



**Ministry of Jal Shakti
(A Government of India undertaking)**

**1st Floor, JP Krishna Building, Pallimukku, Pettah
Trivandrum - 695024**

TENDER DOCUMENT FOR

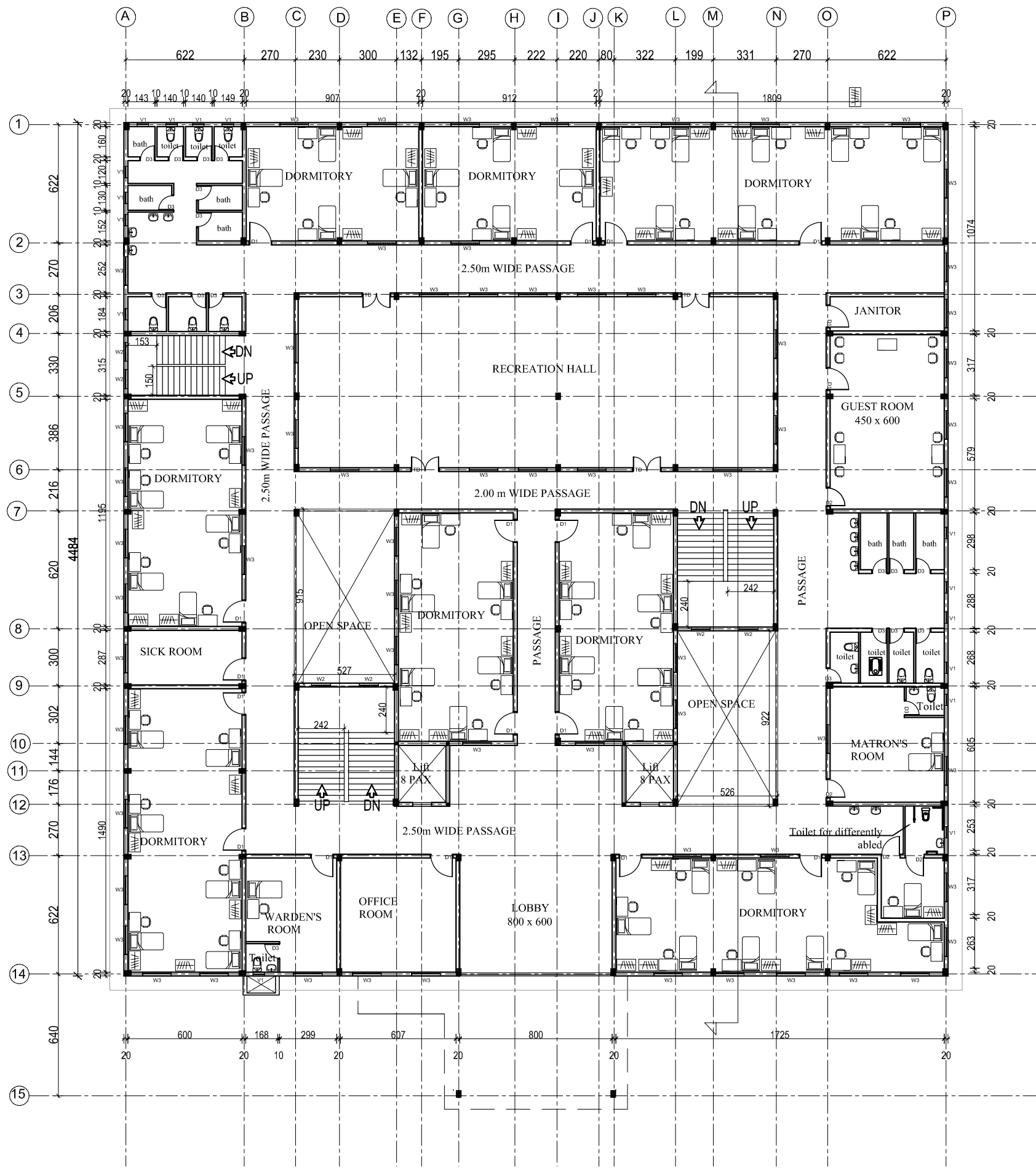
**Construction of Accommodation complex(Gents
Hostel,Ladies Hostel & Residential complex)
,Karyavattom Campus ,Trivandrum**

WAP/INFRA/KERALA/2025/KUB/508

Date: 29-03-2025

Volume-II DRAWINGS

ARCHITECTURAL



DOOR & WINDOW SCHEDULE			
SNO.	NAME	DESCRIPTION	SIZE
1.	D	Main door	2x2.4m
2.	TD	Double door	1.5x2.4m
3.	D1	Door	1.2x2.4m
4.	D2	Door/ toilet door	1x2.1m
5.	D3	Toilet door	0.8x2.1m
6.	W2	Window	1X1.5m
7.	W3	Window	1.5x1.5m
8.	V1	Ventilator	0.6x0.6m

AREA STATEMENT	
BASEMENT	828.12 SQM
GROUND FLOOR	1922.68 SQM
FIRST FLOOR	1846.25 SQM
SECOND FLOOR	1846.25 SQM
TERRACE	148.56 SQM
TOTAL B/UP AREA	6591.86 SQM

NOTES :

- ALL MEASUREMENTS ARE IN cm unless specified otherwise.
- This drawing should not be scaled.
- The measurements are to be checked on site before construction.

**WAPCOS LIMITED**
(A Government of India Undertaking)
Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
Pollimukku, Pettah
Trivandrum 695024, Kerala

APPROVED BY -

CHECKED BY -

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME :
**UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)**

**SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
FIRST FLOOR PLAN**

DATE : 29/03/2025

SCALE : NTS

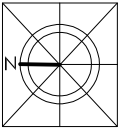
SHEET SIZE : A3

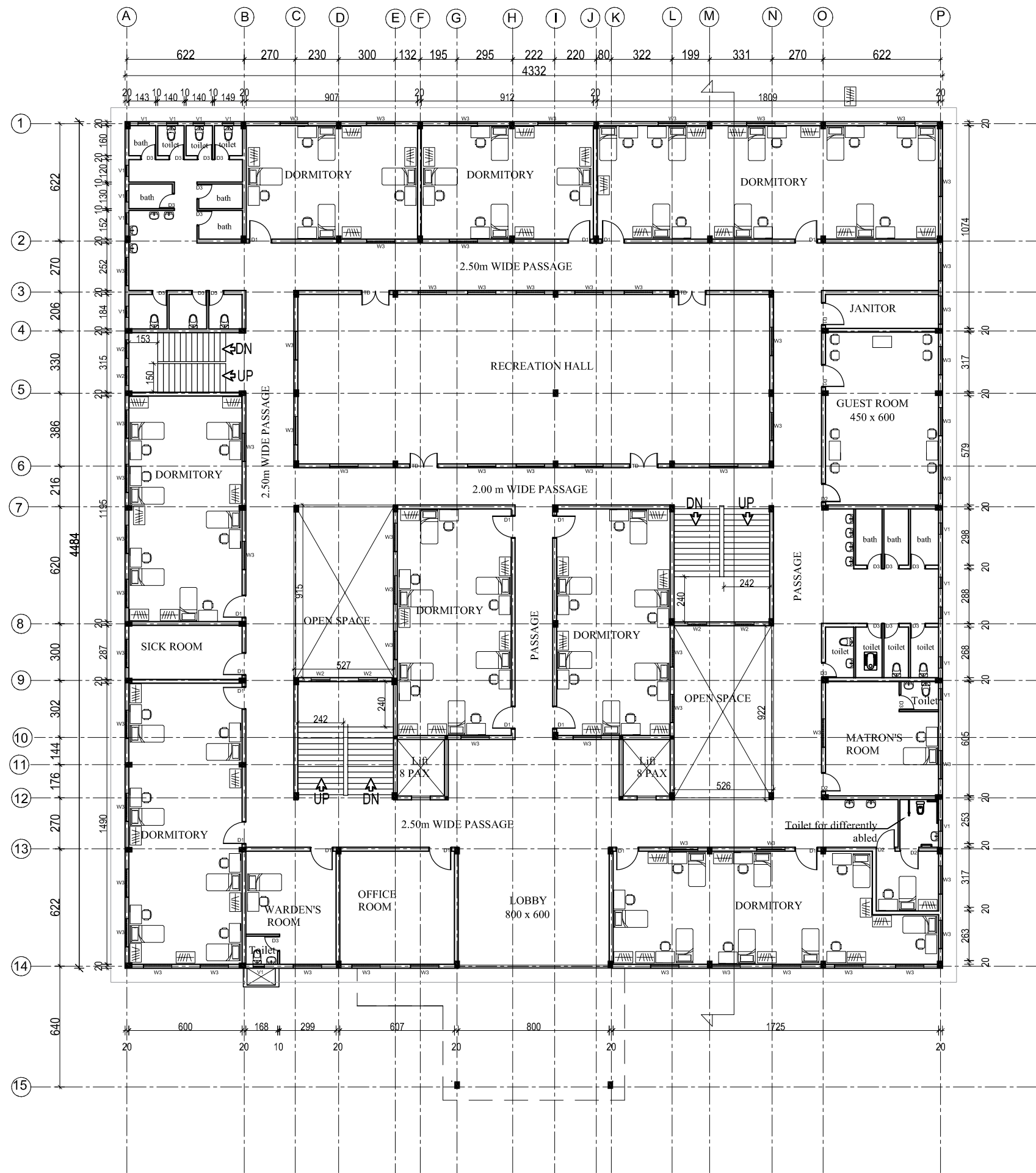
SHEET NO :

DRAWN BY :

DRAWING NO :

DRAWING STATUS : FOR TENDER





DOOR & WINDOW SCHEDULE			
SNO.	NAME	DESCRIPTION	SIZE
1.	D	Main door	2x2.4m
2.	TD	Double door	1.5x2.4m
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APPROVED BY -

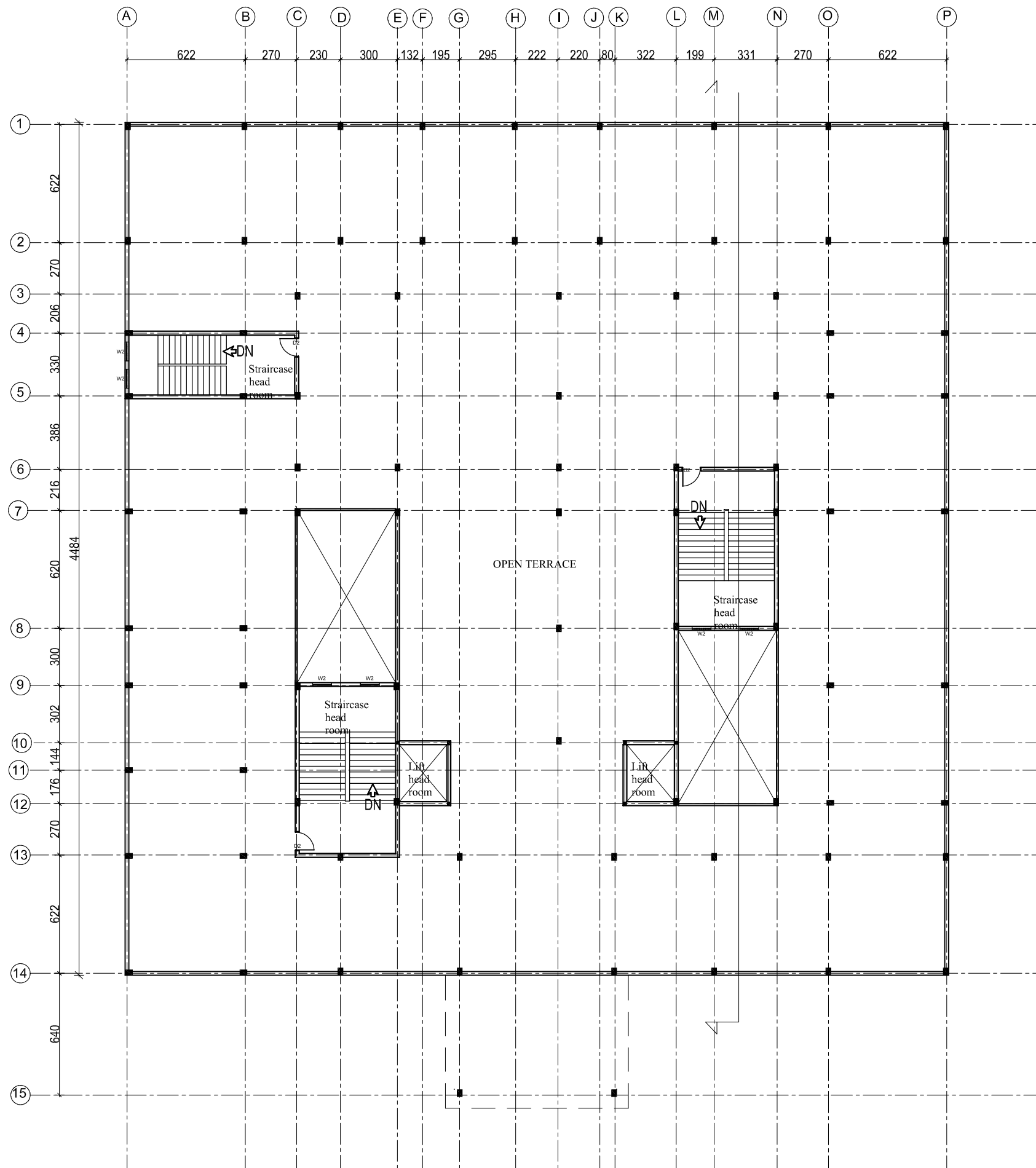
CHECKED BY -

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME : UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
SECOND FLOOR PLAN

DATE : 29/03/2025	
SCALE : NTS	
SHEET SIZE : A3	
SHEET NO :	
DRAWN BY :	
DRAWING NO :	
DRAWING STATUS : FOR TENDER	



DOOR & WINDOW SCHEDULE			
SNO.	NAME	DESCRIPTION	SIZE
1.	D	Main door	2x2.4m
2.	TD	Double door	1.5x2.4m
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AREA STATEMENT

BASEMENT	828.12 SQM
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FIRST FLOOR	1846.25 SQM
SECOND FLOOR	1846.25 SQM
TERRACE	148.56 SQM
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APPROVED BY -

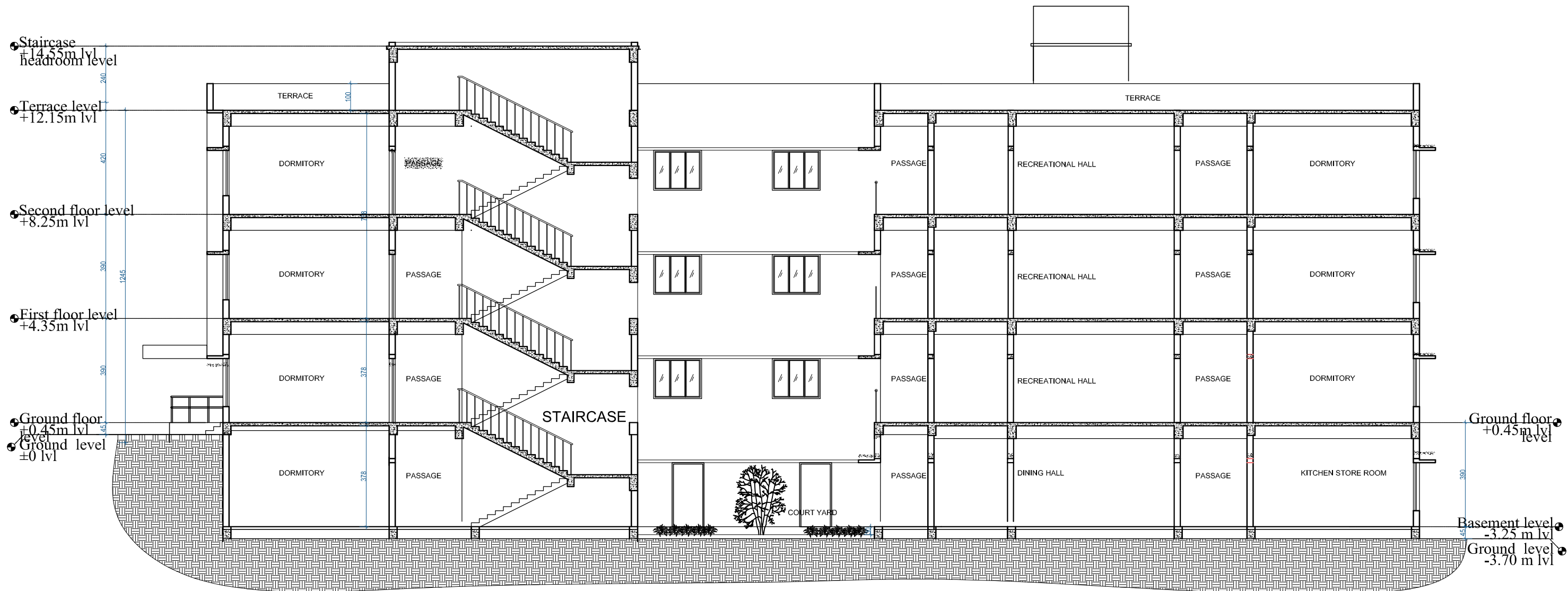
CHECKED BY -

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME : UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

