

## **ANNEX-04**

**BRITISH COUNCIL  
SPOKE-D.I KHAN**

**ID WORKS DRAWINGS PACKAGE  
(ISSED FOR TENDER)**

## SHEET INDEX

S.NO.	DRAWING TITLE	SHEET NO.
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### ELEVATIONS

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12	ELEVATIONS & SECTIONS	ELEVATION -02	ID-102
13	ELEVATIONS & SECTIONS	ELEVATION -03	ID-103

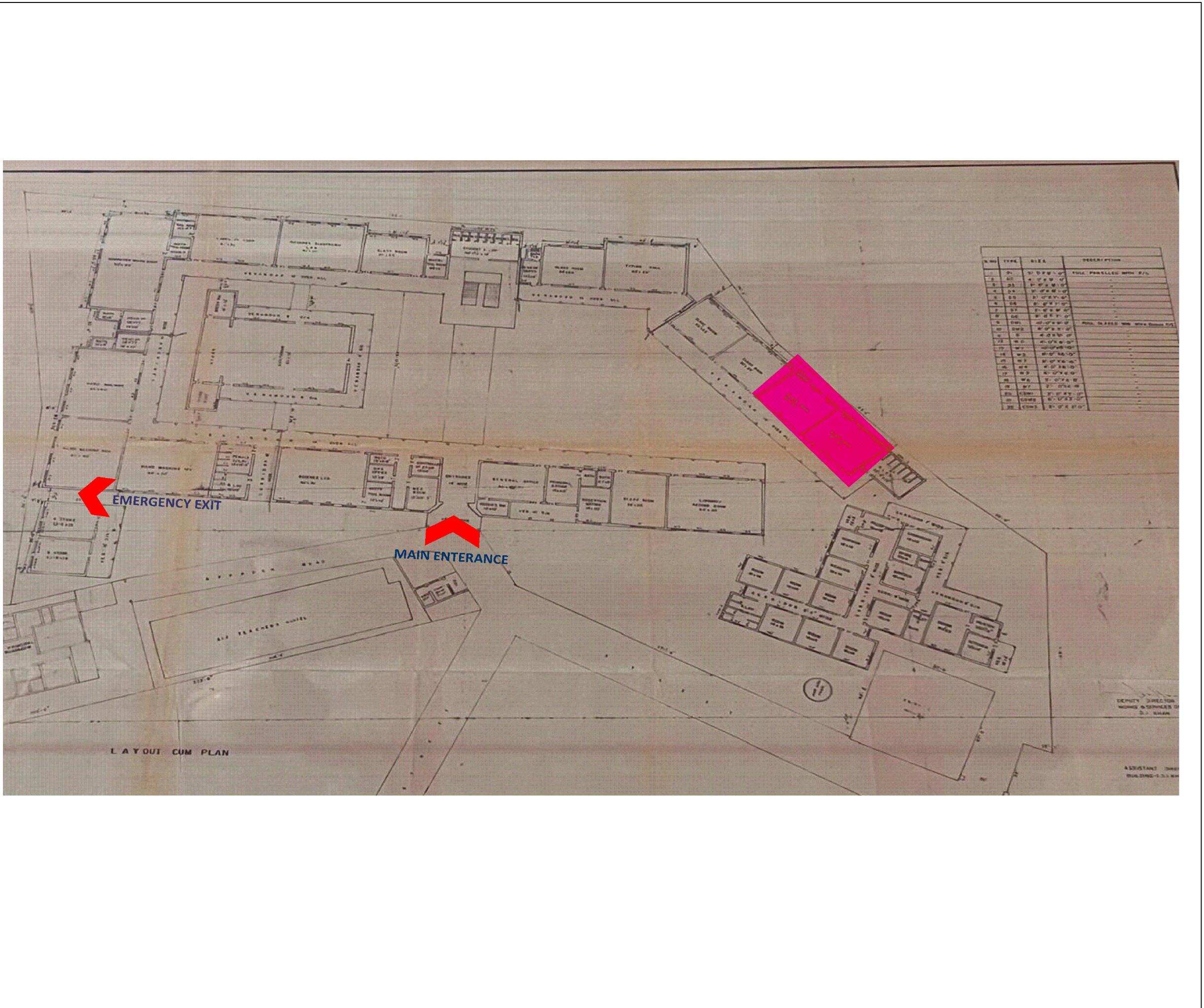
Rev Date Description Drn By Ckd By

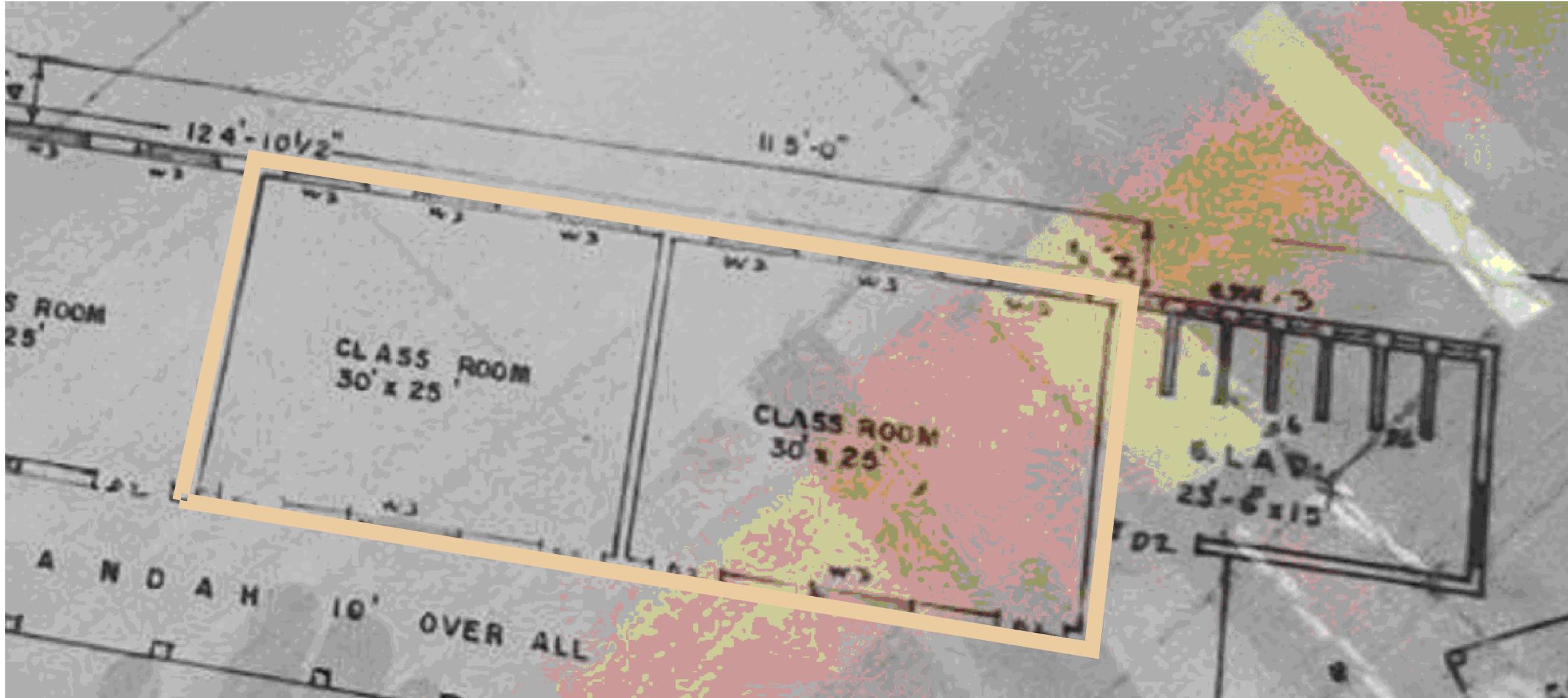
DISCIPLINE STATUS  
 INTERIOR DESIGN Tender Drawing

Drawing Title

### LIST OF DRAWINGS

Drawn	SURR.	Date	Dec-25
Checked	SURR.	Scale	
Approved		Job No.	
Sheet size		Drawing No.	Rev. No.
A3			





## PROJECT



## ED CONSULTANT

ARCHITECTS



Office Suite 102, 10-C Shehbaz Commercial Lane 4,  
Off 26th Street Phase 6  
Landline: +922135172438 +922135172439  
Email: surroundarchitects@gmail.com  
