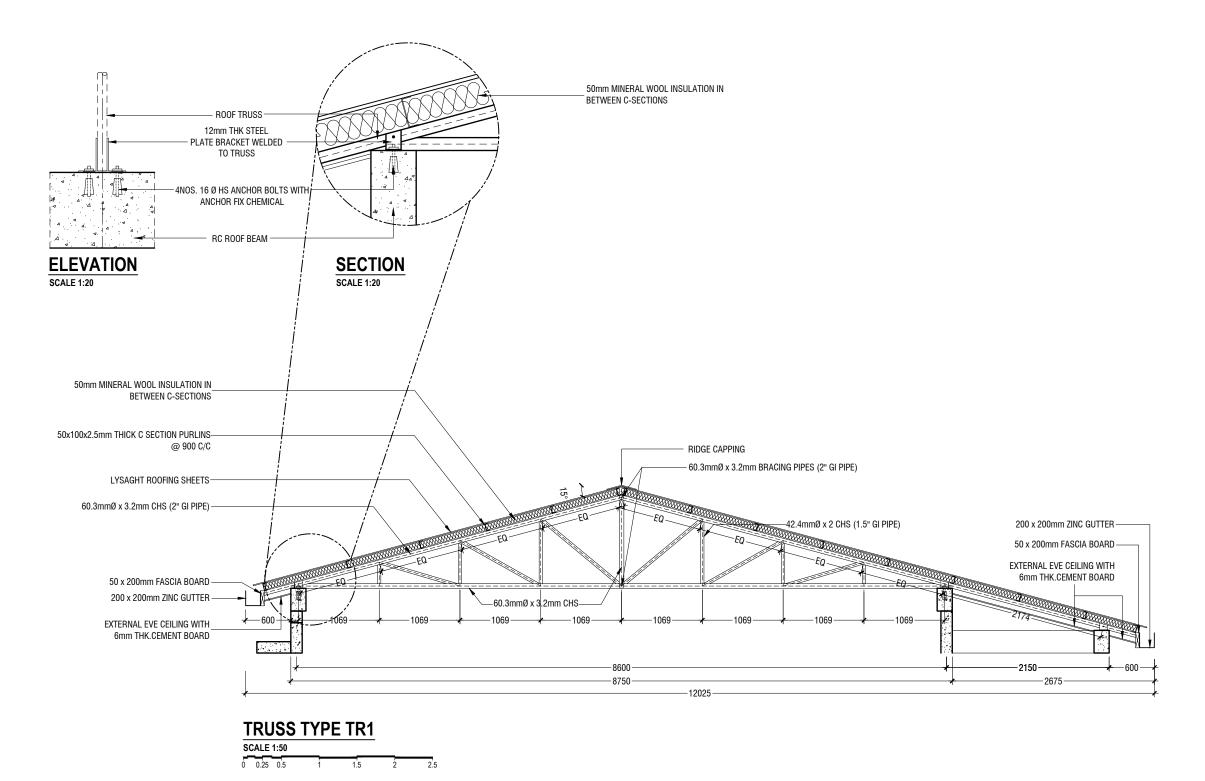
Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date --Title: Roof Beam Plan - 2 --\_\_\_\_\_ --Page: S-07/12 ------





Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education



NOTE - CORROSION PROTECTION: GALVANIZED COATING THICKNESS SHALL NOT BE LESS THAN 80 MICRONS - ALL FILLET WELDS TO BE 4mm THICK - CONTRACTOR AND CONSULTANT TO CONFIRM ON SITE TRUSS SPAN AND DIMENSIONS BEFORE FABRICATION



Mohamed Jamaludheen School, Gn. Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education

Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date ---Title: Truss Type TR1 ---------Page: S-09/12 ------

	DIMENSION (L x B x D)	REINFORCEMENT
F1	3000 x 3000 x 500	T16@150 C/C B/W (B) & T12@200 C/C B/W (T)
F2	2800 x 2800 x 450	T16@150 C/C B/W (B) & T12@200 C/C B/W (T)
F3	2200 x 2200 x 300	T16@150 C/C B/W (B)
F4	1900 x 1900 x 300	T16@150 C/C B/W (B)
F5	1800 x 1800 x 300	T16@150 C/C B/W (B)
F6	1200 x 1200 x 300	T12@150 C/C B/W (B)
F7	900 x 900 x 300	T12@150 C/C B/W (B)