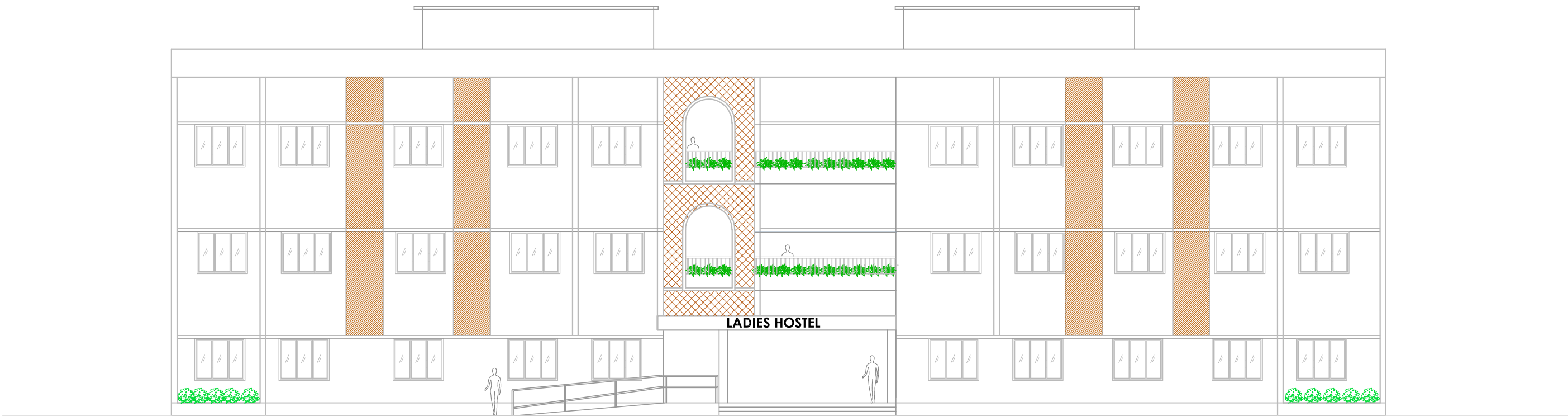
SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
TERRACE PLAN

DATE : 29/03/2025	
SCALE : NTS	
SHEET SIZE : A3	
SHEET NO :	
DRAWN BY :	
DRAWING NO :	
DRAWING STATUS : FOR TENDER	

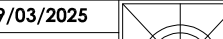


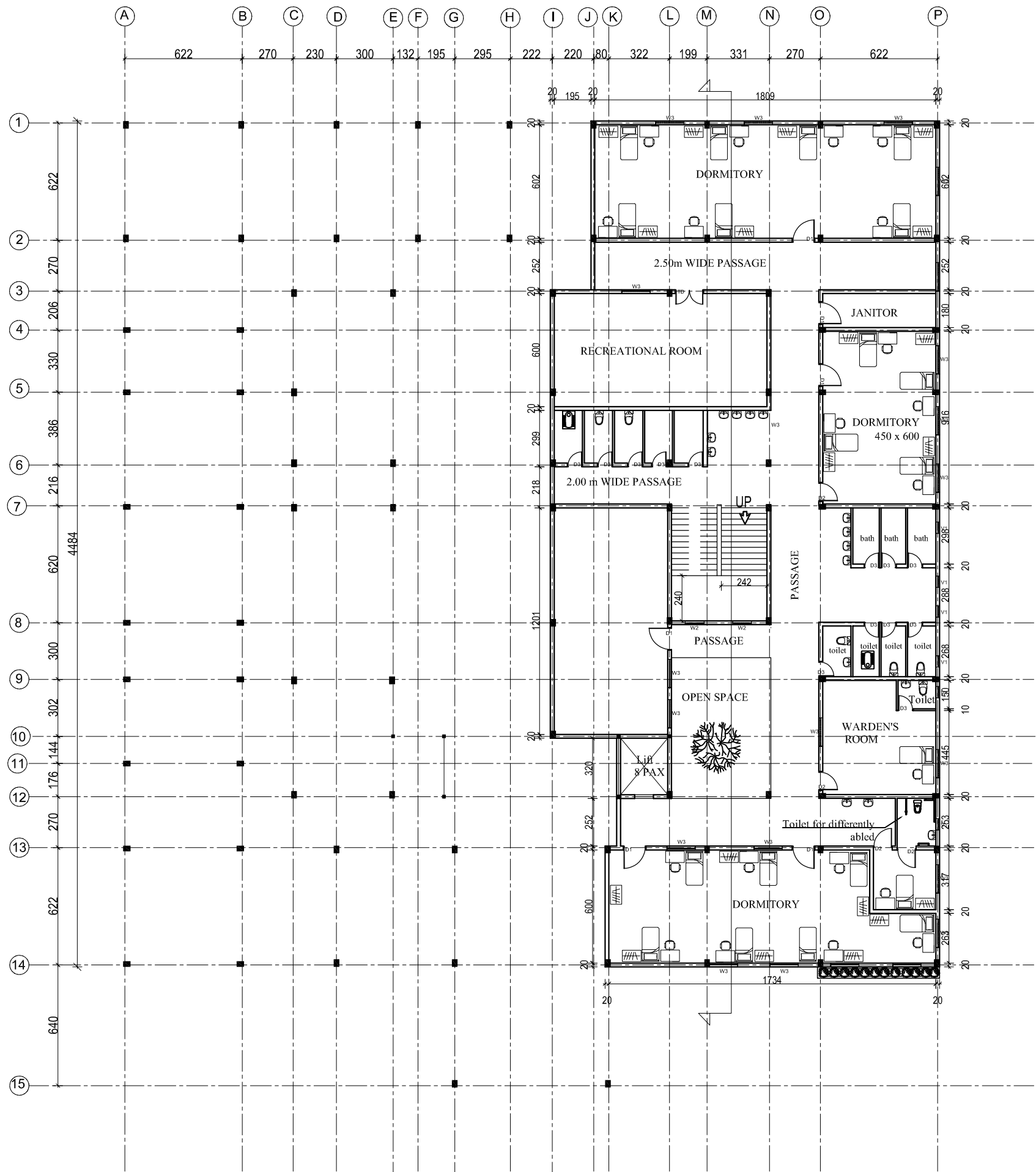
PROPOSED LADIES HOSTEL- SECTION

NOTES : • ALL MEASUREMENTS ARE IN cm unless specified otherwise. • This drawing should not be scaled. • The measurements are to be checked on site before construction.	 WAPCOS LIMITED (A Government of India Undertaking) Ministry of Jal Shakti Regional Office (Kerala) 1st Floor, JP Krishna Building Pollimukku, Pettah Trivandrum 695024, Kerala	APPROVED BY -	CHECKED BY -	REVISIONS			PROJECT NAME : UNIVERSITY OF KERALA PM-USHA PROJECT FOR MULTI-DISCIPLINARY EDUCATION & RESEARCH UNIVERSITIES (MERU)	DATE : 29/03/2025	
				NO.	DESCRIPTION	DATE		SCALE : NTS	
							SHEET SIZE : A3		
							SHEET NO :		
							DRAWN BY :		
			SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK - SECTION	DRAWING NO :					
				DRAWING STATUS : FOR TENDER					



PROPOSED LADIES HOSTEL BLOCK - FRONT ELEVATION

NOTES : • ALL MEASUREMENTS ARE IN cm unless specified otherwise. • This drawing should not be scaled. • The measurements are to be checked on site before construction.	 WAPCOS LIMITED (A Government of India Undertaking) Ministry of Jal Shakti Regional Office (Kerala) 1st Floor, JP Krishna Building Pollimukku, Pettah Trivandrum 695024, Kerala	APPROVED BY -	CHECKED BY -	REVISIONS			PROJECT NAME : UNIVERSITY OF KERALA PM-USHA PROJECT FOR MULTI-DISCIPLINARY EDUCATION & RESEARCH UNIVERSITIES (MERU)	DATE : 29/03/2025	
				NO.	DESCRIPTION	DATE		SCALE : NTS	
							SHEET SIZE : A3		
							SHEET NO :		
				SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK - FRONT ELEVATION			DRAWN BY :		
							DRAWING NO :		
							DRAWING STATUS : FOR TENDER		



DOOR & WINDOW SCHEDULE			
SNO.	NAME	DESCRIPTION	SIZE
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SECOND FLOOR	1846.25 SQM
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(A Government of India Undertaking)
Ministry of Jal Shakti
Regional Office (Kerala)
1st Floor, JP Krishna Building
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Trivandrum 695024, Kerala

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CHECKED BY -

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME :

UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
BASEMENT PLAN

DATE : 29/03/2025

SCALE : NTS

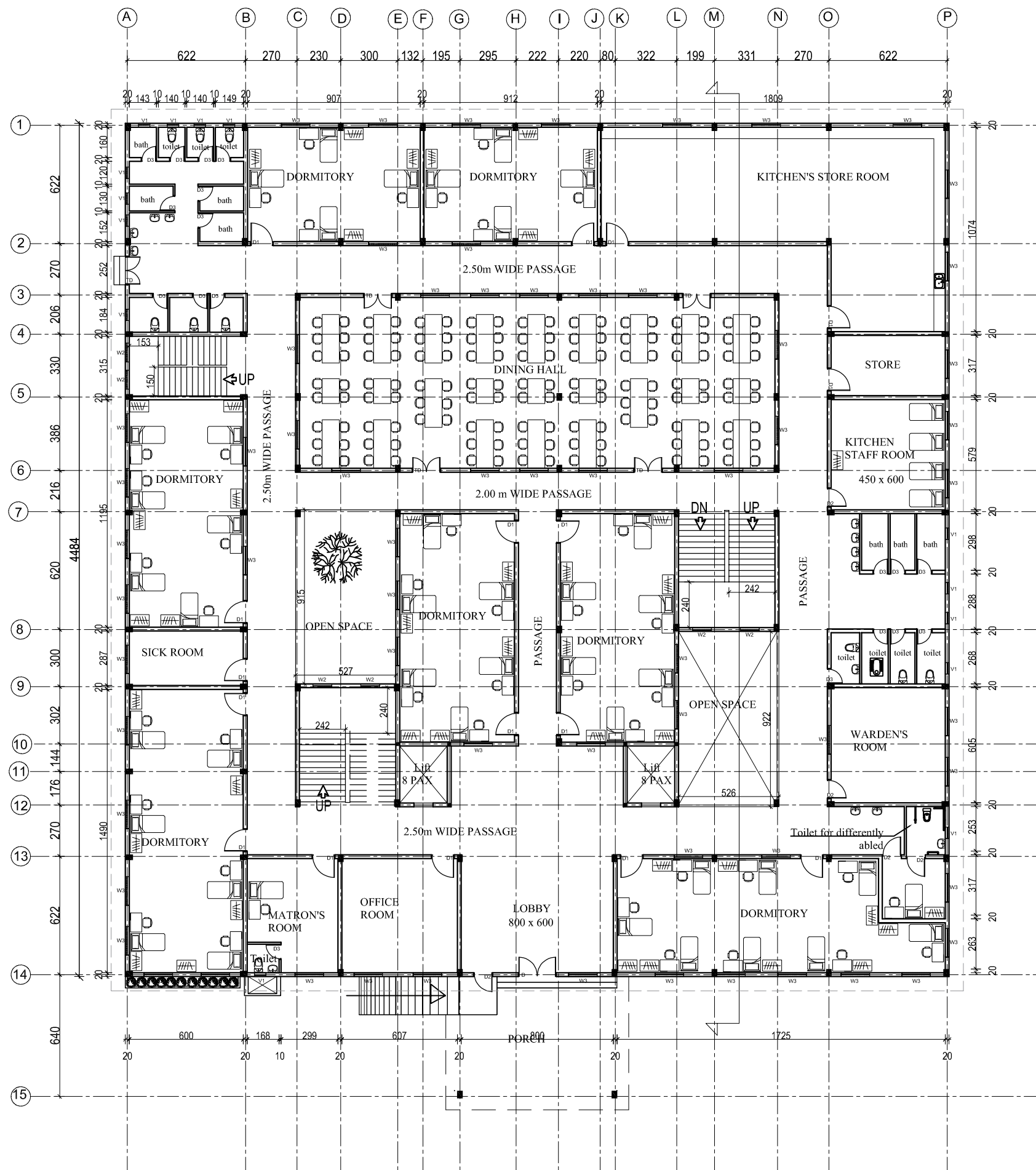
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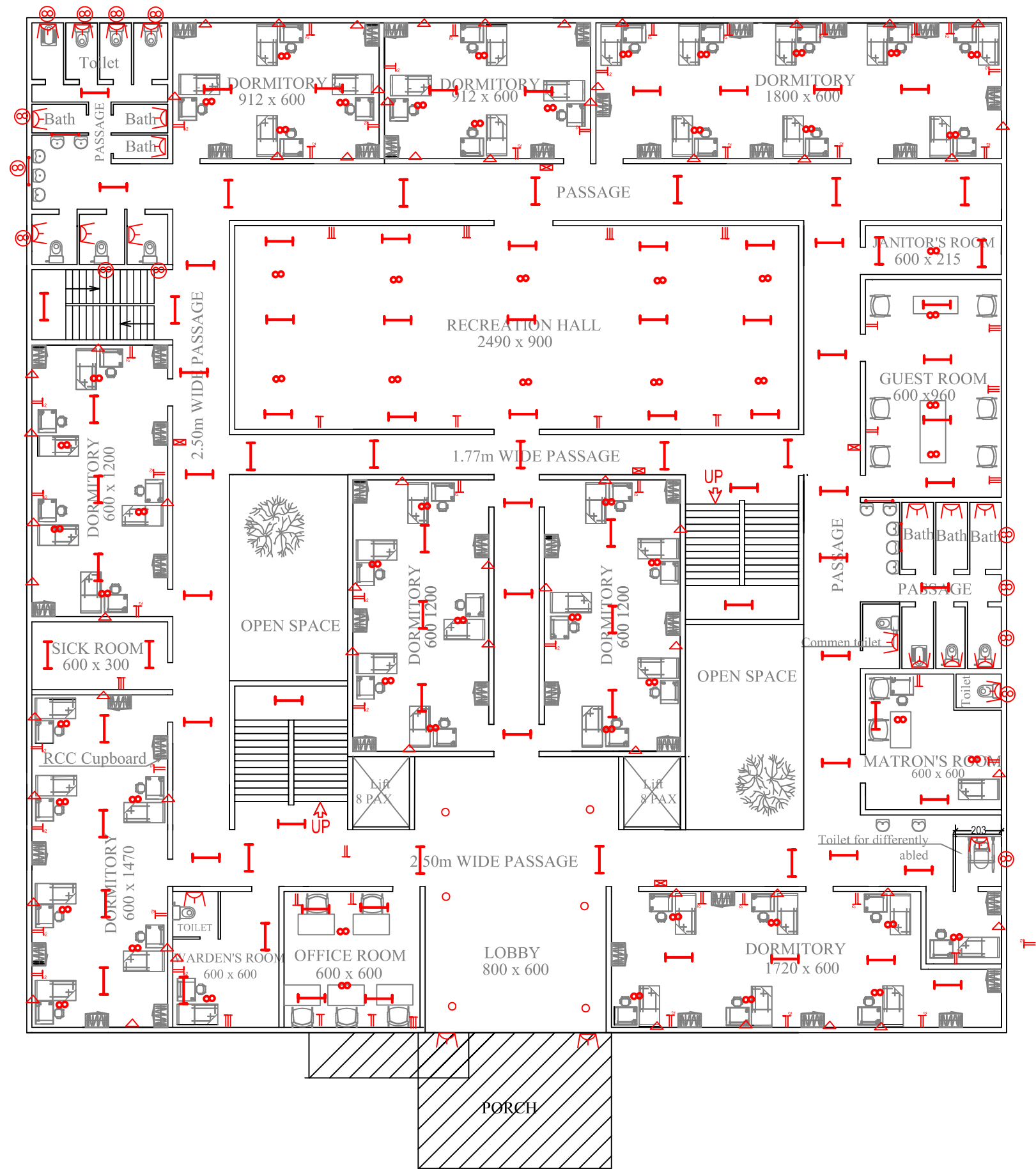
DRAWN BY :

DRAWING NO :

DRAWING STATUS : FOR TENDER



ELECTRICAL



LEGEND	
	Tube light
	Mirror lamp
	Down light
	Bulk head
	Batten
	Ceiling fan
	Exhaust fan
	5A plug
	Set of plug
	15A plug
	D.B.
	SMB
	Street light

NOTES :

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APPROVED BY -

CHECKED BY -

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME : UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
-FIRST FLOOR ELECTRICAL LAYOUT

DATE : 10/03/2025

SCALE : NTS

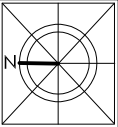
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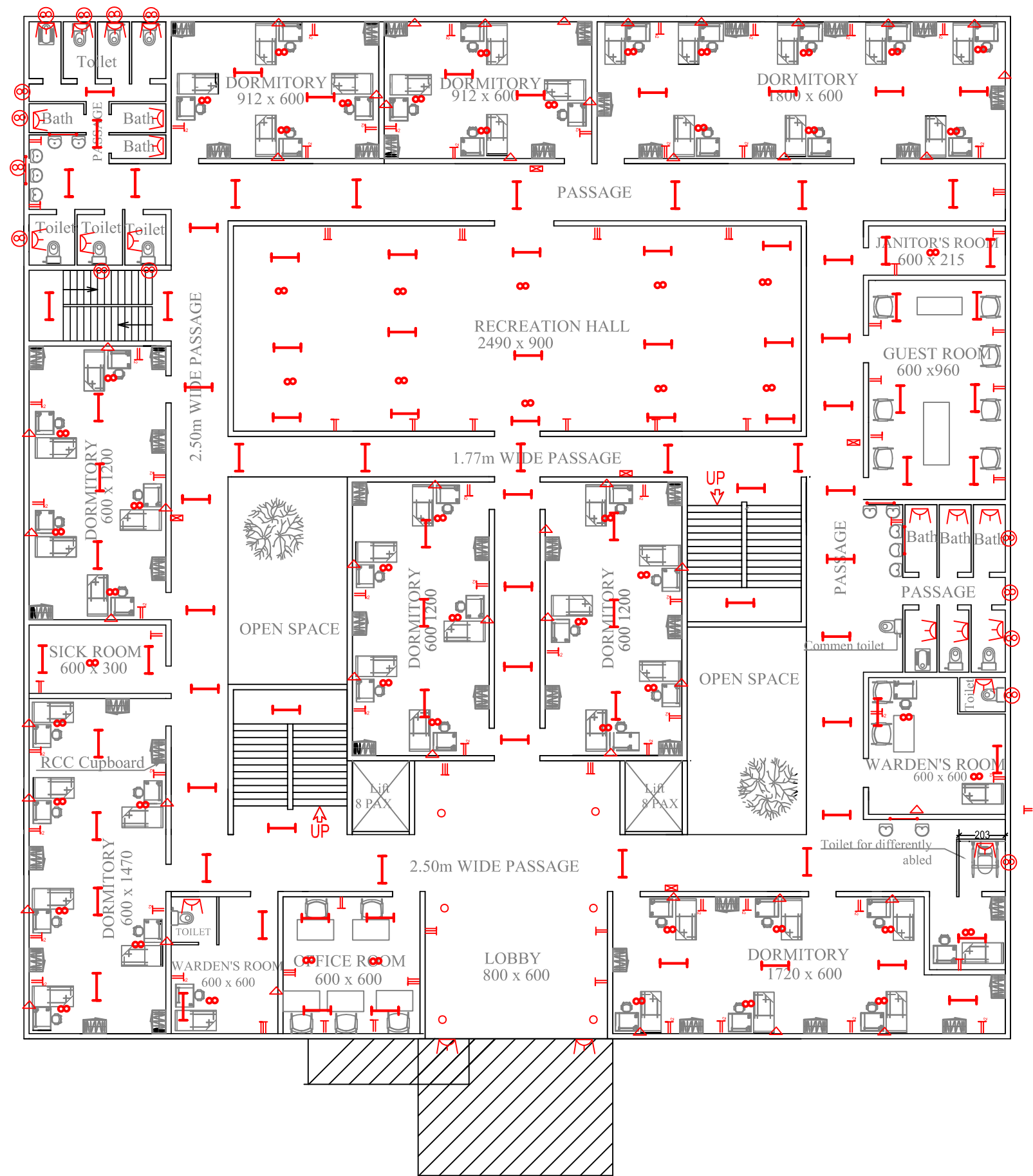
SHEET NO :