Logon to: [www.surrounddesignstudio.com.pk](http://www.surrounddesignstudio.com.pk)

## LECTRICAL CONSULTANT



**A.A. TECHNO ENGINEERS**  
MEP & I.T. CONSULTANTS  
2C, Khayaban-e-saadi, # 1, D.H.A. Phase-VII, Karachi  
3588-5740 | [info@aatechnoengineers.com](mailto:info@aatechnoengineers.com)

VAC, MECHANICAL & PLUMBING CONSULTANTS



HOUSE NO. 71/4, STREET 19, MUSLIMABAD, KARACHI.  
■ 00-021-3380396  
✉ info1.mbaassociates@gmail.com  
✉ info@mbaassociates.com.pk

## OTES

NO DIMENSIONS ARE TO BE SCALED.

ALL DIMENSIONS ARE TO BE CHECKED AND CO-RELATED WITH OTHER DRAWINGS PRIOR TO WORK COMMENCING ON SITE.

DRAWINGS TO BE READ IN CONJUNCTION WITH WRITTEN SPECIFICATION IN THE EVENT OF ANY DISPARITY BETWEEN DRAWINGS AND WRITTEN SPECIFICATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE ENGINEER.

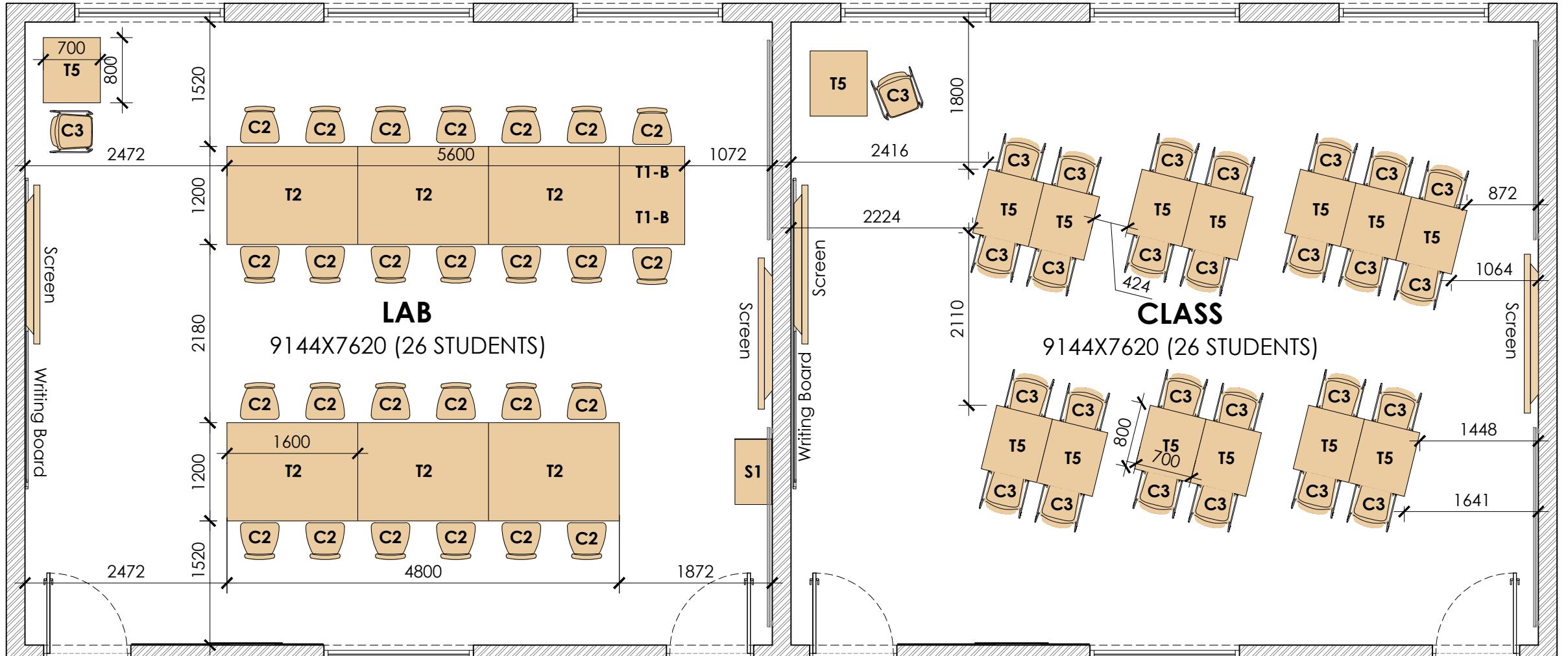
CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM SPECIALIST SUB CONTRACTOR FOR ALL THE SPECIAL ITEMS.