GROUND LEVEL		COLUMN REINFORCEMENT COLUMN
	• • • •	TIE BEAM
×		AS GIVEN
		<ul> <li>WATER PROOFING MEMBRANE</li> <li>FOOTING</li> </ul>
		_ 50MM THICK LEAN CONCRETE

**TYPICAL FOOTING SECTION** 

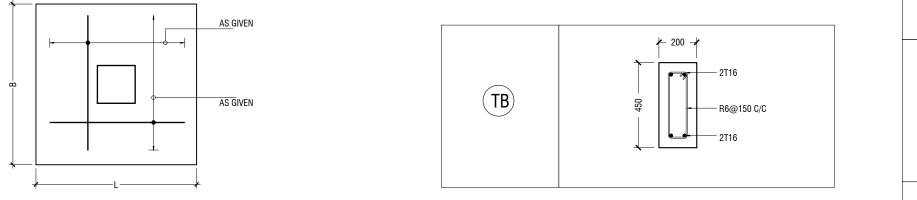
	DIMENSION (L x B x D)	REINFORCEMENT
F1	3000 x 3000 x 500	T16@150 C/C B/W (B) & T12@200 C/C B/W (T)
F2	2800 x 2800 x 450	T16@150 C/C B/W (B) & T12@200 C/C B/W (T)
F3	2200 x 2200 x 300	T16@150 C/C B/W (B)
F4	1900 x 1900 x 300	T16@150 C/C B/W (B)
F5	1800 x 1800 x 300	T16@150 C/C B/W (B)
F6	1200 x 1200 x 300	T12@150 C/C B/W (B)
F7	900 x 900 x 300	T12@150 C/C B/W (B)

NOTE:-	
COVER TO FOUNDATION	= 50mm
COVER TO COLUMNS	= 40mm
COVER TO BEAMS	= 35mm
COVER TO SLAB	= 30mm
LAPS	= Ø OF BAR x 45
BEAMS @END SUPPORT	$= \emptyset$ OF BAR x 12

FOUNDATION DEPTH = 1200mm

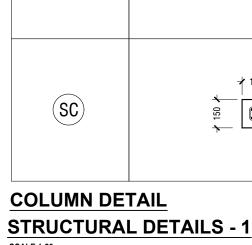
GRADE OF CONCRETE = M25

# FOUNDATION PADS



# PLAN

# **FOUNDATION DETAILS**



(C1)

(C2)

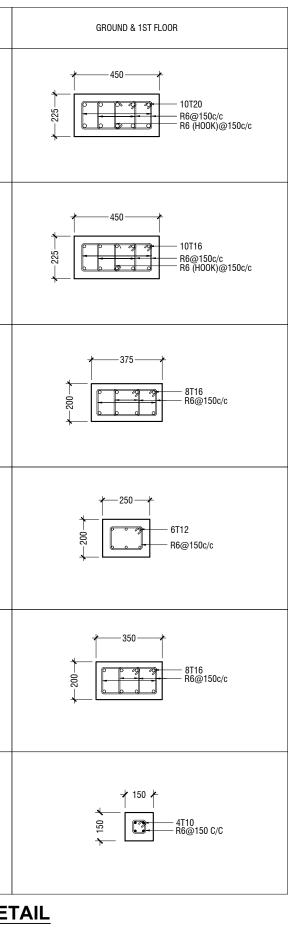
(C3)

(C4)