DRAWN BY :

DRAWING NO :

DRAWING STATUS :





LEGEND	
	Tube light
	Mirror lamp
	Down light
	Bulk head
	Batten
	Ceiling fan
	Exhaust fan
	5A plug
	Set of plug
	15A plug
	DB
	SMB
	Street light

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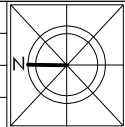
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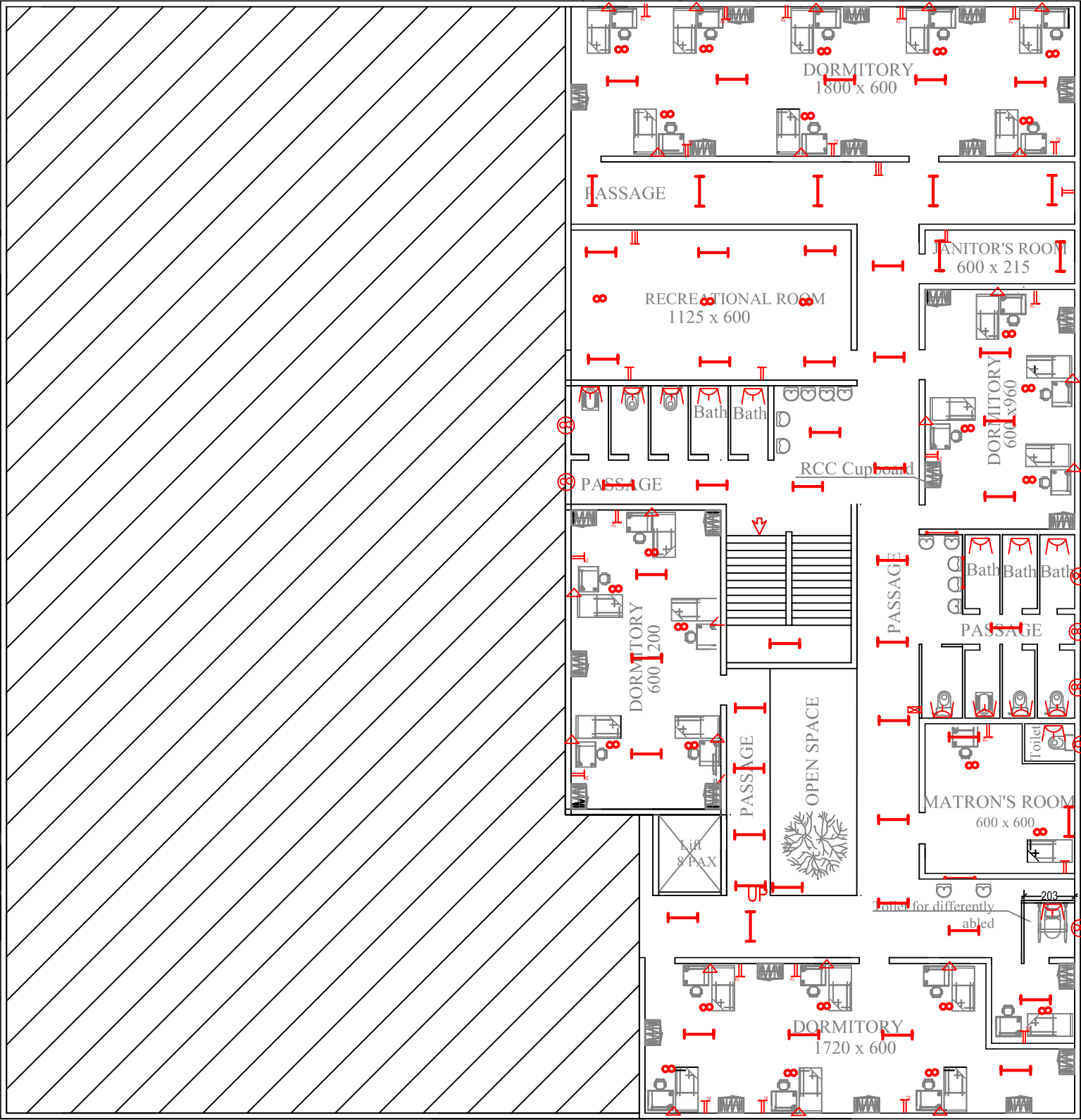
REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME : UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
-SECOND FLOOR ELECTRICAL LAYOUT

DATE : 10/03/2025
SCALE : NTS
SHEET SIZE : A3
SHEET NO :
DRAWN BY :
DRAWING NO :
DRAWING STATUS :





LEGEND	
	Tube light
	Mirror lamp
	Down light
	Bulk head
	Batten
	Ceiling fan
	Exhaust fan
	5A plug
	Set of plug
	15A plug
	DB
	SMB
	Street light

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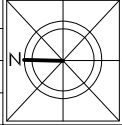
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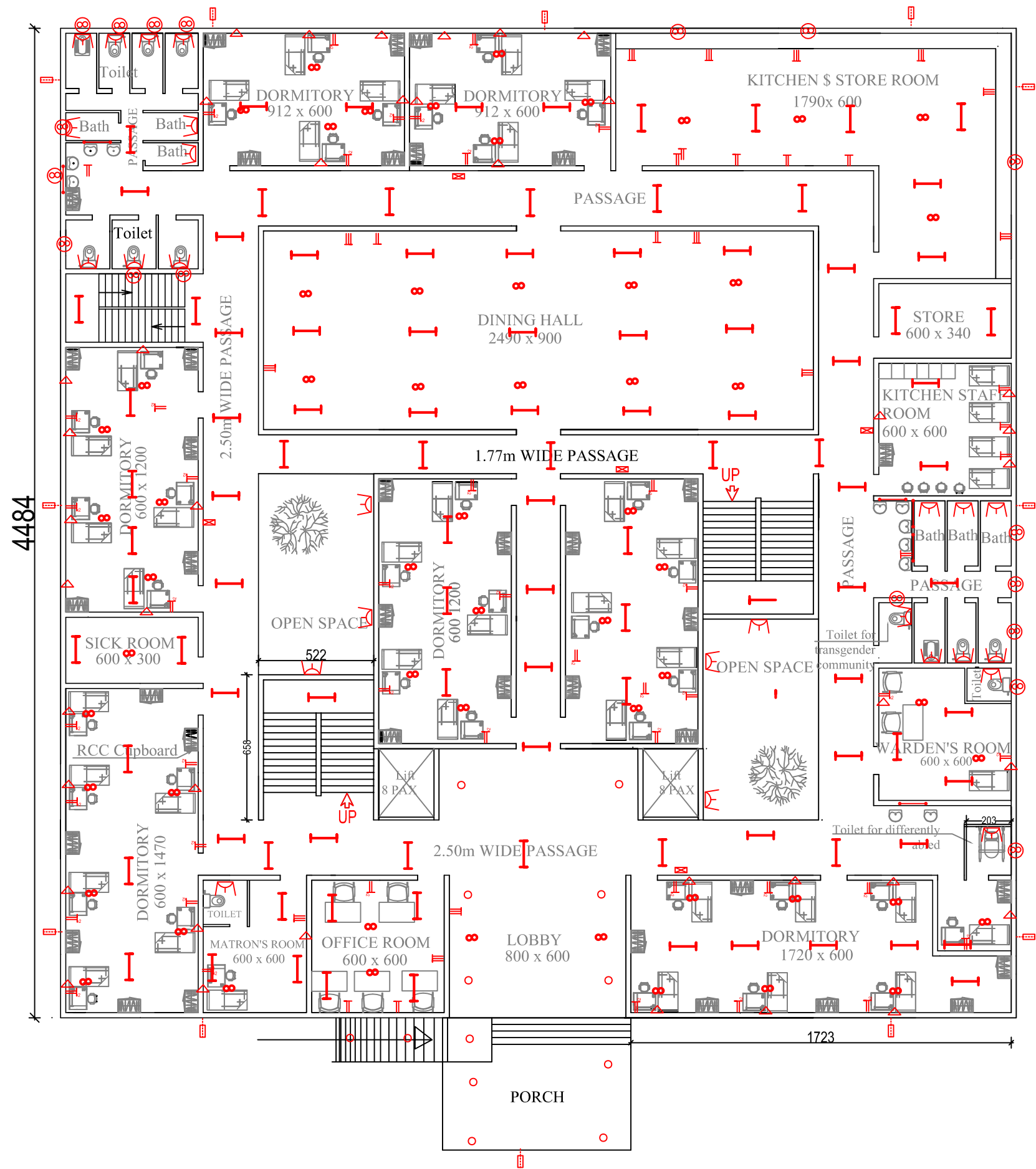
REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME : UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
-BASEMENT ELECTRICAL LAYOUT

DATE : 10/03/2025
SCALE : NTS
SHEET SIZE : A3
SHEET NO :
DRAWN BY :
DRAWING NO :
DRAWING STATUS :





LEGEND	
	Tube light
	Mirror lamp
	Down light
	Bulk head
	Batten
	Ceiling fan
	Exhaust fan
	5A plug
	Set of plug
	15A plug
	DB
	SMB
	Street light

NOTES :

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APPROVED BY -

CHECKED BY -

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT NAME : UNIVERSITY OF KERALA
PM-USHA PROJECT FOR MULTI-DISCIPLINARY
EDUCATION & RESEARCH UNIVERSITIES (MERU)

SHEET TITLE : PROPOSED LADIES HOSTEL BLOCK
-GROUND FLOOR ELECTRICAL LAYOUT

DATE : 10/03/2025

SCALE : NTS

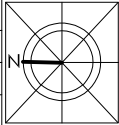
SHEET SIZE : A3

SHEET NO :

DRAWN BY :

DRAWING NO :

DRAWING STATUS :



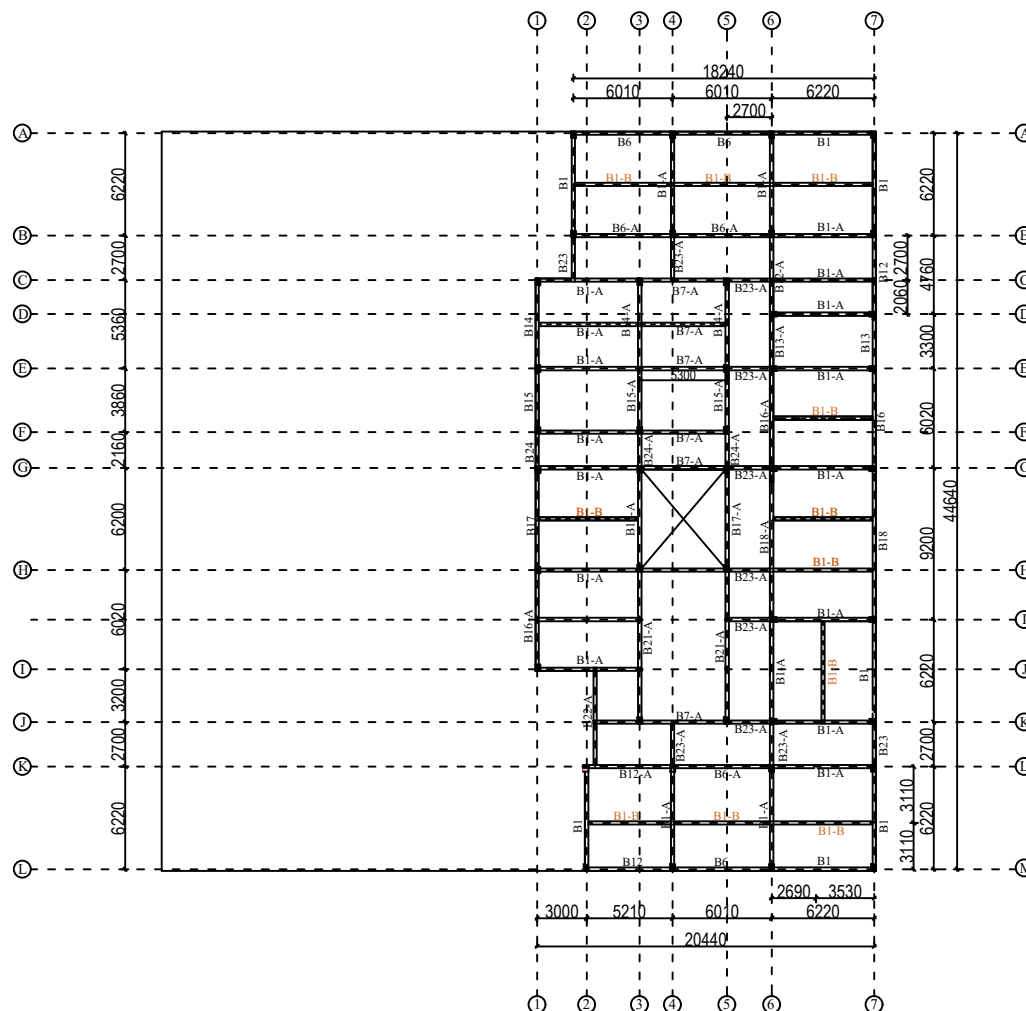
STRUCTURAL

7 -SCHEDULE OF GRADE BEAMS OF THE PROPOSED PROJECT (C.S SIZE & REINFORCEMENT DETAILS)

GROUP	CLEAR SPAN L	C.S DIMENSION BXD	REINFORCEMENT DETAILS			CRITICAL ZONES			TYPICAL SECTION	
			BOTTOM MAIN BARS	TOP MAIN BARS	STIRRUP (GENERAL)	LAP L _s	DEVP: L _d	CONFINED L ₀	MID SPAN SECTION CS @ P-P	END SPAN SECTION CS @ Q-Q
G13 G16 G18 G22 G23	2160 to 3860	250 x 300	4 Y 16	3 Y 12	Y8@130 to 180 c/c	800mm for Y 16 600mm for Y12	800mm for Y 16 600mm for Y12	600mm		
G2 G3 G4 G5 G7 G8 G11 G12 G15 G19	4020 to 5360	250 x 400	5 Y 16	3 Y 16	Y8@130 to 180 c/c	800mm for Y 16	800mm for Y 16	800mm		
G1 G6 G14 G17 G24 G25	5900 to 6400	250 x 500	6 Y 16	3 Y 16	Y8@130 to 180 c/c	800mm for Y 16	800mm for Y 16	1000mm		
G9 G10 G20 G21	8000 to 9200	300 x 700	6 Y 20	3 Y 16	Y8@130 to 180 c/c	1000mm for Y 20 800mm for Y 16	1000mm for Y 20 800mm for Y 16	1500mm		

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING							STRUCTURAL CONSULTANT
PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION	 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpmcs@gmail.com Ph: +91 9447126629 Office: 0474-2792700	
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF GRADE BEAMS		
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 10		

8-A.STRUCTURAL LAYOUT PLAN OF SUPERSTRUCTURE- (ROOF BEAMS - BASEMENT FLOOR)



DETAILS OF ROOF BEAM

Group			EFF: Span (In mm)
1.	B1 L-Beam	B1-A T-Beam	6220
2.	B2 L-Beam	B2-A T-Beam	5000
3.	B3 L-Beam	B3-A T-Beam	4320
4.	B4 L-Beam	B4-A T-Beam	4990
5.	B5 L-Beam	B5-A T-Beam	4420
6.	B6 L-Beam	B6-A T-Beam	6010
7.	—	B7-A T-Beam	5300
8.	—	B8-A T-Beam	8440
9.	—	B9-A T-Beam	8000
10.	B10 L-Beam	B10-A T-Beam	9260
11.	B11 L-Beam	B11-A T-Beam	5210
12.	B12 L-Beam	B12-A T-Beam	4760
13.	B13 L-Beam	B13-A T-Beam	3300
14.	B14 L-Beam	B14-A T-Beam	5360
15.	B15 L-Beam	B15-A T-Beam	3860
16.	B16 L-Beam	B16-A T-Beam	6020
17.	B17 L-Beam	B17-A T-Beam	6200
18.	B18 L-Beam	B18-A T-Beam	9200
19.	B19 L-Beam	B19-A T-Beam	3000
20.	B20 L-Beam	B20-A T-Beam	4460
21.	—	B21-A T-Beam	9220
22.	—	B22-A T-Beam	5900
23.	B23 L-Beam	B23-A T-Beam	2700
24.	—	B24-A T-Beam	2160
25.	B25 L-Beam	—	6400

ROOF BEAM DETAILS

R.C.C	STEEL	COVER	STRIPPING TIME	CURING
M-25	Fe-500	20 mm	Roof beam - 14 Days	7 DAYS

SPECIAL NOTES:

1. BEAMS HAVE BEEN DESIGNED INDIVIDUALLY BASED ON THEIR STRUCTURAL BEHAVIOUR AND DIFFERENT SECTION ARE PROVIDED FOR EACH BEAM. FOR PRACTICAL PURPOSE BIGGEST SECTION MAY BE PROVIDED FOR CONTINUOUS BEAMS .