## KEY PLAN

Rev	Date	Description	Drn By	Ckd By
DISCIPLINE			STATUS	
INTERIOR			CONSTRUCTION	
Drawing Title				
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checked	SURR.	Scale	1:200	
proved		Job No.		
sheet size	Drawing No.			Rev. No.
<b>A3</b>	<b>ID-01</b>			



1. NO DIMENSIONS ARE TO BE SCALED.
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4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM SPECIALIST SUB CONTRACTOR FOR ALL THE SPECIAL ITEMS.



Rev	Date	Description	Drn By	Ckd By
DISCIPLINE				STATUS
INTERIOR				CONSTRUCTION

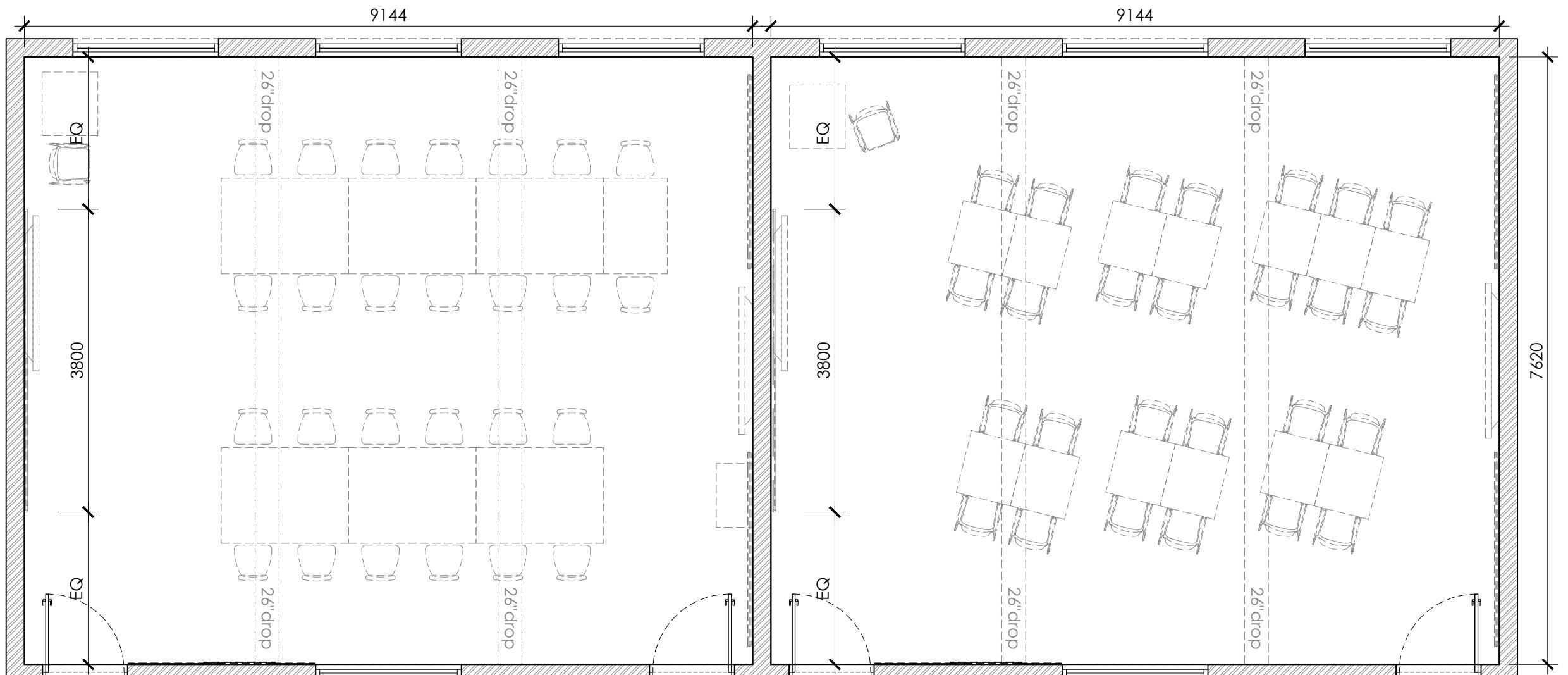
Drawing Title

## FURNITURE LAYOUT

Drawn	SURR.	Date	Dec. 2025
Checked	SURR.	Scale	1:60
Approved		Job No.	
Sheet size			Drawing No. Rev. No.
ID-02			A



1. NO DIMENSIONS ARE TO BE SCALED.
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Rev	Date	Description	Drn By	Ckd By