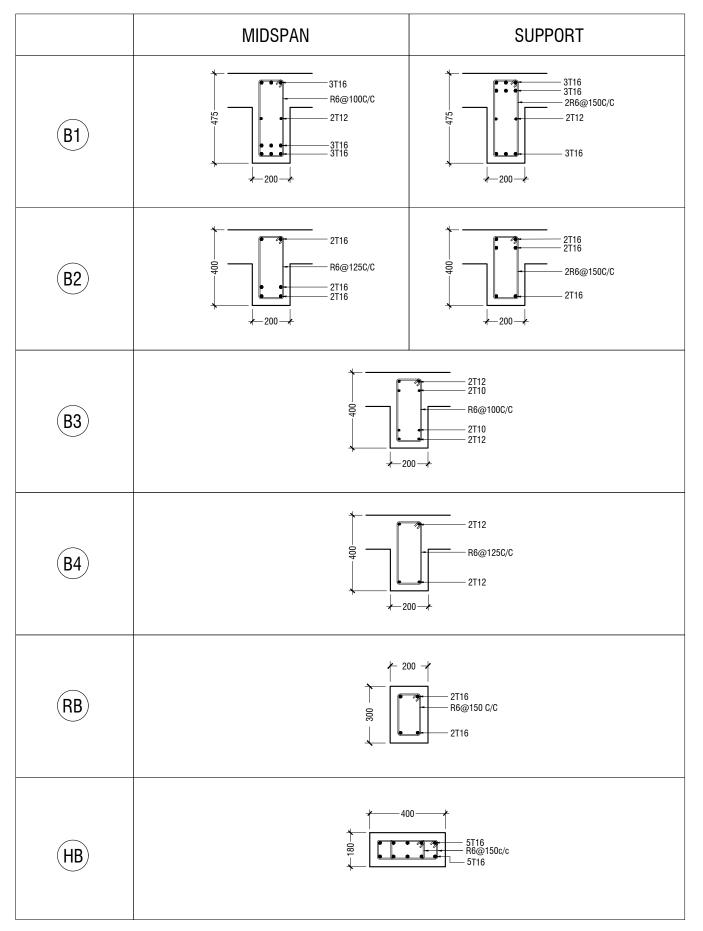
(C5)