Ref.No:	DATE :	DESIGNED:	DRAWN:	PLATE NO: 11
YSCASE,194/2025	07- 03- 2025	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCALE-1:100,All Dimensions are in Millimeter

PROJECT

**PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING**

DELINEATION

STRUCTURAL LAYOUT PLAN OF ROOF BEAMS

CLIENT

M/S WAPCOS LTD

LOCATION

**KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM**

AREA : (sq.m)

Basement Floor	: 885.50 Sqm
Ground Floor	: 1684.21 Sqm
First Floor	: 1684.21 Sqm
Second Floor	: 1684.21 Sqm
Total	: 5938.13Sqm

PROJECT NUMBER

4

GENERAL NOTE

1. Do not Scale Dimensions govern in drawings
2. All Dimensions are in Millimeter unless noted otherwise.
3. All dimensions shall be verified at site before proceeding the work.
4. All Levels are in Meters unless noted otherwise.

SIGNATURE

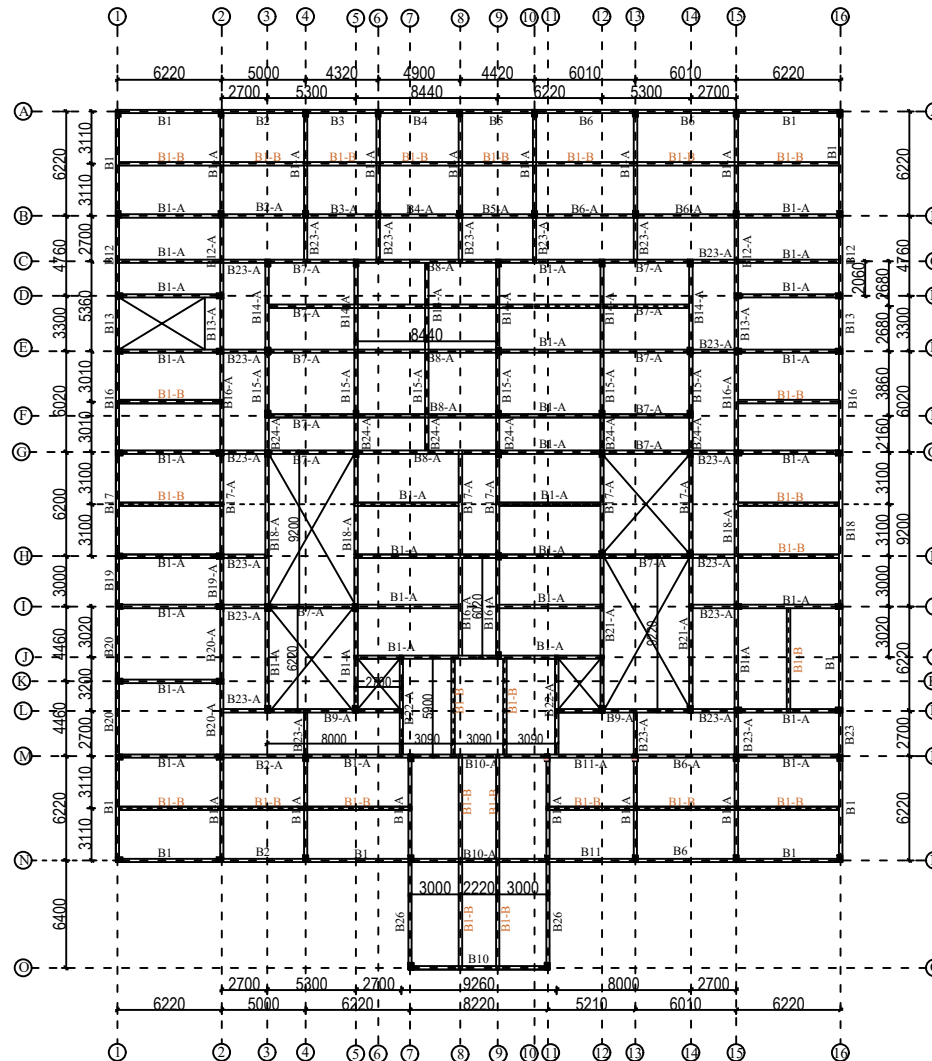
CLIENT	CONSULTANT
---------------	-------------------

STRUCTURAL CONSULTANT



Y- Shakh, Nalanda Nagar-97
Thirumullavaram P.O. Kollam - 12
e-mail: yshakhpmcs@gmail.com
Ph: +91 9447126629
Office: 0474-2792700

8-B.STRUCTURAL LAYOUT PLAN OF SUPERSTRUCTURE- (ROOF BEAMS - BASEMENT FLOOR)



DETAILS OF ROOF BEAM

Group			EFF: Span (In mm)
1.	B1 L-Beam	B1-A T-Beam	6220
2.	B2 L-Beam	B2-A T-Beam	5000
3.	B3 L-Beam	B3-A T-Beam	4320
4.	B4 L-Beam	B4-A T-Beam	4990
5.	B5 L-Beam	B5-A T-Beam	4420
6.	B6 L-Beam	B6-A T-Beam	6010
7.	—	B7-A T-Beam	5300
8.	—	B8-A T-Beam	8440
9.	—	B9-A T-Beam	8000
10.	B10 L-Beam	B10-A T-Beam	9260
11.	B11 L-Beam	B11-A T-Beam	5210
12.	B12 L-Beam	B12-A T-Beam	4760
13.	B13 L-Beam	B13-A T-Beam	3300
14.	B14 L-Beam	B14-A T-Beam	5360
15.	B15 L-Beam	B15-A T-Beam	3860
16.	B16 L-Beam	B16-A T-Beam	6020
17.	B17 L-Beam	B17-A T-Beam	6200
18.	B18 L-Beam	B18-A T-Beam	9200
19.	B19 L-Beam	B19-A T-Beam	3000
20.	B20 L-Beam	B20-A T-Beam	4460
21.	—	B21-A T-Beam	9220
22.	—	B22-A T-Beam	5900
23.	B23 L-Beam	B23-A T-Beam	2700
24.	—	B24-A T-Beam	2160
25.	B25 L-Beam	—	6400

ROOF BEAM DETAILS

R.C.C	STEEL	COVER	STRIPPING TIME	CURING
M-25	Fe-500	20 mm	Roof beam - 14 Days	7 DAYS

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Ref.No:	DATE :	DESIGNED:	DRAWN:	PLATE NO: 12
YSCASE,194/2025	07- 03- 2025	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCALE-1:100,All Dimensions are in Millimeter

PROJECT

PROPOSED LADIES HOSTEL. STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT
PLAN OF ROOF BEAMS

CLIENT

M/S WAPCOS LTD

LOCATION

**KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM**

AREA : (sq.m)

Basement Floor	: 885.50 Sqm
Ground Floor	: 1684.21 Sqm
First Floor	: 1684.21 Sqm
Second Floor	: 1684.21 Sqm
Total	: 5938.13Sqm

PROJECT NUMBER

4

GENERAL NOTE

1. Do not Scale Dimensions govern in drawings
2. All Dimensions are in Millimeter unless noted otherwise.
3. All dimensions shall be verified at site before proceeding the work.
4. All Levels are in Meters unless noted otherwise.

SIGNATURE

CLIENT	CONSULTANT

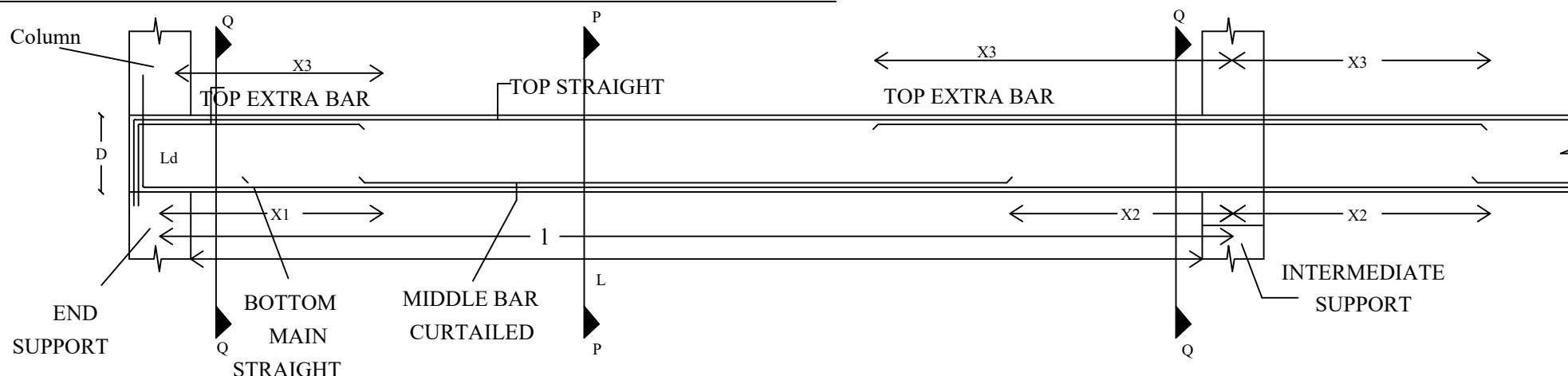
STRUCTURAL CONSULTANT	
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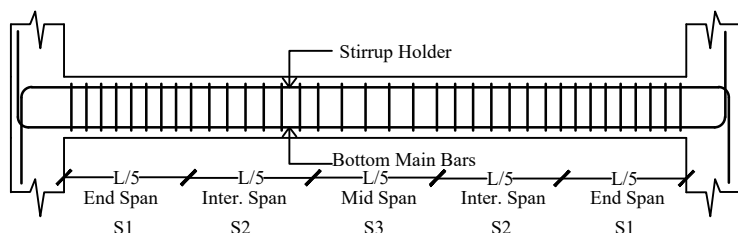
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Ph: +91 9447126629
Office: 0474-2792700

9. STRUCTURAL DETAILS OF ROOF BEAMS - TYPICAL DESIGN CONCEPT

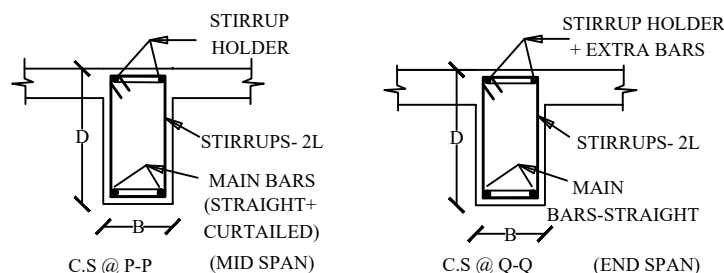
9-1 BEAMS - TYPICAL ARRANGEMENT OF REINFORCEMENTS IN BEAMS



9-2 ARRANGEMENT OF STIRRUPS IN BEAMS-TYPICAL



9-3. CROSS-SECTIONAL DETAIL



NOTE : For end beams the section shall be L- Beam as against T- Beam

9.4 INDEX

L = CLEAR SPAN OF BEAM
 l = EFFECTIVE SPAN OF BEAM
 X1 = CURTAILED DISTANCE FROM END SUPPORT
 X2 = CURTAILED DISTANCE FROM INTERMEDIATE SUPPORT
 X3 = LENGTH OF EXTRA BARS AT SUPPORTS
 Ls = LAP LENGTH AT JOINTS
 Ld = DEVELOPMENT LENGTH
 L0 = SPECIAL CONFINED LENGTH FOR SEISMIC LOAD
 D = DEPTH OF BEAM
 B = BREADTH OF BEAMS
 GRADE OF CONCRETE : M25
 GRADE OF STEEL : Fe500
 CLEAR COVER : 25mm

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

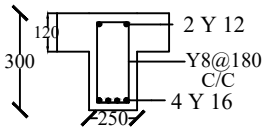
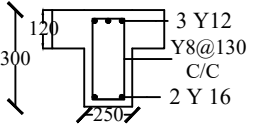
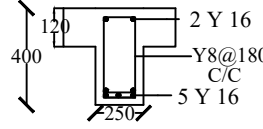
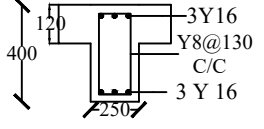
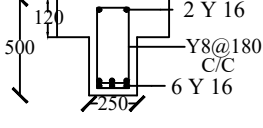
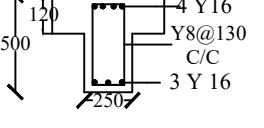
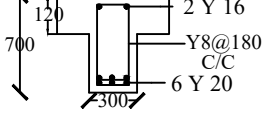
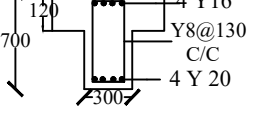
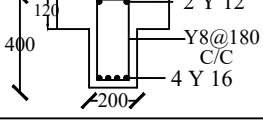
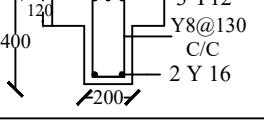
STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	REINFORCEMENT DETAILS OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM	PLATE NO: 13	

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10-A. SCHEDULE OF ROOF BEAMS OF THE PROPOSED PROJECT
(C.S & REINFORCEMENT DETAILS OF GROUND FLOOR)

T - BEAM

GROUP	CLEAR SPAN L	C.S SIZE B X D	REINFORCEMENT DETAILS					CRITICAL ZONE			C.S @ P.P MID SPAN	C.S @ Q.Q END SPAN
			BOTTOM MIDDLE STRAIGHT	BOTTOM MIDDLE CURT:	TOP STRT: STIRRUP HOLDER	TOP EXTRA	STIRRUPS	LAPS Ls	DEVE: LENGTH Ld	CONFINED L0		
B13-A B15-A B19-A B23-A B24-A	2160 to 3860	250 x 300	2 Y 16	2 Y 16	2 Y 12	1 Y 12	Y8@ 130 to 180 C/C	800 mm for Y 16 & 600 mm for Y 12	800 mm for Y 16 & 600 mm for Y 12	600mm		
B3-A B4-A B5-A B7-A B11-A B12-A B14-A B20-A	4020 to 5360	250 x 400	3 Y 16	2 Y 16	2 Y 16	1 Y 16	Y8@ 130 TO 180 C/C	800 mm for Y 16 & 600 mm for Y 12	800 mm for Y 16 & 600 mm for Y 12	800mm		
B1-A B6-A B16-A B17-A B22-A	5900 to 6400	250 x 500	3 Y 16	3 Y 16	2 Y 16	2 Y 16	Y8@ 130 TO 180 C/C	800 mm for Y 16	800 mm for Y 16	1000mm		
B8-A B9-A B10-A B18-A B21-A	8000 to 9220	300 x 700	4 Y 20	2 Y 20	2 Y 16	2 Y 16	Y8@ 130 TO 180 C/C	800 mm for Y 16 & 1000 mm for Y 20	800 mm for Y 16 & 1000 mm for Y 20	1500mm		
B1-B	5900 & 6220	200 x 400	2 Y 16	2 Y 16	2 Y 12	1 Y 12	Y8@ 130 TO 180 C/C	800 mm for Y 16 & 600 mm for Y 12	800 mm for Y 16 & 600 mm for Y 12	800mm		

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

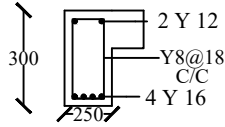
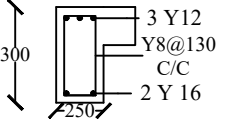
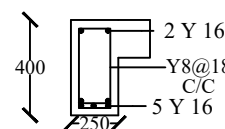
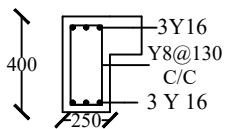
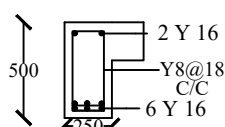
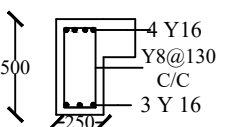
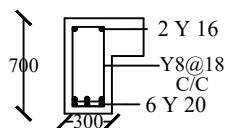
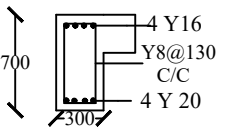
STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 14


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10-B. SCHEDULE OF ROOF BEAMS OF THE PROPOSED PROJECT
(C.S & REINFORCEMENT DETAILS OF GROUND FLOOR)

L - BEAM

GROUP	CLEAR SPAN L	C.S SIZE B X D	REINFORCEMENT DETAILS					CRITICAL ZONE			C.S @ P.P MID SPAN	C.S @ Q.Q END SPAN
			BOTTOM MIDDLE STRAIGHT	BOTTOM MIDDLE CURT:	TOP STRT: STIRRUP HOLDER	TOP EXTRA	STIRRUPS	LAPS Ls	DEVE: LENGTH Ld	CONFINED L0		
B13 B15 B19 B23	2160 to 3860	250 x 300	2 Y 16	2 Y 16	2 Y 12	1 Y 12	Y8@ 130 to 180 C/C	800 mm for Y 16 & 600 mm for Y 12	800 mm for Y 16 & 600 mm for Y 12	600mm		
B3 B4 B5 B11 B12 B14 B20	4020 to 5360	250 x 400	3 Y 16	2 Y 16	2 Y 16	1 Y 16	Y8@ 130 TO 180 C/C	800 mm for Y 16 & 600 mm for Y 12	800 mm for Y 16 & 600 mm for Y 12	800mm		
B1 B6 B16 B17 B25	5900 to 6400	250 x 500	3 Y 16	3 Y 16	2 Y 16	2 Y 16	Y8@ 130 TO 180 C/C	800 mm for Y 16	800 mm for Y 16	1000mm		
B10 B18	8000 to 9220	300 x 700	4 Y 20	2 Y 20	2 Y 16	2 Y 16	Y8@ 130 TO 180 C/C	800 mm for Y 16 & 1000 mm for Y 20	800 mm for Y 16 & 1000 mm for Y 20	1500mm		

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 15


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11-A. STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

GROUP	C.S SIZE BXD	SPAN		CURTAILMENT DETAILS OF MAIN BARS			STIRRUPS SPACING			STIRRUPS AT CRITICAL ZONE	
		CLEAR	EFFECTIVE	FROM END SUPPORT X1	FROM INT: SUPPORT X2	EXTRA BARS X3	END SPAN S1	INT: SPAN S2	MID SPAN S3	LAP ZONE Ss	CONFINING ZONE S0
B1,B1A	250 X 500	6020	6220	620	940	1500	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B2, B2A	250 X 400	4800	5000	500	750	1200	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B3, B3A	250 X 400	4120	4320	430	650	1030	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B4, B4A	250 X 400	4790	4990	500	750	1200	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B5, B5A	250 X 400	4220	4420	450	670	1060	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 16