DISCIPLINE	STATUS
INTERIOR	CONSTRUCTION

Drawing Title

## WALL DIMENSION LAYOUT

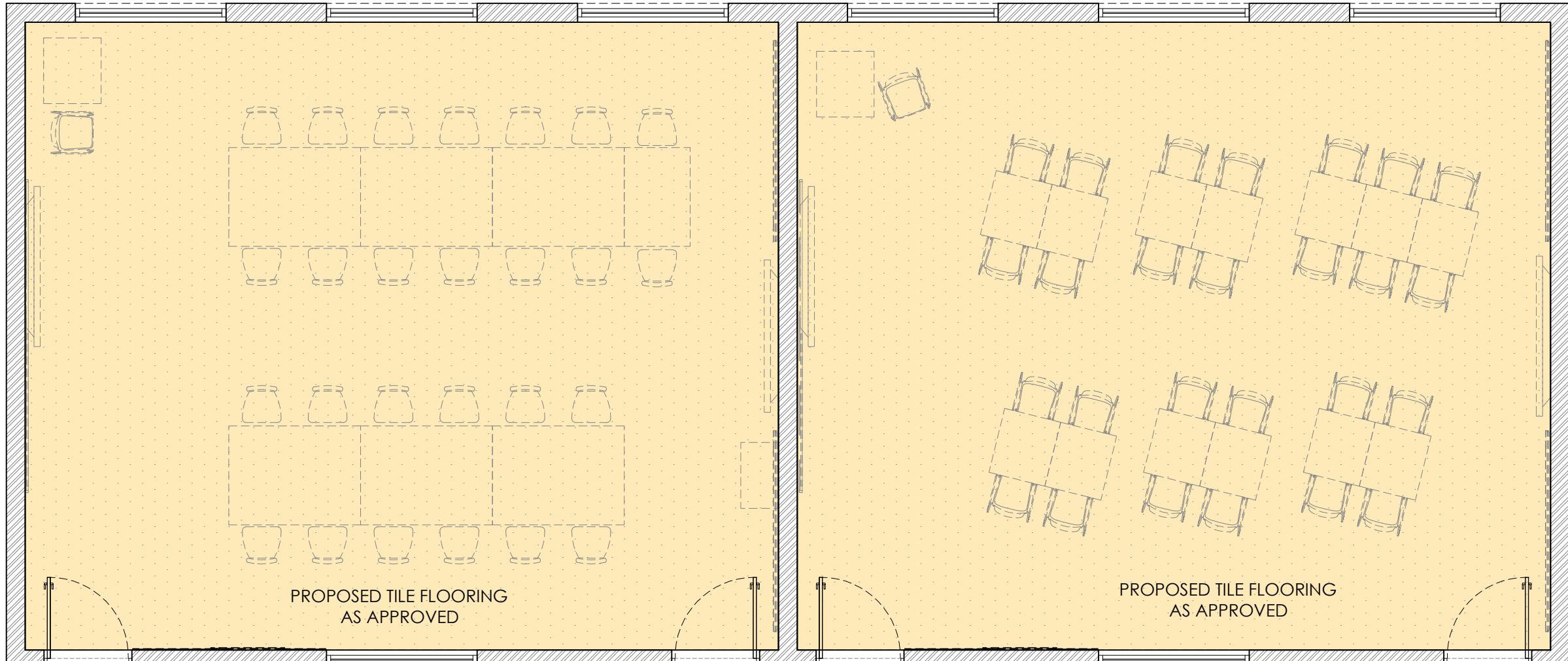
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Checked	SURR.	Scale	1:60
Approved		Job No.	
Sheet size	Drawing No.		Rev. No.

ID-03

A



1. NO DIMENSIONS ARE TO BE SCALED.
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Rev	Date	Description	Drn By	Ckd By
			DISCIPLINE	STATUS