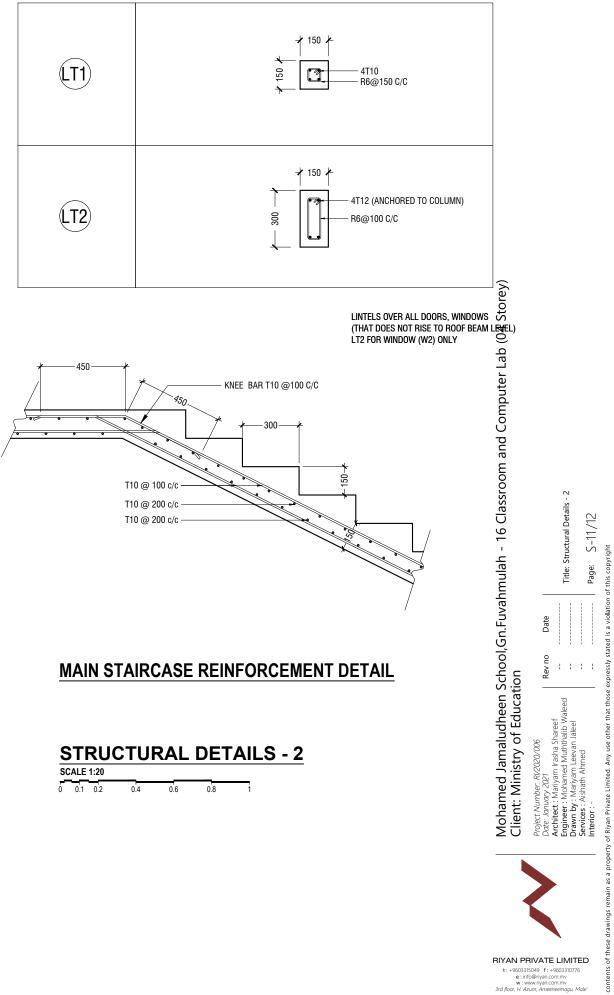


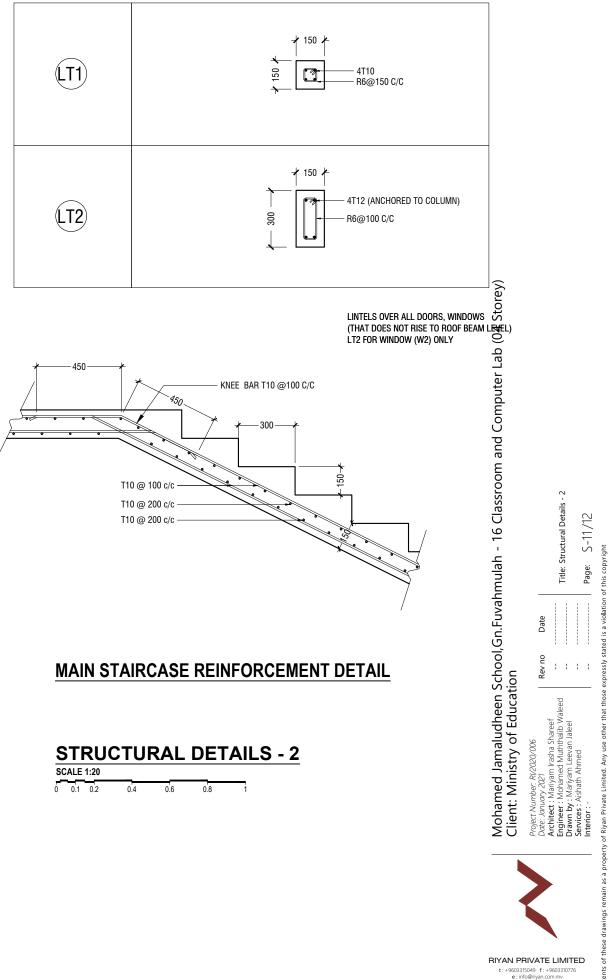
Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education Project Number: RI/2020/006 Date: January 2021 Architect : Mariyam Irasha Shareef Engineer : Mohamed Muththalib Waleed Drawn by : Mariyam Leevan Jaleel Services : Aishath Ahmed Interior : -Rev no Date -------Title: Structural Details - 1 -------------------Page: S-10/12







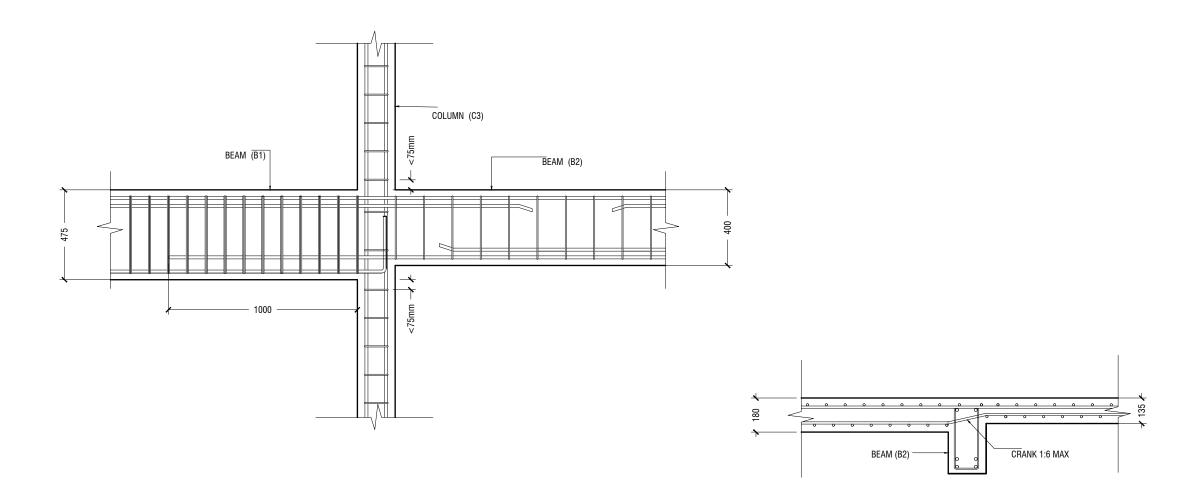




S	STI	RU	СТИ	RAL	DET	AILS
SC	CALE	1:20				
Ó	0.1	0.2	0.4	0.6	0.8	1

# **BEAM DETAIL**

NOTE: PROVIDE 25MM SPACER BAR @ 2000 C/C BETWEEN TWO LAYERS OF BEAM REINFORCEMENT



# **B1 TO B2 CONNECTION DETAIL**

# **SLAB THICKNESS REDUCTION DETAIL**

<b>STRUCTURAL DETAILS -</b>	3
SCALE 1:20	

- F		_						
0	0.1	0.2	0.4	0.6	0.8	1		



Mohamed Jamaludheen School,Gn.Fuvahmulah - 16 Classroom and Computer Lab (04 Storey) Client: Ministry of Education