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11-B. STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

GROUP	C.S SIZE BXD	SPAN		CURTAILMENT DETAILS OF MAIN BARS			STIRRUPS SPACING			STIRRUPS AT CRITICAL ZONE	
		CLEAR	EFFECTIVE	FROM END SUPPORT X1	FROM INT: SUPPORT X2	EXTRA BARS X3	END SPAN S1	INT: SPAN S2	MID SPAN S3	LAP ZONE Ss	CONFINING ZONE S0
B6,B6A	250 X 500	5810	6010	600	900	1450	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B7A	250 X 400	5100	5300	530	800	1280	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B8A	300 X 700	8240	8440	850	1270	2060	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B9A	300 X 700	7800	8000	800	1200	1950	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B10-A	300 X 700	9060	9260	920	1390	2270	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING						STRUCTURAL CONSULTANT
PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION	 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpmcs@gmail.com Ph: +91 9447126629 Office: 0474-2792700
	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS	
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 17	

11-B. STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

GROUP	C.S SIZE BXD	SPAN		CURTAILMENT DETAILS OF MAIN BARS			STIRRUPS SPACING			STIRRUPS AT CRITICAL ZONE	
		CLEAR	EFFECTIVE	FROM END SUPPORT X1	FROM INT: SUPPORT X2	EXTRA BARS X3	END SPAN S1	INT: SPAN S2	MID SPAN S3	LAP ZONE Ss	CONFINING ZONE S0
B11,B11A	250 X 400	5010	5210	520	780	1260	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B12,B12A	250 X 400	4560	4760	480	720	1140	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B13,B13A	250 X 300	3100	3300	330	500	780	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B14,B14A	250 X 400	5160	5360	540	800	1290	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B15,B15-A	250 X 300	3660	3860	390	580	920	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 18



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Office: 0474-2792700

11-B. STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

GROUP	C.S SIZE BXD	SPAN		CURTAILMENT DETAILS OF MAIN BARS			STIRRUPS SPACING			STIRRUPS AT CRITICAL ZONE	
		CLEAR	EFFECTIVE	FROM END SUPPORT X1	FROM INT: SUPPORT X2	EXTRA BARS X3	END SPAN S1	INT: SPAN S2	MID SPAN S3	LAP ZONE Ss	CONFINING ZONE S0
B16A	250 X 500	5820	6020	600	900	1460	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B17A	250 X 500	6000	6200	620	930	1500	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B18,B18A	300 X 700	9000	9200	920	1380	2250	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B19,B19A	250 X 300	2800	3000	300	450	700	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B20,B20-A	250 X 400	4260	4460	450	670	1070	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 19


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 Office: 0474-2792700

11-B. STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

GROUP	C.S SIZE BXD	SPAN		CURTAILMENT DETAILS OF MAIN BARS			STIRRUPS SPACING			STIRRUPS AT CRITICAL ZONE	
		CLEAR	EFFECTIVE	FROM END SUPPORT X1	FROM INT: SUPPORT X2	EXTRA BARS X3	END SPAN S1	INT: SPAN S2	MID SPAN S3	LAP ZONE Ss	CONFINING ZONE S0
B21,B21A	300 X 700	9020	9220	920	1380	2260	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B22A	250 X 500	5700	5900	590	890	1430	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C
B23,B23A	250 X 300	—	2700	—	—	—	—	—	—	—	—
B24A	250 X 300	—	2160	—	—	—	—	—	—	—	—
B25-A	250 X 500	6200	6400	640	960	1550	Y8@ 130 mm C/C	Y8@ 160 mm C/C	Y8@ 180 mm C/C	Y8@ 100 mm C/C	Y8@ 80 mm C/C

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

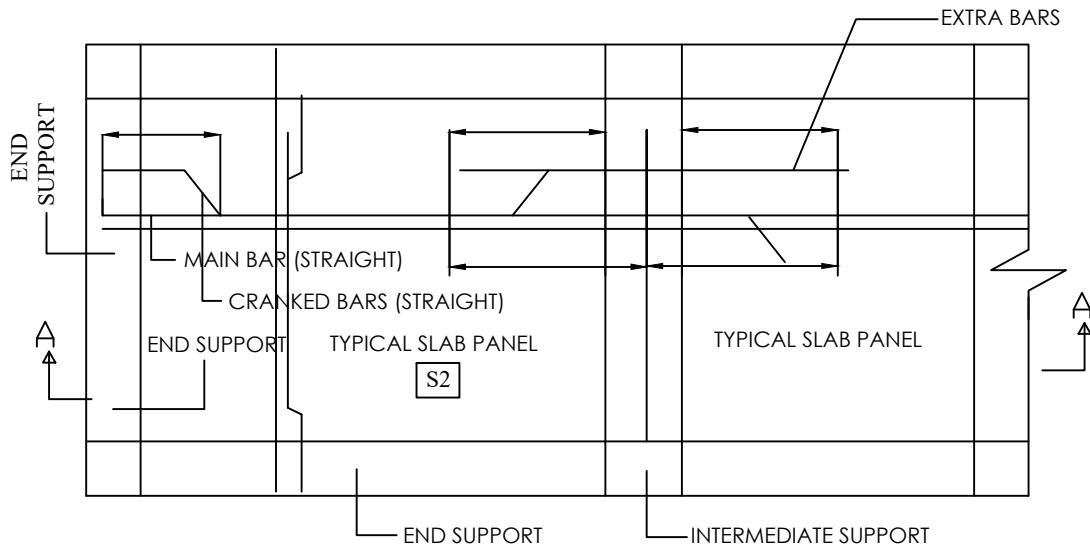
STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 20

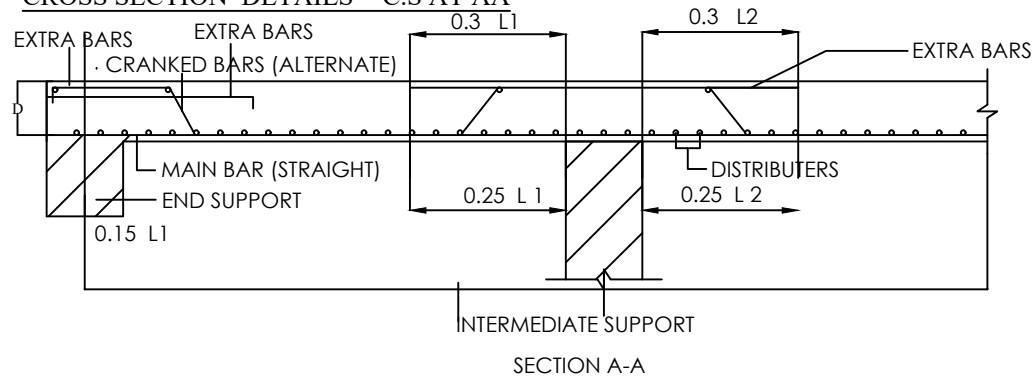

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 Office: 0474-2792700

12 . STRUCTURAL DETAILS OF ROOF SLABS

12.1 STRUCTURAL DETAILS OF TWO WAY SLAB-TYPICAL



12.2 CROSS SECTION DETAILS - C.S AT AA

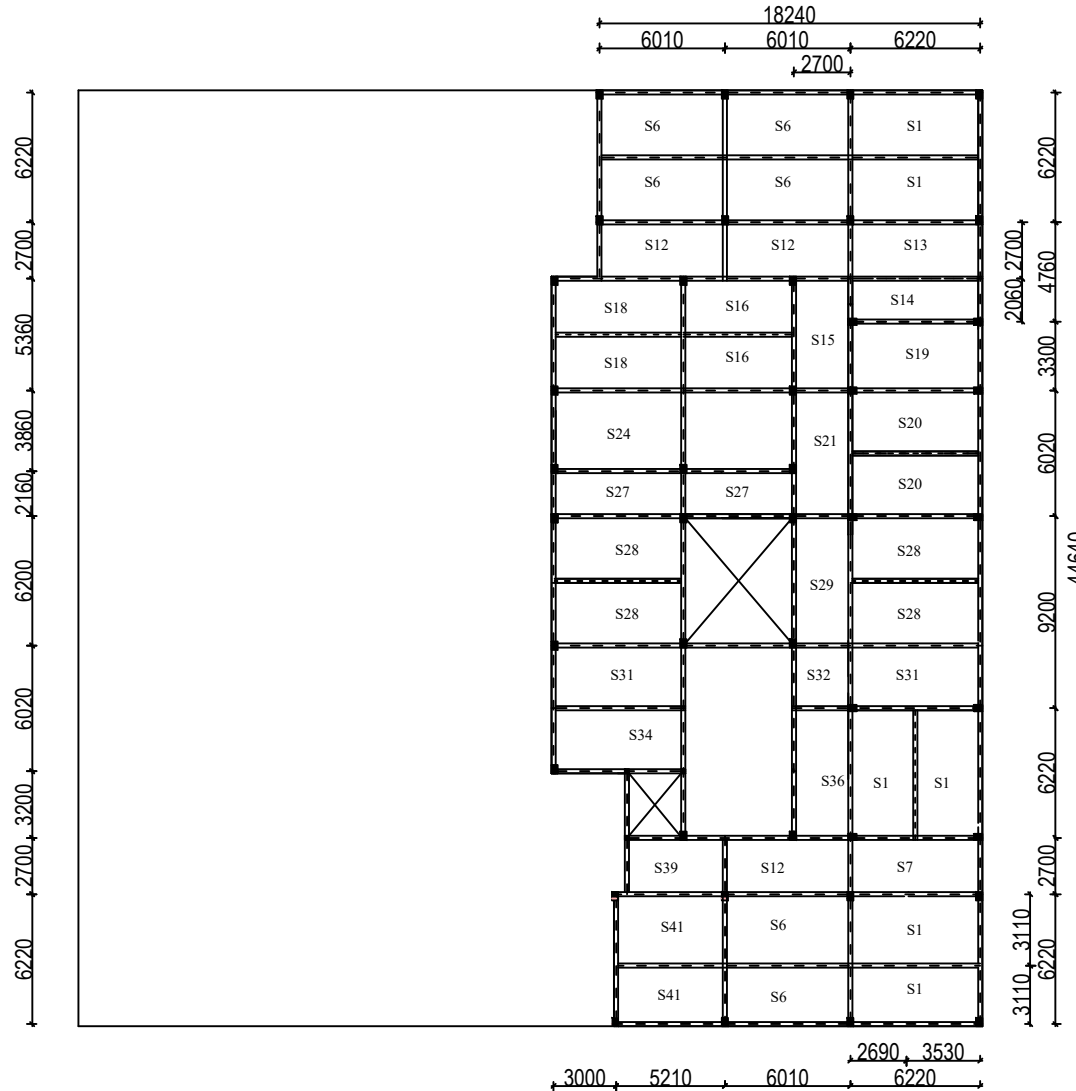


12.3 DESIGN DETAILS OF ROOF SLAB OF PROPOSED PROJECT

- | | |
|------------------------------|--|
| 1. THICKNESS OF SLAB | - 130 MM |
| 2. DESIGN MIX CONCRETE | - M25 |
| 3. GRADE OF REINFORCEMENT | - Fe - 500 D |
| 4. CLEAR COVER | - 25 mm |
| 8. CRANKED BARS | - EVERY ALTERNATE BARS |
| 9. CRANKED DISTANCE | - 0.05L FROM CENTER OF END SUPPORTS
&
0.25L FROM INTERMEDIATE SUPPORTS |
| 10. LENGTH OF EXTRA BARS TOP | - 0.3L FROM EACH SUPPORT |

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING						STRUCTURAL CONSULTANT
PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION	 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpmcs@gmail.com Ph: +91 9447126629 Office: 0474-2792700
	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF SLABS	
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 21	

13-A.STRUCTURAL LAYOUT PLAN OF SUPERSTRUCTURE- (ROOF SLABS - BASEMENT FLOOR)



PROJECT

PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT
PLAN OF ROOF SLAB

CLIENT

M/S WAPCOS LTD

LOCATION

KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM

AREA : (sq.m)

Basement Floor : 885.50 Sqm
Ground Floor : 1684.21 Sqm
First Floor : 1684.21 Sqm
Second Floor : 1684.21 Sqm
Total : 5938.13Sqm

PROJECT NUMBER

4

GENERAL NOTE

- 1.Do not Scale Dimensions govern in drawings
- 2.All Dimensions are in Millimeter unless noted otherwise.
- 3.All dimensions shall be verified at site before proceeding the work.
- 4.All Levels are in Meters unless noted otherwise.

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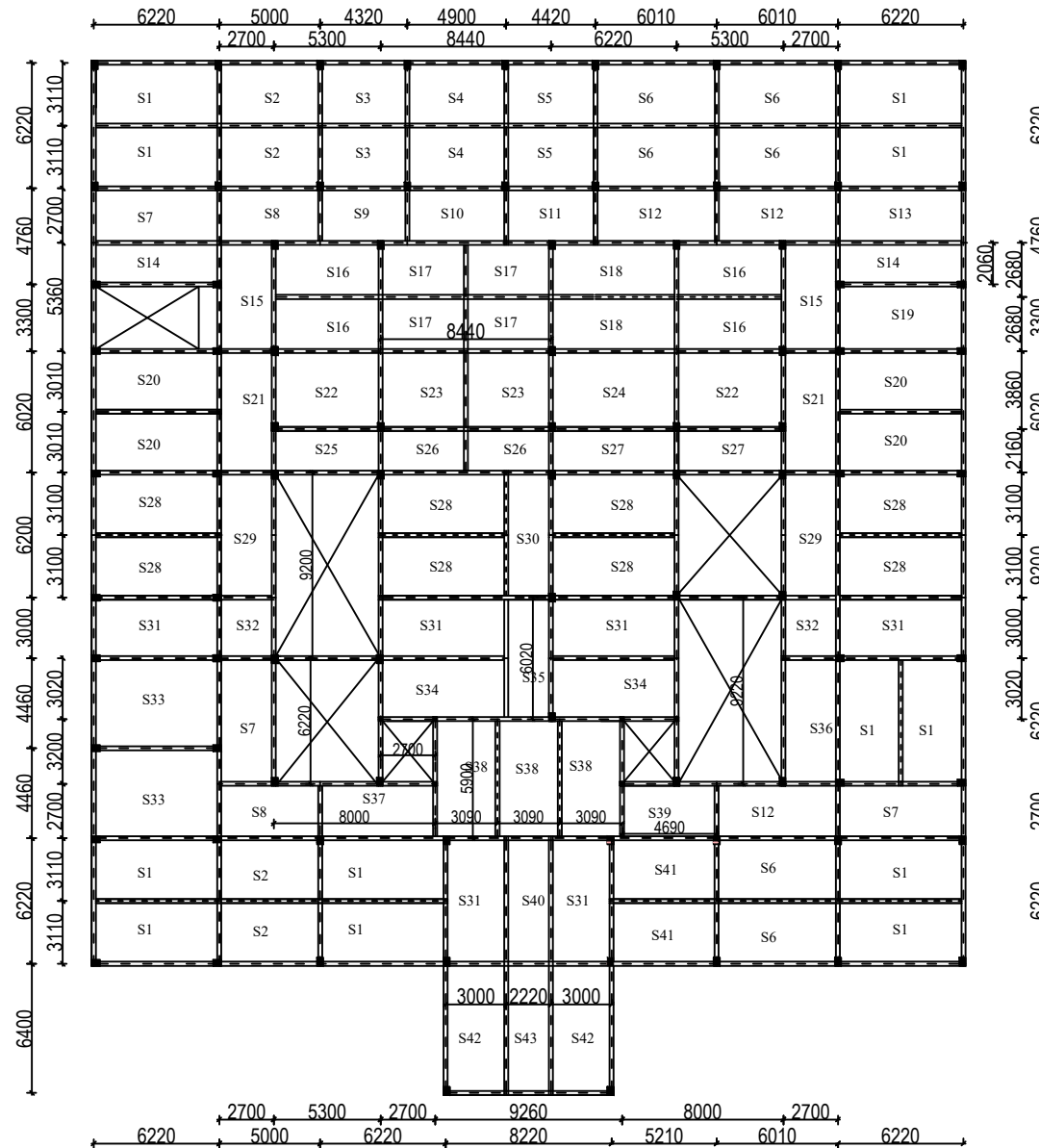
STRUCTURAL CONSULTANT

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Ref.No:	DATE :	DESIGNED:	DRAWN:	PLATE NO: 22
YSCASE,194/2025	07- 03- 2025	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCALE-1:100,All Dimensions are in Millimeter

13-B.STRUCTURAL LAYOUT PLAN OF SUPERSTRUCTURE- (ROOF SLABS - GROUND FLOOR)



PROJECT

PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT
PLAN OF ROOF SLAB

CLIENT

M/S WAPCOS LTD

LOCATION

KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM

AREA : (sq.m)

Basement Floor : 885.50 Sqm
Ground Floor : 1684.21 Sqm
First Floor : 1684.21 Sqm
Second Floor : 1684.21 Sqm
Total : 5938.13Sqm

PROJECT NUMBER

4

GENERAL NOTE

- 1.Do not Scale Dimensions govern in drawings
- 2.All Dimensions are in Millimeter unless noted otherwise.
- 3.All dimensions shall be verified at site before proceeding the work.
- 4.All Levels are in Meters unless noted otherwise.