INTERIOR CONSTRUCTION

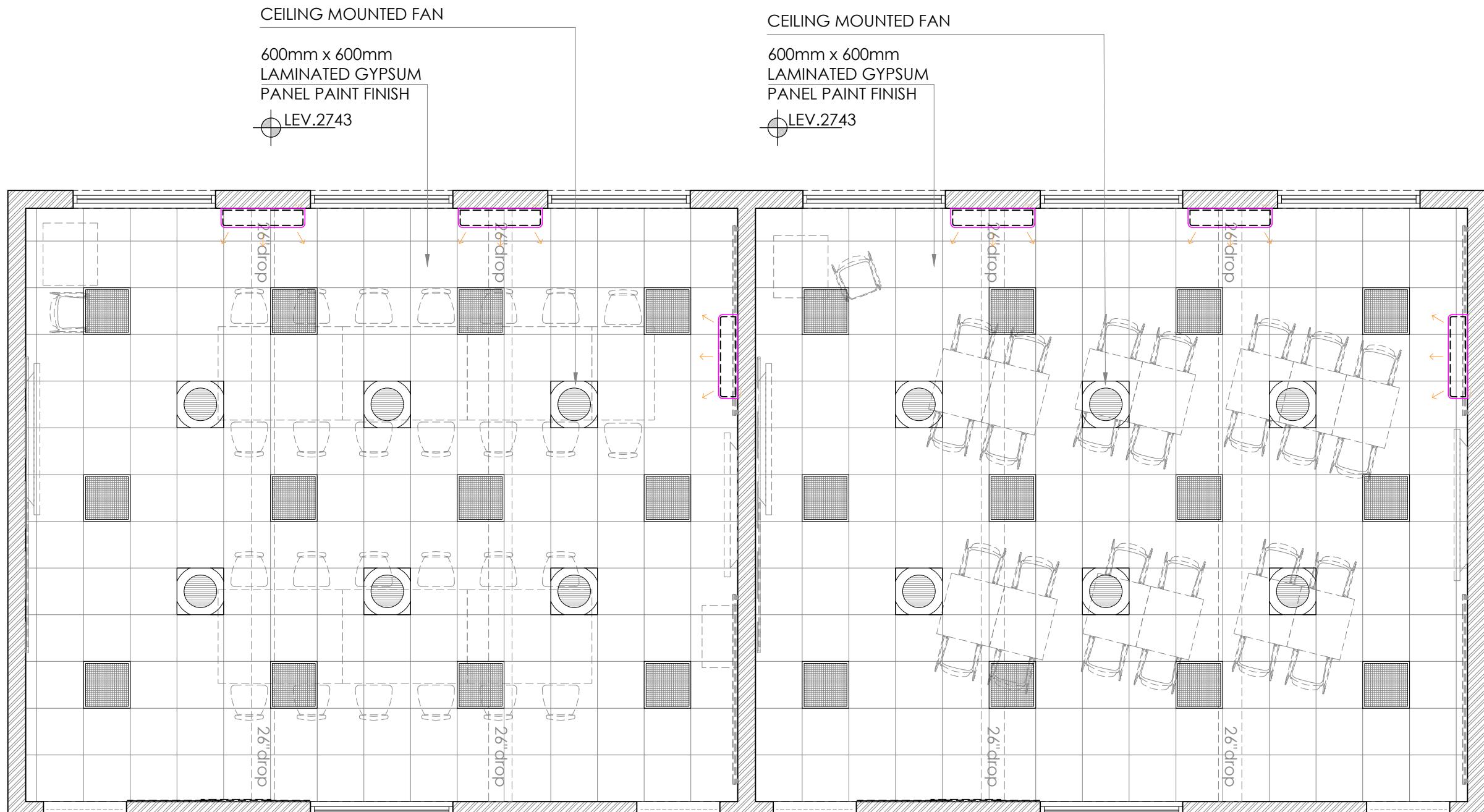
Drawing Title

## FLOORING LAYOUT

Drawn	SURR.	Date	Dec. 2025
Checked	SURR.	Scale	1:60
Approved		Job No.	
Sheet size	Drawing No.		Rev. No.
	ID-04		A



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Rev	Date	Description	Drn By	Ckd By
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INTERIOR				CONSTRUCTION

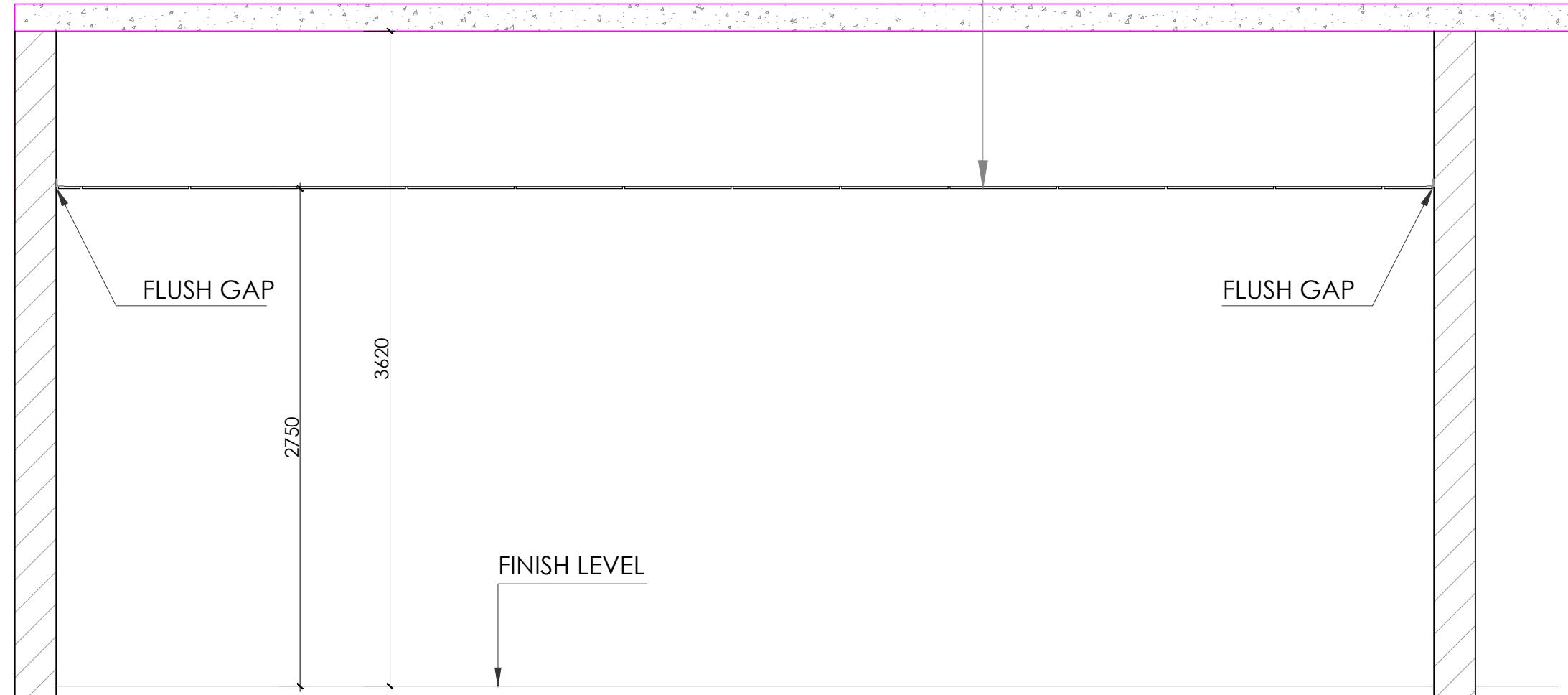
Drawing Title

**CEILING LAYOUT  
REVISED**

Drawn	SURR.	Date	Dec. 2025
Checked	SURR.	Scale	1:60
Approved		Job No.	
Sheet size	Drawing No.		Rev. No.
	ID-05		A

600mm x 600mm LAMINATED  
GYPSUM PANEL PAINT FINISH

LEV.2743

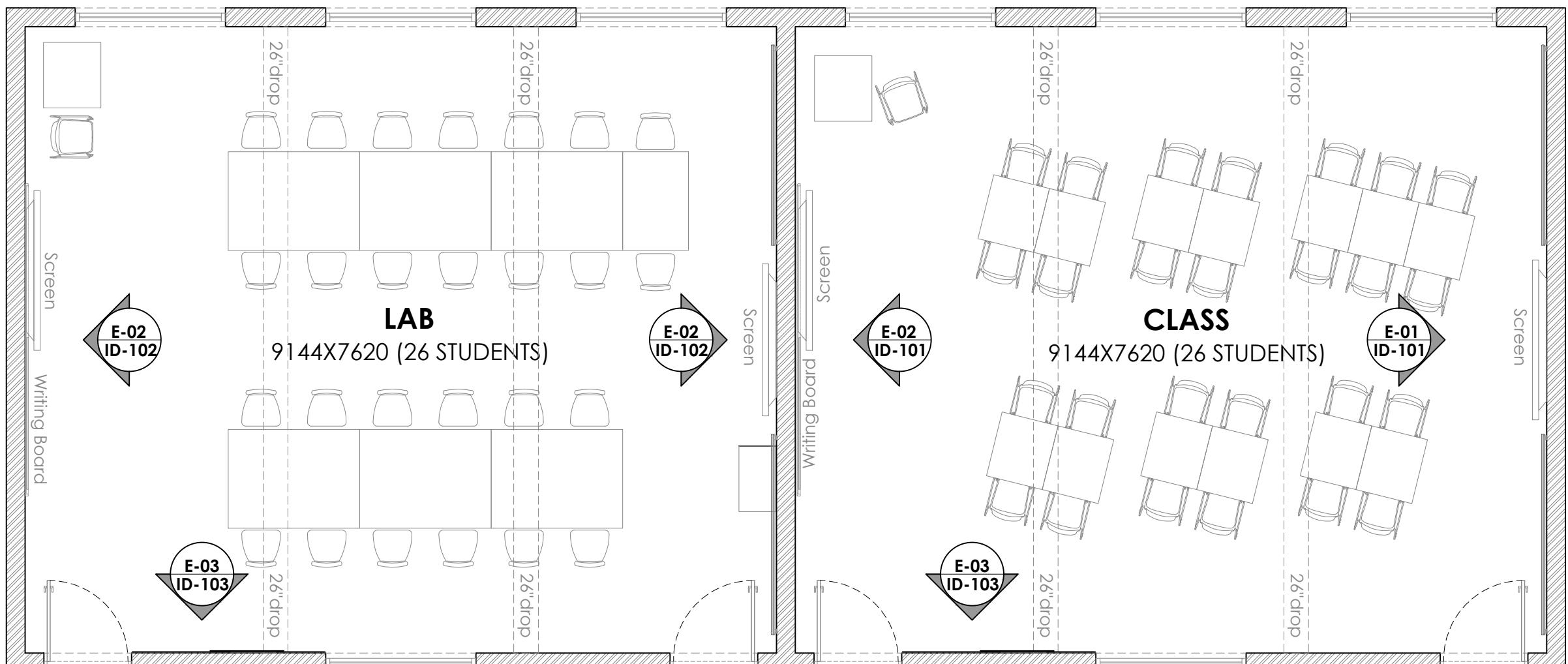


# SECTION-01

Rev	Date	Description	Drn By	Ckd By
DISCIPLINE		STATUS		
INTERIOR DESIGN		Tender Drawing		
Drawing Title				
<h1>CEILING SECTIONS</h1>				
Drawn	SURR.	Date	Dec-25	
Checked	SURR.	Scale	1:30	
Approved		Job No.		
Sheet size	Drawing No.			Rev. No.
A3	ID-5A			



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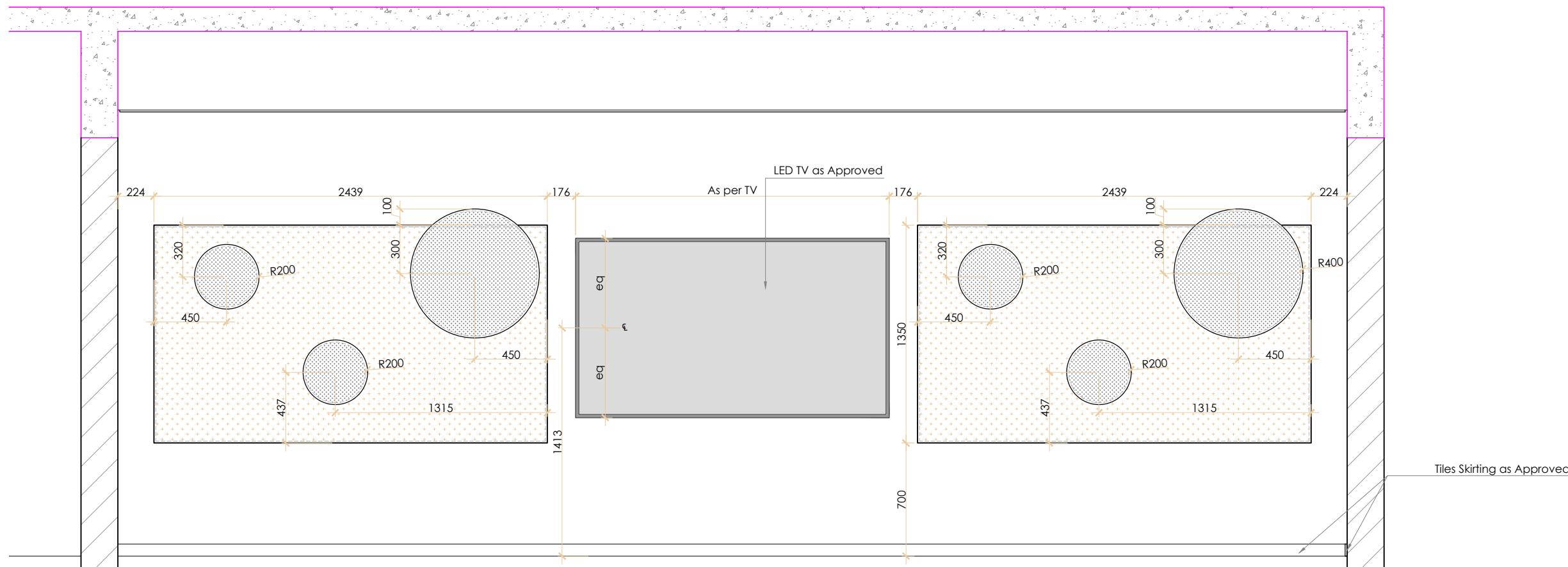
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INTERIOR	CONSTRUCTION

Drawing Title

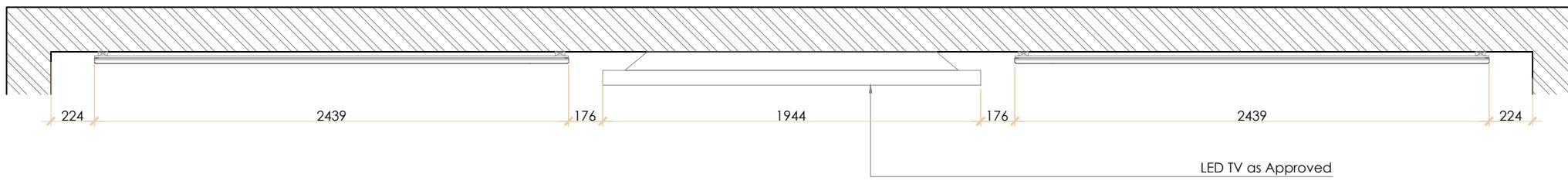
## ELEVATION MARKING LAYOUT

Drawn	SURR.	Date	Dec. 2025
Checked	SURR.	Scale	1:60
Approved		Job No.	
Sheet size	Drawing No.	Rev. No.	