SIGNATURE

CLIENT

CONSULTANT

STRUCTURAL CONSULTANT



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Ref.No:

YSCASE,194/2025

DATE :

07- 03- 2025

DESIGNED:

Dr M.M KHAN. Ph.D

DRAWN:

JASMINE.TOMY

PLATE NO: 23

SCALE-1:100,All Dimensions are in Millimeter

14-A-STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

Sl.no	Size of the slab (L x B)	Catogory	Main Bar (Shorter span)	Distribution Bar (Longer Span)	Remarks
S1	6220 x 3110	One Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S2	5000 x 3110	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S3	4320 x 3110	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S4	4900 x 3110	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S5	4420 x 3110	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S6	6010 x 3110	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S7	6220 x 2700	One Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S8	5000 x 2700	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S9	4320 x 2700	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S10	4900 x 2700	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S11	4420 x 2700	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S12	6010 x 2700	One Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S13	6220 x 2700	One Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF SLABS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 24


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14-B-STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

Sl.no	Size of the slab (L x B)	Catogory	Main Bar (Shorter span)	Distribution Bar (Longer Span)	Remarks
S14	6220 x 2060	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S15	2700 x 5360	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S16	5300 x 2680	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S17	4220 x 2680	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S18	6220 x 2680	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S19	6220 x 3300	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S20	6220 x 3010	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S21	2700 x 6020	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S22	5300 x 3860	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S23	4420 x 3860	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S24	6220 x 3860	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S25	5300 x 2160	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S26	4220 x 2160	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF SLABS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 25


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14-C-STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

Sl.no	Size of the slab (L x B)	Catogory	Main Bar (Shorter span)	Distribution Bar (Longer Span)	Remarks
S 27	6220 x 2160	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S 28	6220 x 3100	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S 29	2700 x 6200	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S30	2220 x 6200	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S31	6220 x 3000	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S32	2700 x 2700	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S33	6220 x 4460	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S34	6220 x 3020	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S35	2220 x 6020	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S36	2700 x 6220	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S37	5700 x 2700	One Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S38	3090 x 5900	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	
S39	4690 x 2700	Two Way Slab	8 Y@ 130 C/C	8 Y@ 140 C/C	

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINATION
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF SLABS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 26


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14-D-STRUCTURAL DETAILS OF ROOF BEAM - SPACE MANAGEMENT OF REINFORCEMENT

Sl.no	Size of the slab (L x B)	Catogory	Main Bar (Shorter span)	Distribution Bar (Longer Span)	Remarks
S40	2220 x 6220	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S41	5210 x 3110	Two Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S42	3000 x 6400	One Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	
S43	2220 x 6400	One Way Slab	8 Y @ 130 C/C	8 Y @ 140 C/C	

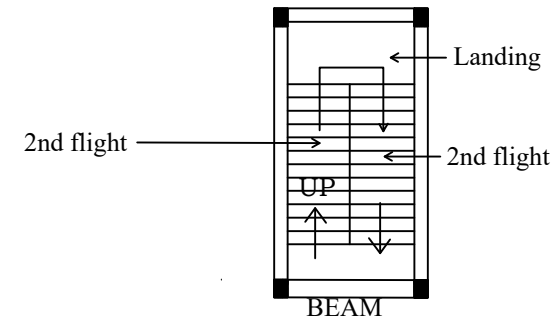
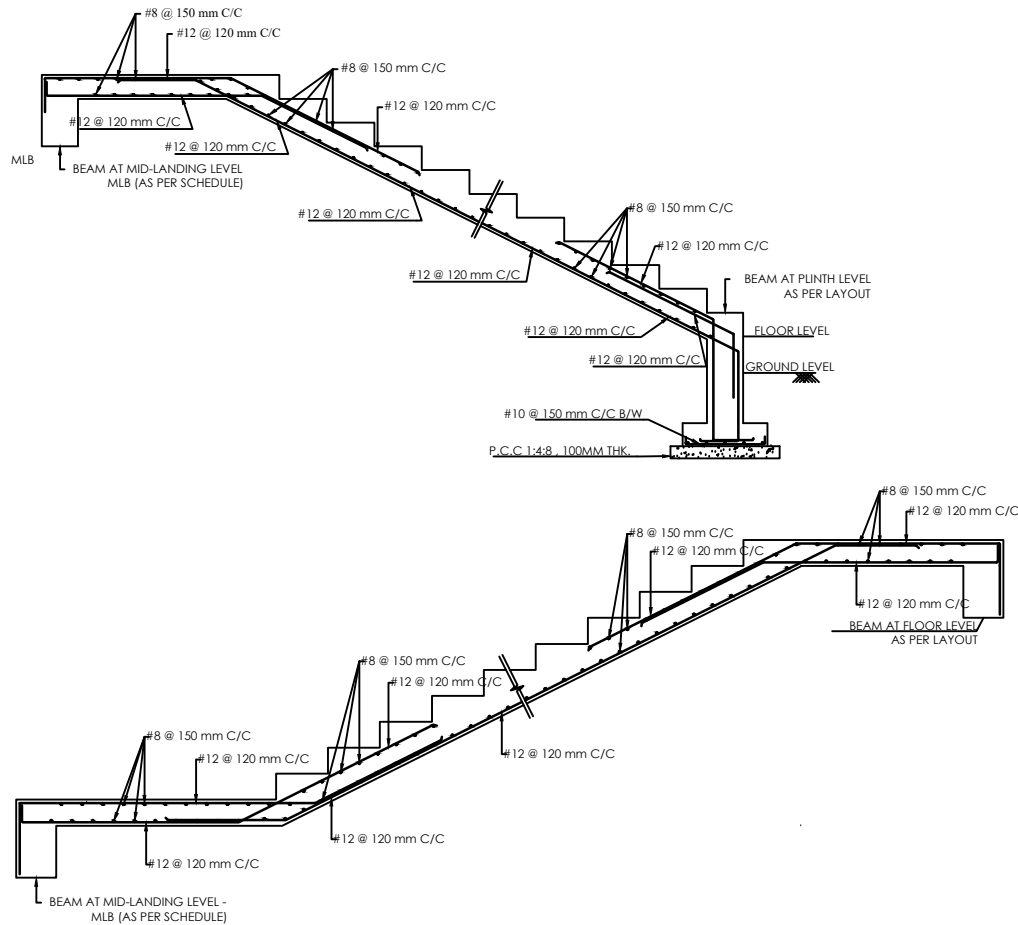
SPECIAL NOTES:

1. FOR REDUCING IN THE THICKNESS OF THE SLAB SUB BEAMS OF MINIMUM SECTION HAVE BEEN PROVIDED IN BETWEEN THE LARGER BAYS.

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING						STRUCTURAL CONSULTANT
PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION	 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpmcs@gmail.com Ph: +91 9447126629 Office: 0474-2792700
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF ROOF SLABS	
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 27	

15 . STRUCTURAL DETAILS OF DOG-LEGGED STAIR

STRUCTURAL DETAILS OF DOG-LEGGED STAIR



DESIGNED DETAILS

1. THICKNESS OF SLANDING SLAB	150 mm
2. THICKNESS OF LANDING SLAB	150 mm
3. RISE OF THREAD	150 mm
4. THREAD OF STEP	300 mm
5. WIDTH OF LANDING	1350 mm
6. GRADE OF CONCRETE	M-25
7. GRADE OF STEEL	Fe 500 D
8. CLEAR COVER	20 mm
9. TRAVEL	CLOCK WISE

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

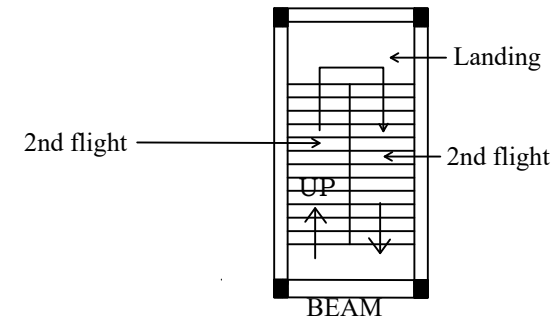
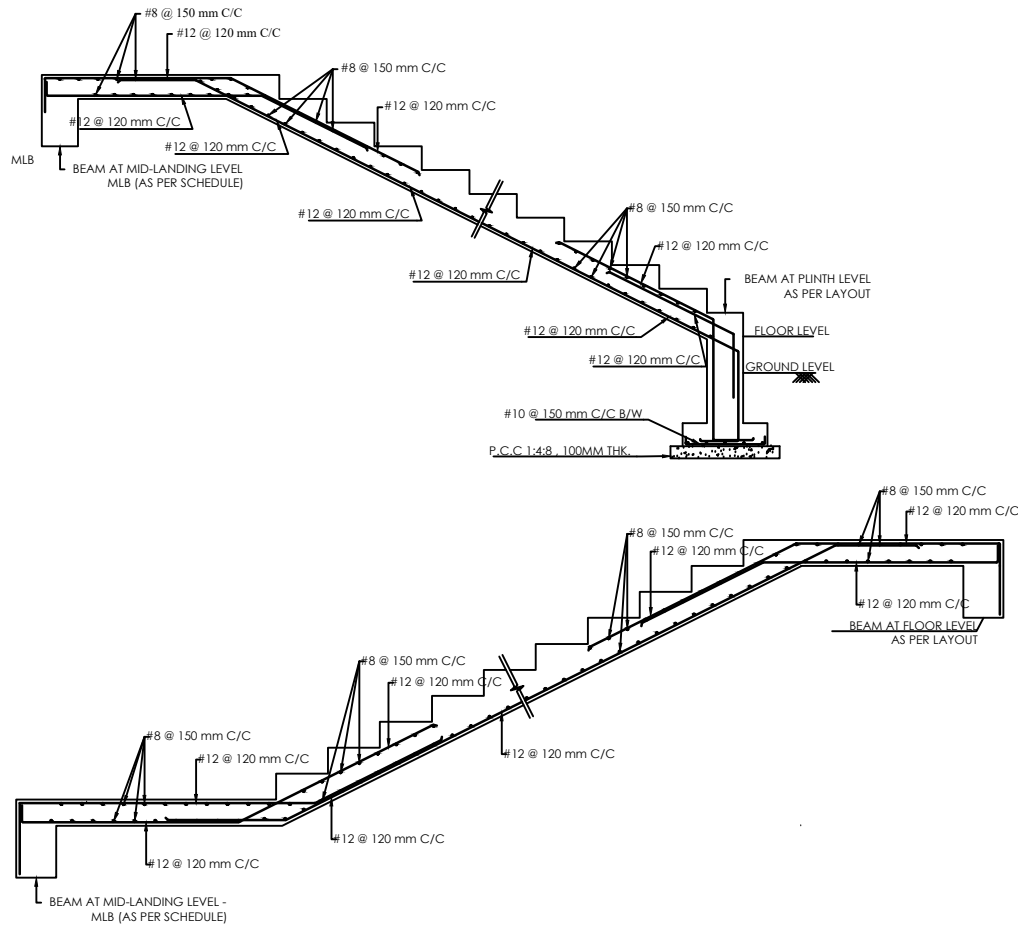
STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF STAIR
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 28


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 Office: 0474-2792700

15 . STRUCTURAL DETAILS OF DOG-LEGGED STAIR

STRUCTURAL DETAILS OF DOG-LEGGED STAIR



DESIGNED DETAILS

1. THICKNESS OF SLANDING SLAB	150 mm
2. THICKNESS OF LANDING SLAB	150 mm
3. RISE OF THREAD	150 mm
4. THREAD OF STEP	300 mm
5. WIDTH OF LANDING	1350 mm
6. GRADE OF CONCRETE	M-25
7. GRADE OF STEEL	Fe 500 D
8. CLEAR COVER	20 mm
9. TRAVEL	CLOCK WISE

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

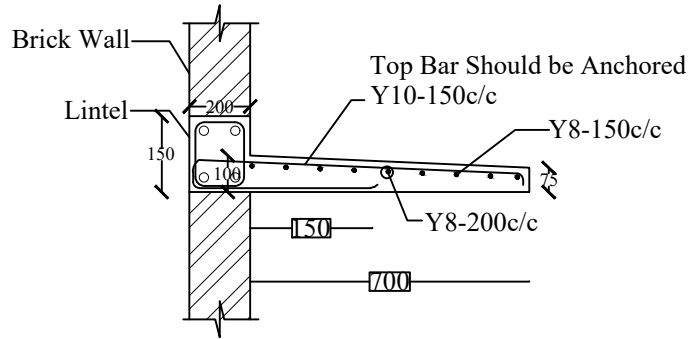
STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCHEDULE OF STAIR
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 28

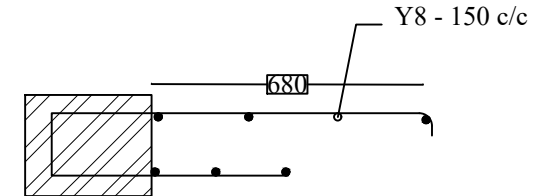

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 Office: 0474-2792700

16. STRUCTURAL DETAILS OF MISCELLANEOUS PARAMETERS

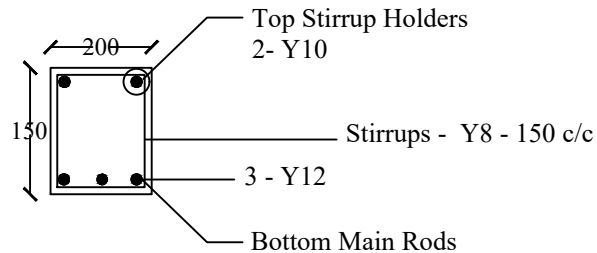
1 STRUCTURAL DETAILS OF SUN SHADE



3 STRUCTURAL DETAILS OF SUN SHADE



2 STRUCTURAL DETAILS OF LINTEL



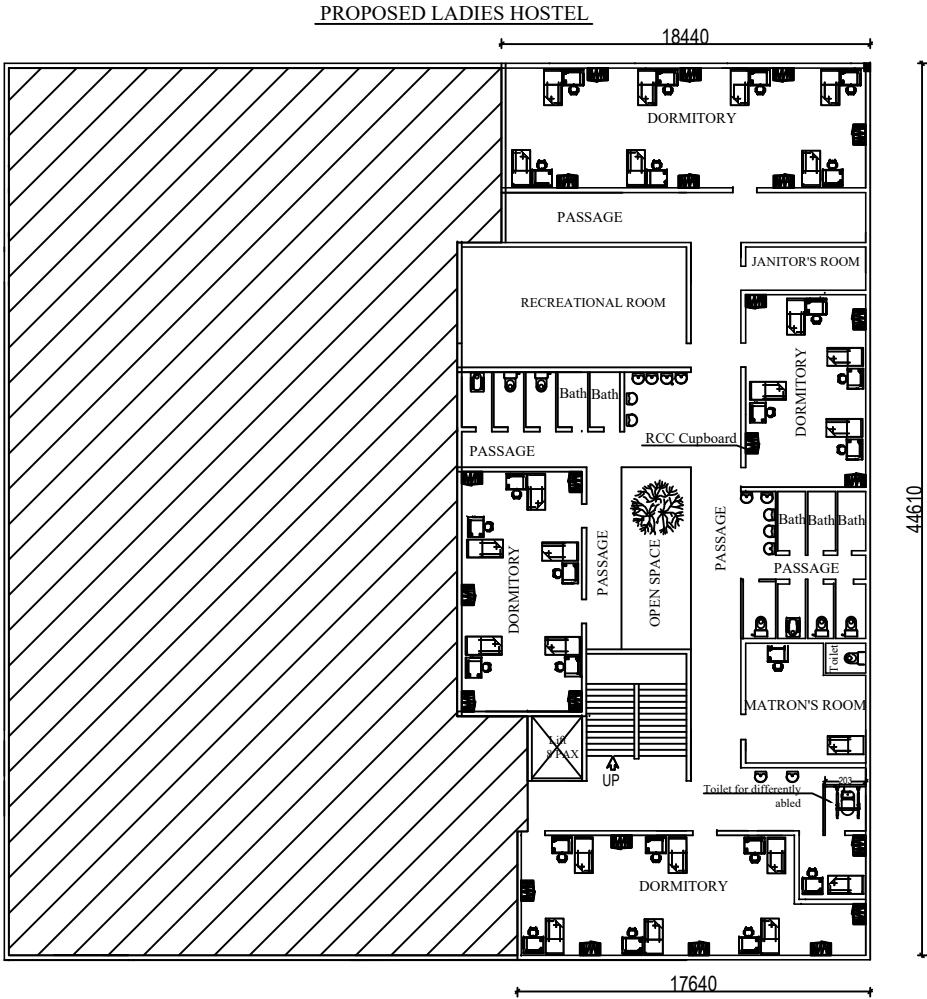
SPECIAL NOTE

GRADE OF CONCRETE - M25
GRADE OF STEEL - Fe 500
CLEAR COVER - 20 MM

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING						STRUCTURAL CONSULTANT
PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION	 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpmcs@gmail.com Ph: +91 9447126629 Office: 0474-2792700
3	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	STRUCTURAL DETAILS OF SUNSHADE & LINTEL	
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 29	

1-A. STRUCTURAL DRAWINGS OF THE PROPOSED BASEMENT HALF +G+2 LADIES HOSTEL
AT KARIYAVATTOM CAMPUS

1.1 ARCHITECTURAL PLAN OF BASEMENT FLOOR

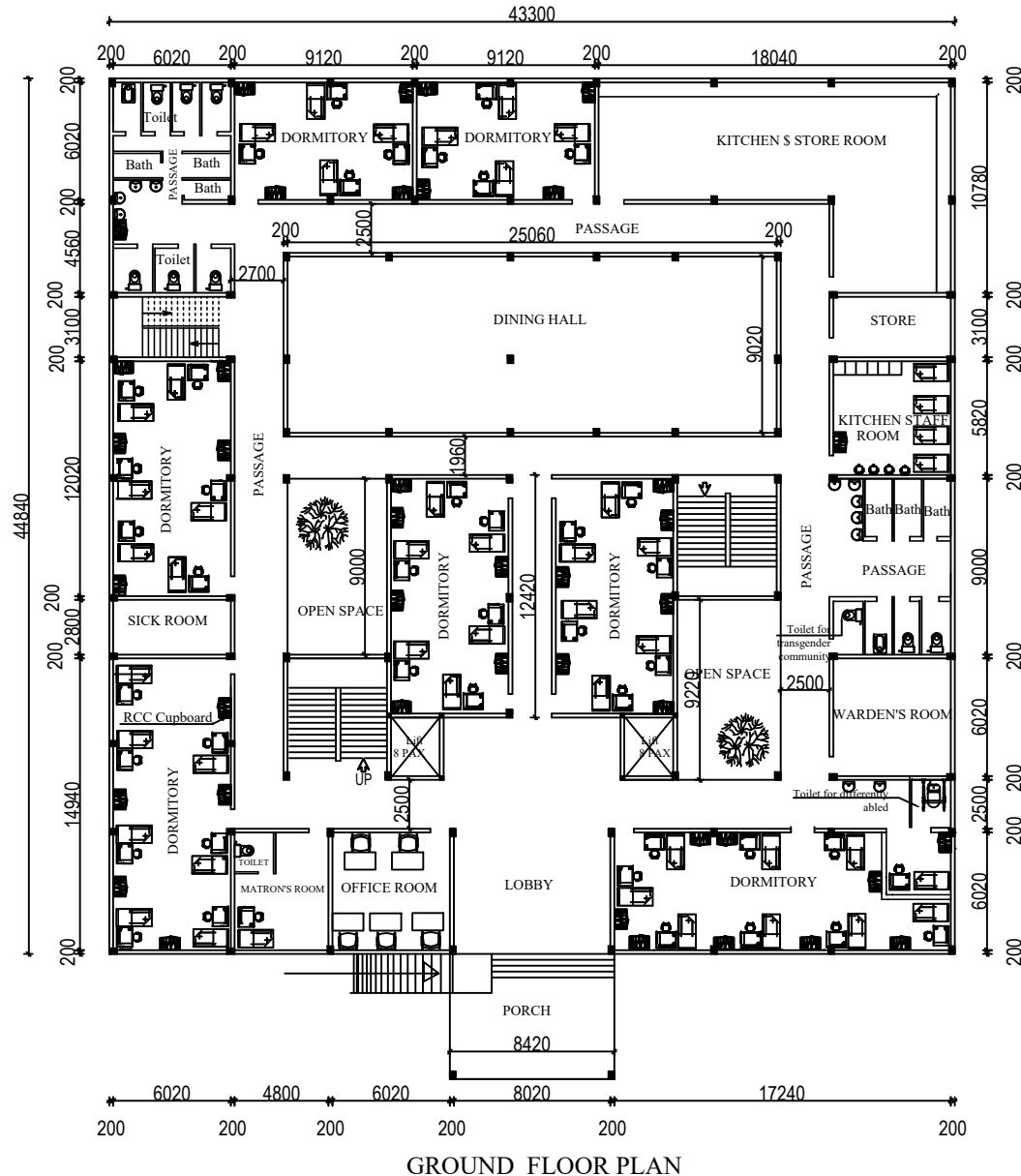


PROJECT	
PROPOSED LADIES HOSTEL. STRUCTURAL DRAWING	
DELINEATION	
ARCHITECTURAL LAYOUT OF BASEMENT FLOOR	
CLIENT	
M/S WAPCOS LTD	
LOCATION	
KARIYAVATTOM CAMPUS UNIVERSITY OF KERALA, THIRUVANANTHAPURAM	
AREA : (sq.m)	
Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	
PROJECT NUMBER	
4	
GENERAL NOTE	
1.Do not Scale Dimensions govern in drawings 2.All Dimensions are in MM unless noted otherwise. 3.All dimensions shall be verified at site before proceeding the work. 4.All Levels are in Meters unless noted otherwise.	
SIGNATURE	
CLIENT	CONSULTANT
STRUCTURAL CONSULTANT	
 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpms@gmail.com Ph: +91 9447126629 Office: 0474-2792700	

Ref.No:	DATE :	DESIGNED:	DRAWN:	PLATE NO: 01
YSCASE,194/2025	07- 03- 2025	Dr M.M KHAN. Ph.D	JASMINE.TOMY	SCALE-1:100,All Dimensions are in MM

1-B STRUCTURAL DRAWINGS OF THE PROPOSED BASEMENT HALF +G+2 LADIES HOSTEL AT KARIYAVATTOM CAMPUS

1.2 ARCHITECTURAL PLAN OF GROUND FLOOR



PROJECT

PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING

DELINEATION

ARCHITECTURAL LAYOUT
OF BASEMENT FLOOR

CLIENT

M/S WAPCOS LTD

LOCATION

KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM

AREA : (sq.m)

Basement Floor : 885.50 Sqm
Ground Floor : 1684.21 Sqm
First Floor : 1684.21 Sqm
Second Floor : 1684.21 Sqm
Total : 5938.13Sqm

PROJECT NUMBER

4

GENERAL NOTE

- 1.Do not Scale Dimensions govern in drawings
- 2.All Dimensions are in MM unless noted otherwise.
- 3.All dimensions shall be verified at site before proceeding the work.
- 4.All Levels are in Meters unless noted otherwise.

SIGNATURE

CLIENT

CONSULTANT

STRUCTURAL CONSULTANT



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Office: 0474-2792700

Ref.No:

YSCASE,194/2025

DATE :

07- 03- 2025

DESIGNED:

Dr M.M KHAN. Ph.D

DRAWN:

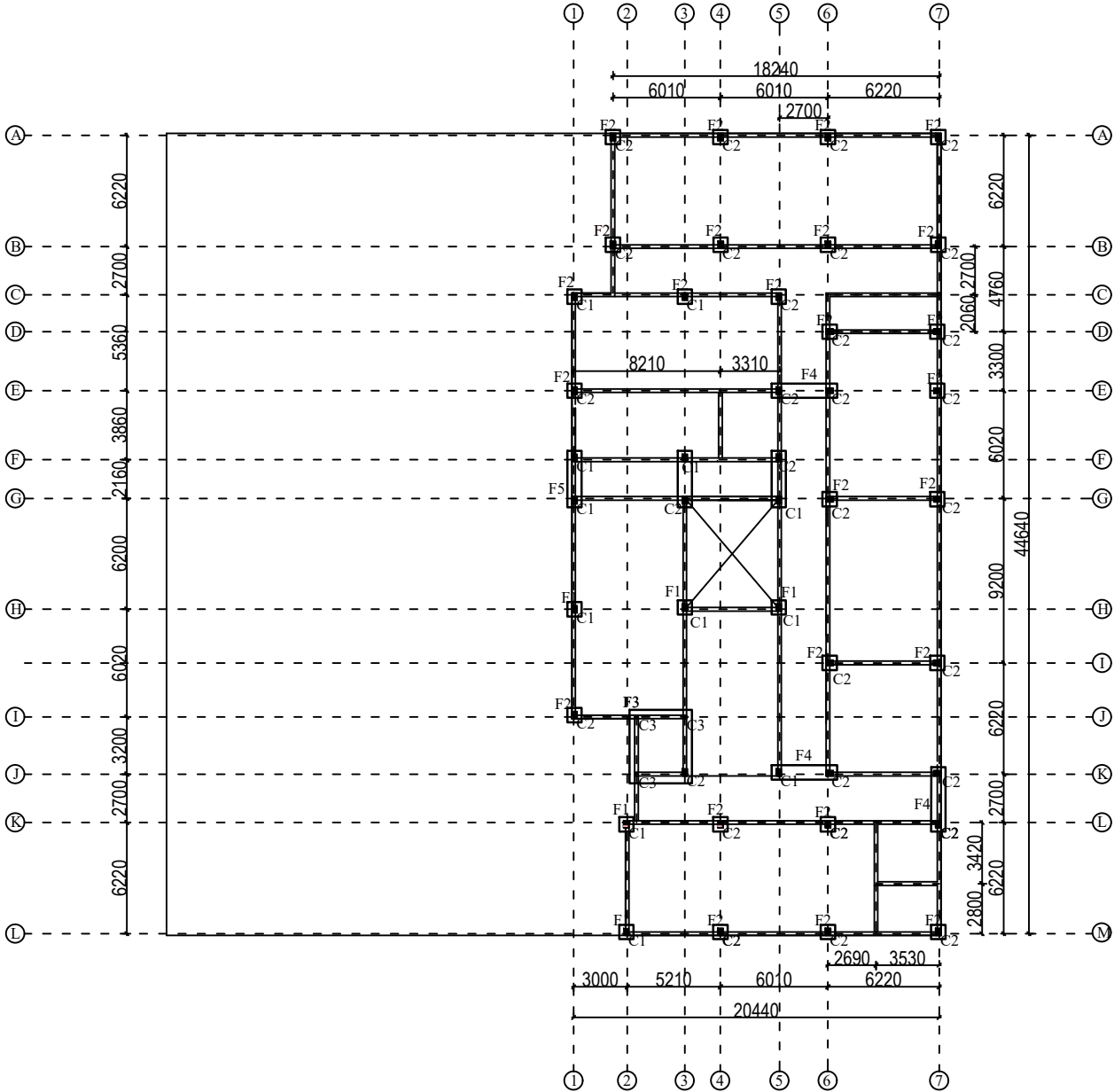
JASMINE.TOMY

PLATE NO: 02

SCALE-1:100,All Dimensions are in MM

2-A. STRUCTURAL LAYOUT PLAN OF SUB-STRUCTURE

2.1 FOUNDATION DETAILS



BASEMENT FLOOR PLAN

PROJECT

PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT PLAN
OF SUB-STRUCTURE
FOUNDATION

CLIENT

M/S WAPCOS LTD

LOCATION

KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM

AREA : (sq.m)

Basement Floor : 885.50 Sqm
Ground Floor : 1684.21 Sqm
First Floor : 1684.21 Sqm
Second Floor : 1684.21 Sqm
Total : 5938.13Sqm

PROJECT NUMBER

4

GENERAL NOTE

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- 2.All Dimensions are in Millimeter unless noted otherwise.
- 3.All dimensions shall be verified at site before proceeding the work.
- 4.All Levels are in Meters unless noted otherwise.

SIGNATURE

CLIENT

CONSULTANT

STRUCTURAL CONSULTANT



Y-Shakh
Project Management &
Consultancy Services

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Ref.No:

DATE :

DESIGNED:

DRAWN:

PLATE NO: 03

YSCASE,194/2025

07- 03- 2025

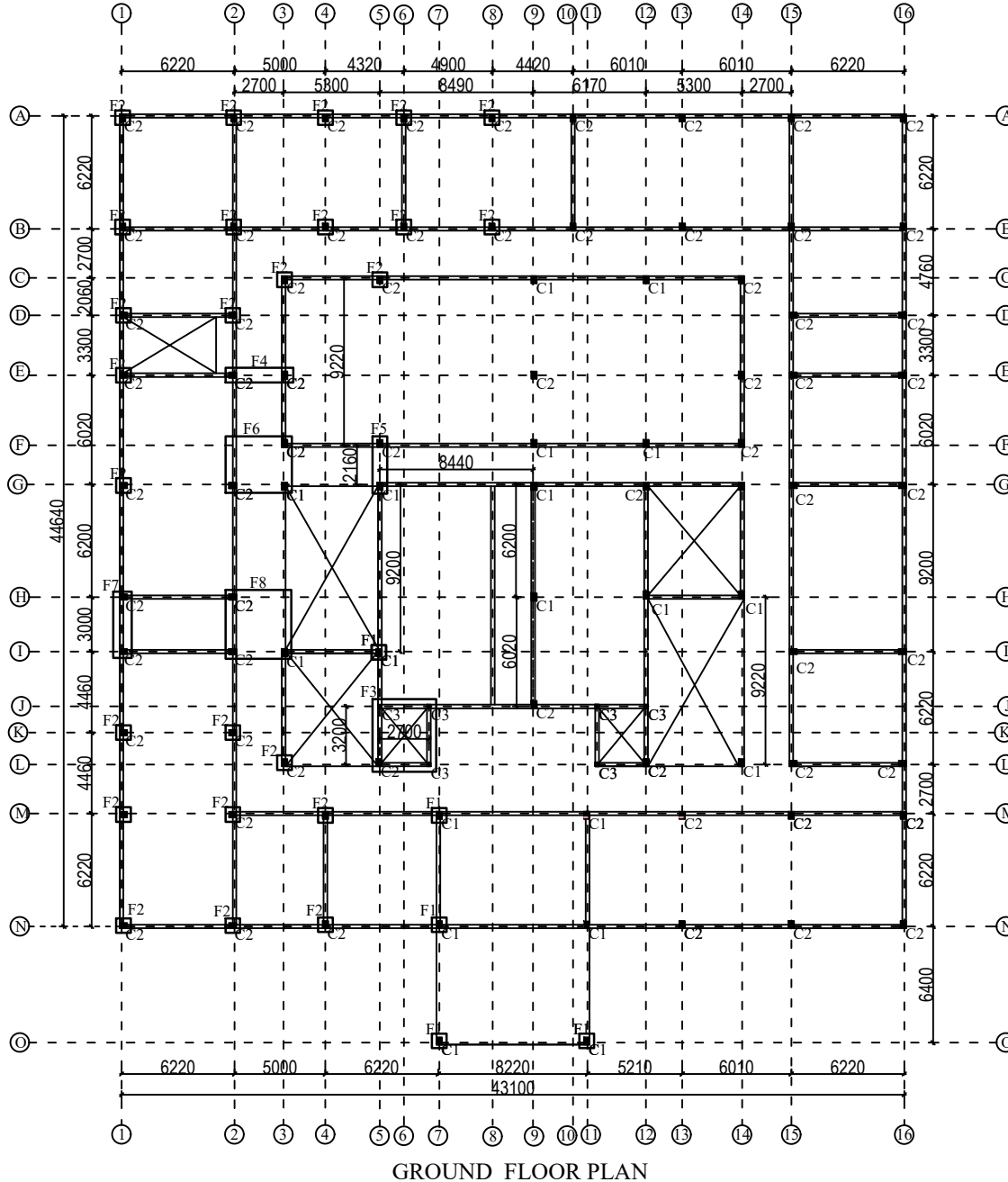
Dr M.M KHAN. Ph.D

JASMINE.TOMY

SCALE-1:100,All Dimensions are in Millimeter

2-B. STRUCTURAL LAYOUT PLAN OF SUB-STRUCTURE

2.2 FOUNDATION DETAILS



PROJECT

PROPOSED LADIES HOSTEL. STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT PLAN
OF SUB-STRUCTURE
FOUNDATION

CLIENT

M/S WAPCOS LTD

LOCATION

**KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM**

AREA : (sq.m)

Basement Floor	: 885.50 Sqm
Ground Floor	: 1684.21 Sqm
First Floor	: 1684.21 Sqm
Second Floor	: 1684.21 Sqm
Total	: 5938.13Sqm

PROJECT NUMBER

4

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SIGNATURE

CLIENT	CONSULTANT
---------------	-------------------

STRUCTURAL CONSULTANT



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Office: 0474-2792700

Ref.No:

DATE :

DESIGNED:

DRAWN:

PLATE NO: 04

YSCASE,194/2025

07- 03- 2025

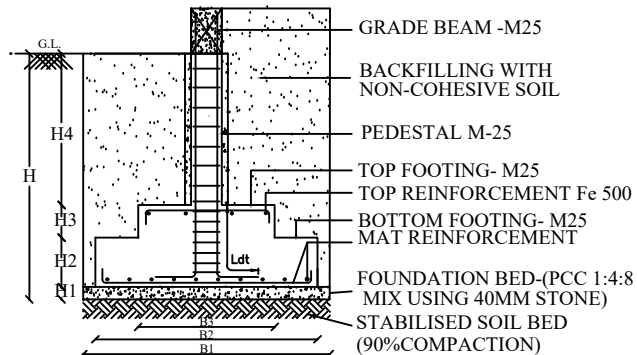
Dr M.M KHAN. Ph.D

JASMINE.TOMY

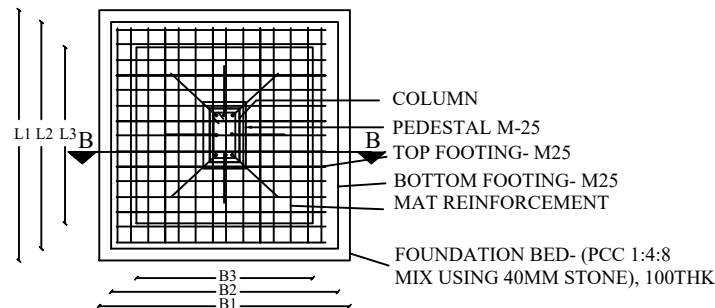
SCALE-1:100, All Dimensions are in Millimeter

3. STRUCTURAL DETAILS OF FOUNDATION

ISOLATED STEPPED FOOTING -TYPICAL DESIGN



MAT REINFORCEMENT DETAILS



SECTIONAL PLAN

SPECIAL NOTES

1. THE MINIMUM DEPTH OF FOUNDATION :2.0M BGL
2. S.B.C OF THE SOIL ASSUMED : 120 kN/M²
3. GRADE OF CONCRETE : M25
4. GRADE OF STEEL : Fe500
5. CLEAR COVER : 50mm

FOUNDATION DETAILS OF PROPOSED PROJECT

SL. NO	GROUP	FOUNDATION TRENCH			PCC BED			BOTTOM FOOTING			TOP FOOTING			REINFORCEMENT DETAILS			
		L1	B1	H	L1	B1	H1	L2	B2	H2	L3	B3	H3	MAT RODS	TOP RODS	DEV LENGTH Ld	LAP LENGTH Ls
1.	F1	3000	3000	2000	3000	3000	100	2700	2700	300	2500	2500	350	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
2.	F2	2500	2500	2000	2500	2500	100	2200	2200	250	1800	1800	350	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
3.	F3	5400	4900	2000	5400	4900	100	5200	4700	300	5000	4500	300	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
4.	F4	5700	3000	2000	5700	3000	100	5500	2800	300	5100	2600	350	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
5.	F5	5200	3000	2000	5200	3000	100	5000	2800	300	4700	2500	350	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
6.	F6	4900	5500	2000	4900	5500	100	4700	5300	300	4200	5000	350	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
7.	F7	5500	2500	2000	5500	2500	100	5300	2200	300	5000	1800	350	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10
8.	F8	5750	5450	2000	5750	5450	100	5600	5300	300	5200	5000	300	Y12 @ 150 C/C BOTH WAYS	Y10 @ 250 C/C BOTH WAYS	600 mm for Y12 & 500 mm for Y10	600 mm for Y12 & 500 mm for Y10