ID-06

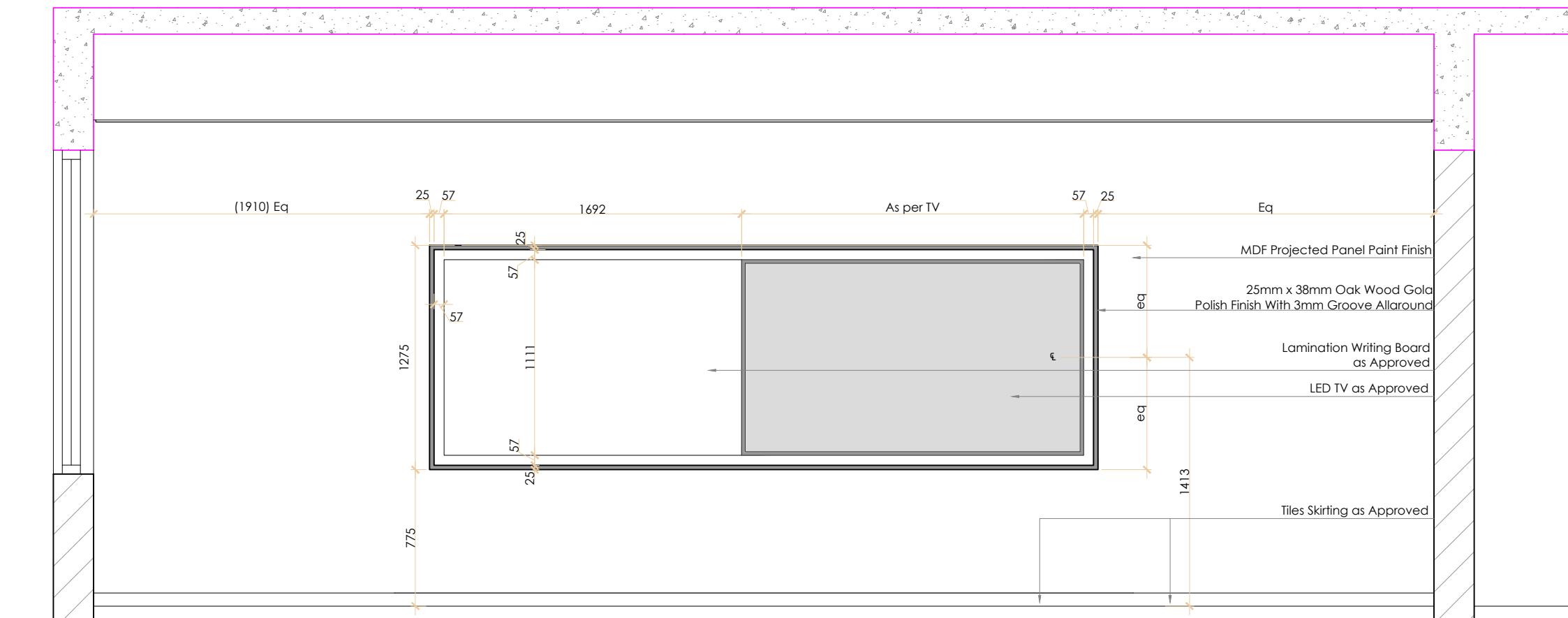


**ELEVATION-01**

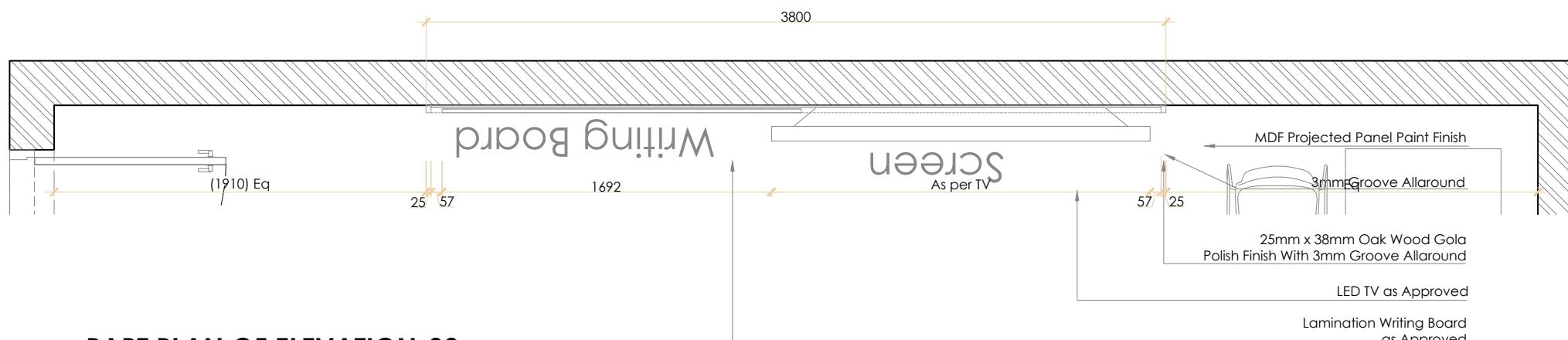


**PART PLAN OF ELEVATION-01**

Rev	Date	Description	Drawn By	Checked By			
		DISCIPLINE	STATUS				
		INTERIOR DESIGN	Tender Drawing				
		Drawing Title					
<b>ELEVATIONS &amp; SECTIONS</b>							
Drawn	SURR.	Date	Dec-25				
Checked	SURR.	Scale	1:30				
Approved		Job No.					
Sheet size		Drawing No.		Rev. No.			
A3		ID-101					