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

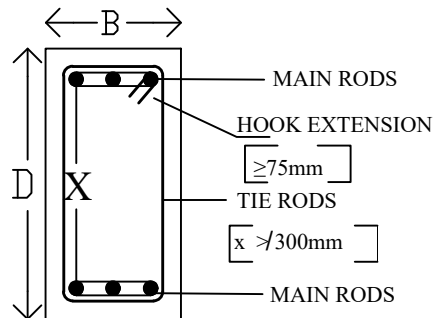
STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	STRUCTURAL DETAILS OF FOUNDATION
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 05


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 Office: 0474-2792700

4. STRUCTURAL DETAILS OF COLUMN

4.1 C.S DETAILS OF COLUMNS



NOTE	
GRADE OF CONCRETE :	M25
GRADE OF STEEL :	Fe500
CLEAR COVER :	40 mm

4.2 INDEX

- Y = Diameter of reinforcement rods HYSD
 Ld = Development Length of rods 50d
 Ls = Splices/Lap length at joints of reinforcement rods 50 d for tension & 40 d for compression zone
 L0 = Confining region for ductility for seismic resistance
 H = Height of Column Between support faces
 H/4 = Region where joints of rods are to be avoided
 H/2 = Region where joints allowable but shall be restricted to maximum of 50 % of joints at a particular section
 S = Spacing of stirrups in region free from L0 & Ls
 S0 = Spacing of stirrups at L0 region
 Ss = Spacing of stirrups at Ls region
 X = Space between 2 adjacent main rods in column where shall not exceed 300 mm

4.3 STRUCTURAL DETAILS OF COLUMNS OF THE PROPOSED PROJECT

GROUP	C.S DIMENSION B X D	REINFORCEMENT		CRITICAL ZONES			SPACING OF TIES AT CRITICAL ZONE		CROSS SECTION DETAILS	TIE ARRANGEMENT
		MAIN	TIES	Dev: Length Ld (mm)	Lap length Ls (mm)	Confined Length L0 (mm)	Ss(mm)	SO(mm)		
C1	300 x 600	4 Y 20 + 8 Y 16	Y 8 @ 150 C/C	1000 mm for Y 20 & 800 mm for Y16	800 mm for Y 20 & 640 mm for Y16	600 mm	Y8@ 100mm/ c/c	Y8@ 75mm/ c/c		4 Legged
C2	300 x 500	4 Y 20 + 4 Y 16	Y 8 @ 150 C/C	1000 mm for Y 20 & 800 mm for Y16	800 mm for Y 20 & 640 mm for Y16	500 mm	Y8@ 100mm/ c/c	Y8@ 75mm/ c/c		4 Legged
C3	300 x 300	4 Y 16 + 4 Y 12	Y 8 @ 150 C/C	800 mm for Y16 & 600 mm for Y12	640 mm for Y16 & 500 mm for Y12	450 mm	Y8@ 100mm/ c/c	Y8@ 75mm/ c/c		4 Legged

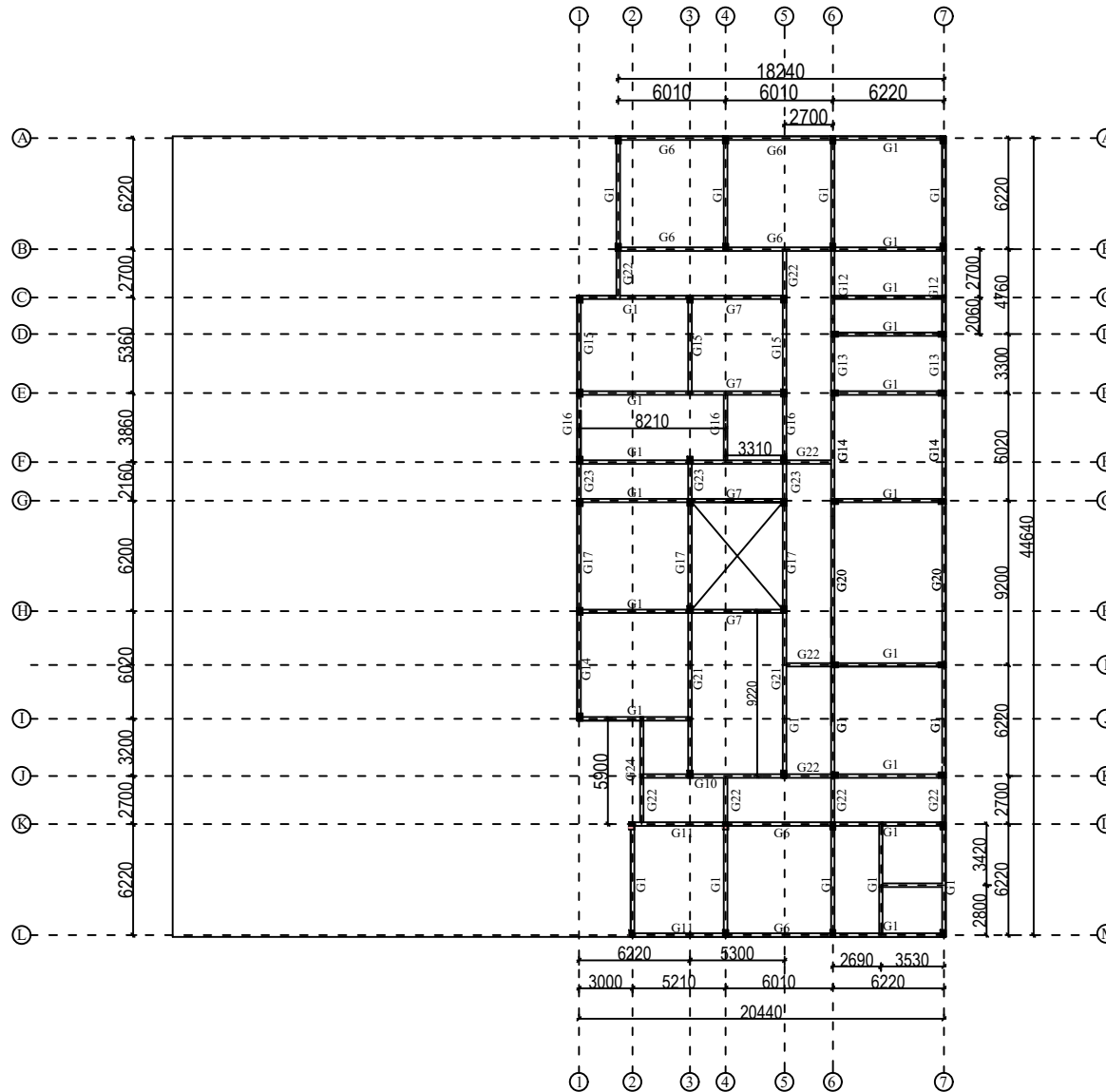
PROJECT : PPROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION	 Y-Shakh Project Management & Consultancy Services Y- Shakh, Nalanda Nagar-97 Thirumullavaram P.O. Kollam - 12 e-mail: yshakhpmcs@gmail.com Ph: +91 9447126629 Office: 0474-2792700
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.135sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	STRUCTURAL DETAILS OF COLUMNS	
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 06	

5-A. STRUCTURAL LAYOUT PLAN OF GRADE BEAMS

5-1 DETAILS OF GRADE BEAM



PROJECT

PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT
PLAN OF GRADE BEAMS

CLIENT

M/S WAPCOS LTD

LOCATION

KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM

AREA : (sq.m)

Basement Floor : 885.50 Sqm
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First Floor : 1684.21 Sqm
Second Floor : 1684.21 Sqm
Total : 5938.13Sq

PROJECT NUMBER

4

GENERAL NOTE

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SIGNATURE

CLIENT

CONSULTANT

STRUCTURAL CONSULTANT



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Consultancy Services

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Ph: +91 9447126629
Office: 0474-2792700

Ref.No:

YSCASE,194/2025

DATE :

07- 03- 2025

DESIGNED:

Dr M.M KHAN. Ph.D

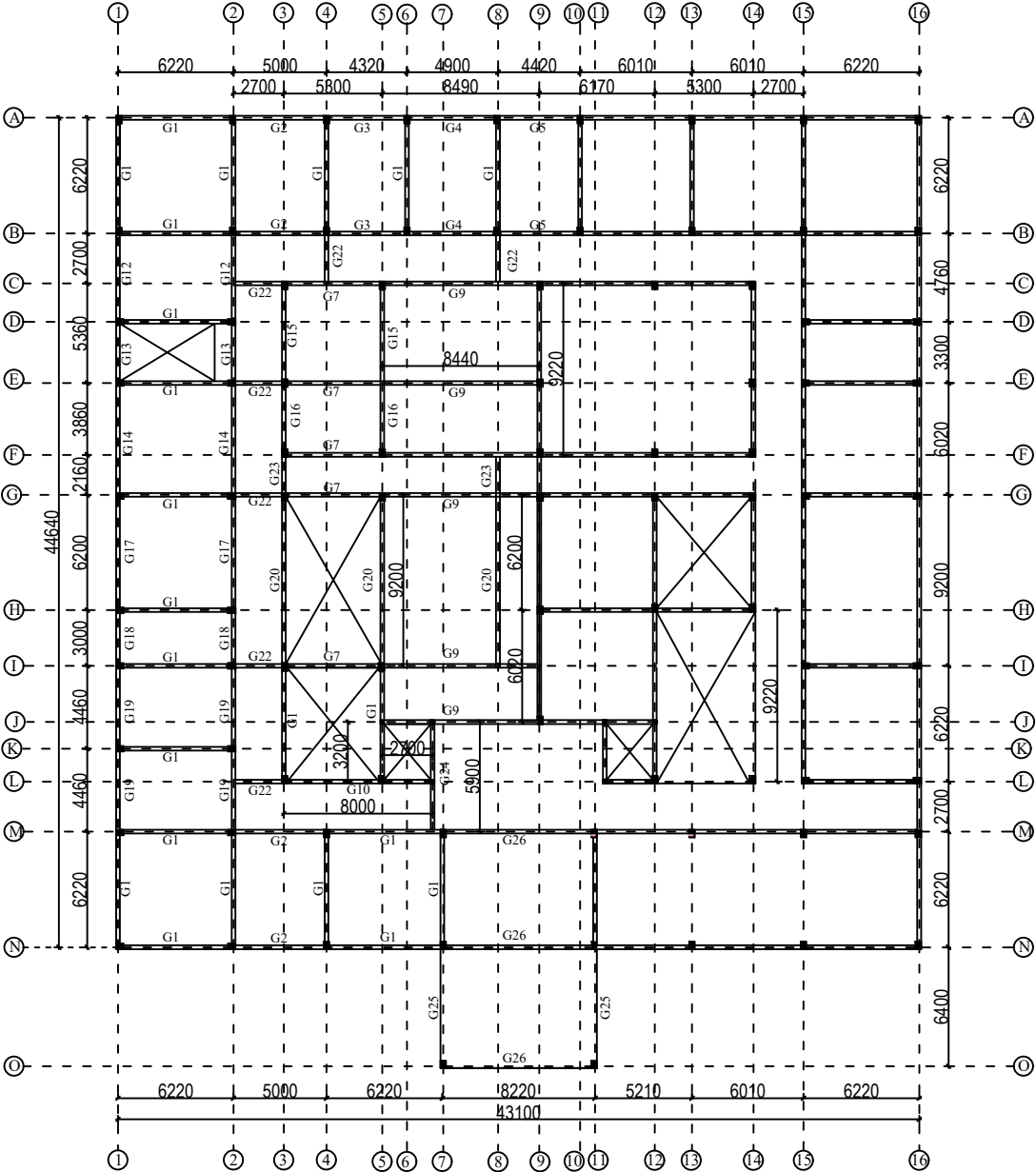
DRAWN:

JASMINE.TOMY

PLATE NO: 07

SCALE-1:100,All Dimensions are in Millimeter

5-B. STRUCTURAL LAYOUT PLAN OF GRADE BEAMS



GROUND FLOOR PLAN

5-1 DETAILS OF GRADE BEAM

GROUP	EFF:SPAN (IN MM)
G1	6220
G2	5000
G3	4320
G4	4900
G5	4420
G6	6010
G7	5300
G8	4020
G9	8440
G10	8000
G11	5210
G12	4760
G13	3300
G14	6020
G15	5360
G16	3860
G17	6200
G18	3000
G19	4460
G20	9200
G21	9220
G22	2700
G23	2160
G24	5900
G25	6400
G26	8220

PROJECT

PROPOSED LADIES HOSTEL.
STRUCTURAL DRAWING

DELINEATION

STRUCTURAL LAYOUT
PLAN OF GRADE BEAMS

CLIENT

M/S WAPCOS LTD

LOCATION

KARIYAVATTOM CAMPUS
UNIVERSITY OF KERALA,
THIRUVANANTHAPURAM

AREA : (sq.m)

Basement Floor : 885.50 Sqm
Ground Floor : 1684.21 Sqm
First Floor : 1684.21 Sqm
Second Floor : 1684.21 Sqm
Total : 5938.13Sqm

PROJECT NUMBER

4

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SIGNATURE

CLIENT

CONSULTANT

STRUCTURAL CONSULTANT



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Project Management &
Consultancy Services

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Office: 0474-2792700

Ref.No:

YSCASE,194/2025

DATE :

07- 03- 2025

DESIGNED:

Dr M.M KHAN. Ph.D

DRAWN:

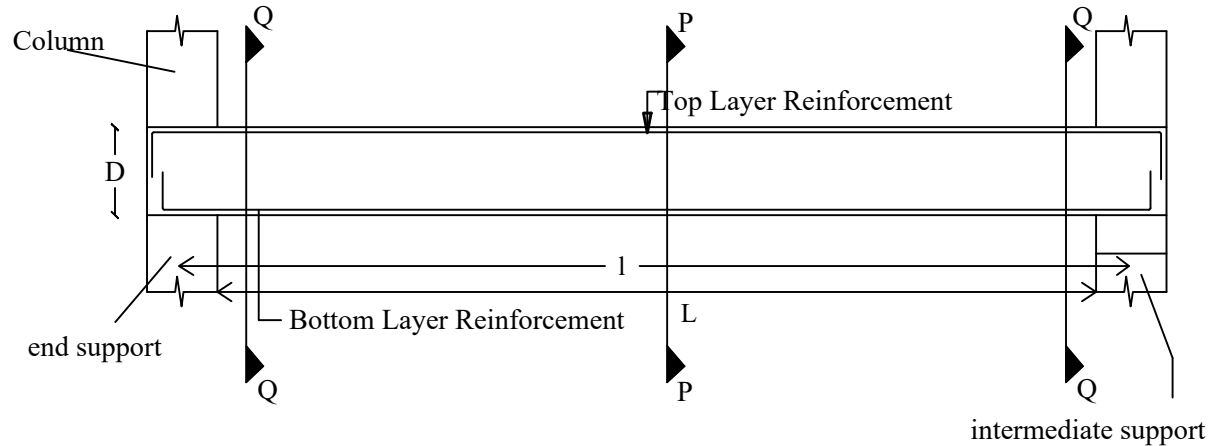
JASMINE.TOMY

PLATE NO: 08

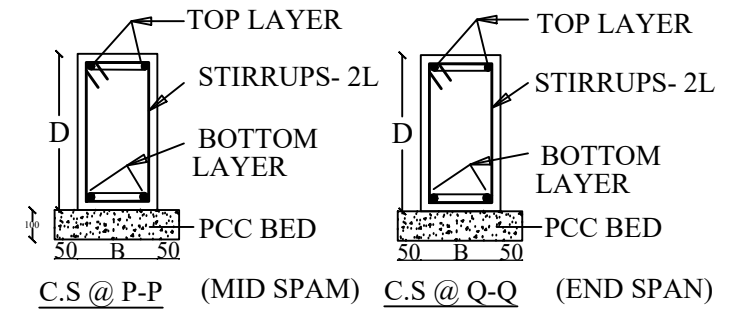
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6. STRUCTURAL DETAILS OF GRADE BEAMS - TYPICAL DESIGN CONCEPT

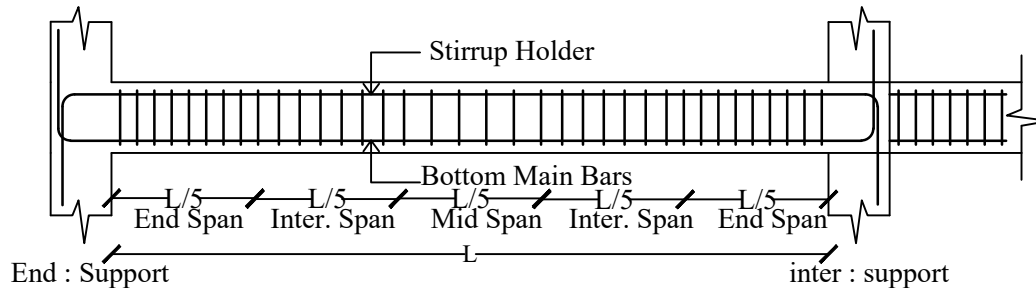
6.1 ARRANGEMENT OF MAIN BARS IN RAFT SLAB BEAMS



6.3 CROSS-SECTIONAL DETAILS



6.2 ARRANGEMENT OF STIRRUPS IN RAFT SLAB BEAMS



6.4 INDEX

- L = CLEAR SPAN
- l = EFFECTIVE SPAN
- D = DEPTH OF BEAM
- B = BREADTH OF BEAM
- GRADE OF CONCRETE : M25
- GRADE OF STEEL : Fe500
- CLEAR COVER : 25mm

PROJECT : PROPOSED LADIES HOSTEL AT KARIYAVATTOM CAMPUS, UNIVERSITY OF KERALA, THIRUVANANTHAPURAM. STRUCTURAL DRAWING

STRUCTURAL CONSULTANT

PROJECT NUMBER	CLIENT	AREA : (sq.m)	DESIGNED:	DRAWN:	DELINEATION
4	M/S WAPCOS LTD	Basement Floor : 885.50 Sqm Ground Floor : 1684.21 Sqm First Floor : 1684.21 Sqm Second Floor : 1684.21 Sqm Total : 5938.13Sqm	Dr M.M KHAN. Ph.D	JASMINE.TOMY	STRUCTURAL DETAILS OF GRADE BEAMS
Ref.No: YSCASE,194/2025	DATE : 07- 03- 2025	DRAWING ARE NOT IN SCALE	ALL DIMENSIONS ARE IN MM		PLATE NO: 09


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