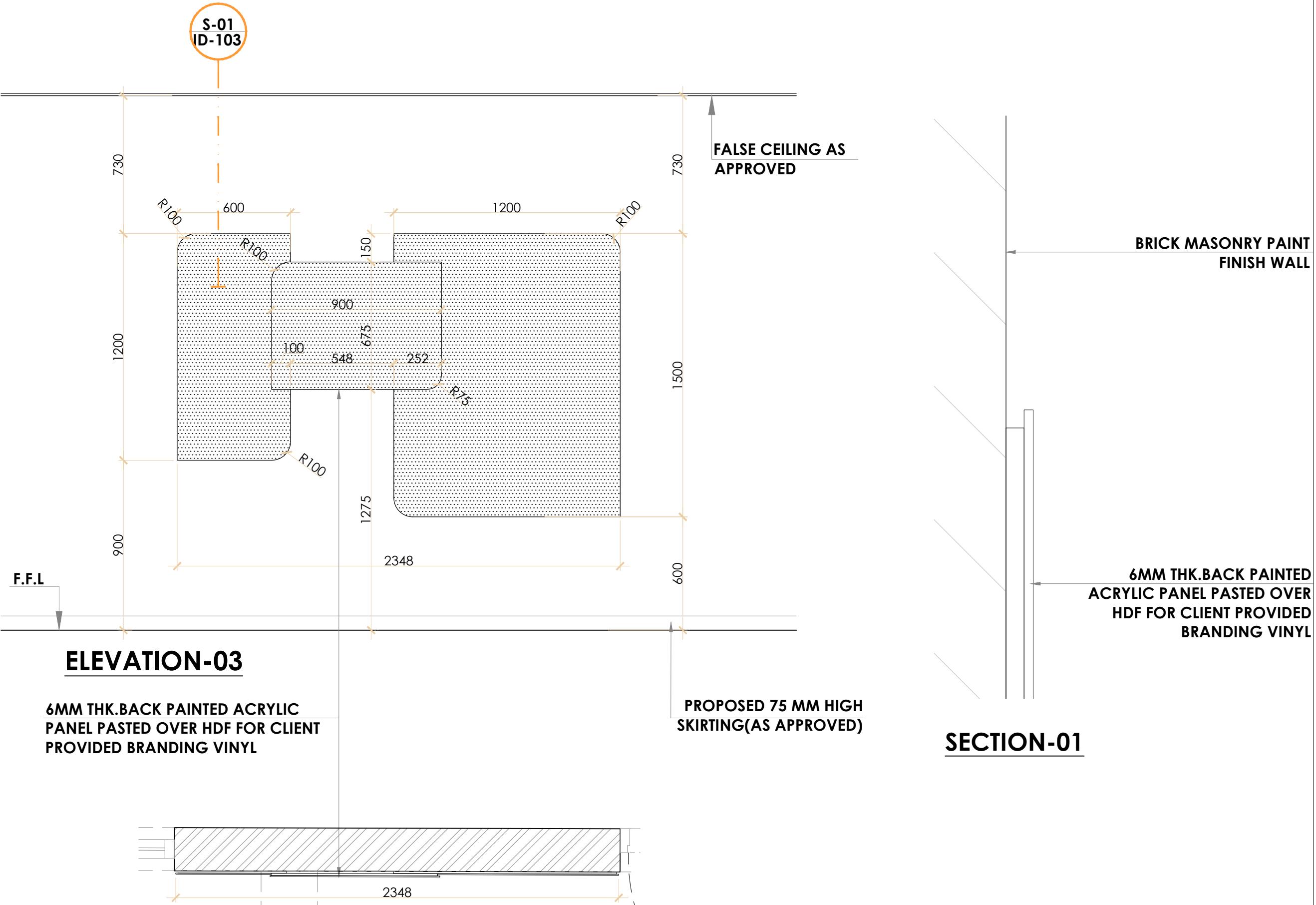


## LEVEL-02



## **PART PLAN OF ELEVATION-02**

Rev	Date	Description	Drn By	Ckd By
DISCIPLINE			STATUS	
INTERIOR DESIGN			Tender Drawing	
Drawing Title				
<b>ELEVATIONS &amp; SECTIONS</b>				
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checked	SURR.	Scale	1:30	
pproved		Job No.		
sheet size	Drawing No.			Rev. No.
A3	ID-102			



## PART PLAN OF ELEVATION-03

Drawn	SURR.	Date	Dec-25
Checked	SURR.	Scale	1:20
Approved		Job No.	
Sheet size	Drawing No.		Rev. No.
A3	<b>IP-103</b>		

**ANNEX-04**

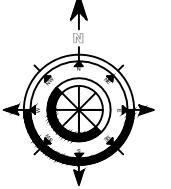
**BRITISH COUNCIL  
SPOKE-D.I KHAN**

**ELECTRICAL DRAWINGS PACKAGE  
(ISSED FOR TENDER)**

## LIST OF DRAWING

PROJECT NAME : BRITISH SPOKES D.I. KHAN

		REVISION	00	01						
		DRAWING STATUS	R	R						
		YEAR	25	25						
		MONTH	DEC	DEC						
		DAY	03	06						
S.NO.	DWG. NO.	TITLE	SCALE	S.SIZE	STATUS					
00	BC_DIK-EL-00	COVER SHEET	N.T.S	A3	✓	✓				
01	BC_DIK-EL-01	LIST OF DRAWINGS	N.T.S	A3	✓	✓				
02	BC_DIK-EL-02	LEGENDS, GENERAL NOTES	N.T.S	A3	✓	✓				
03	BC_DIK-EL-03	ELECTRICAL STANDARD DETAILS	N.T.S	A3	✓	✓				
04	BC_DIK-EL-04	POWER SINGLE LINE DIAGRAM	N.T.S	A3	✓	✓				
05	BC_DIK-EL-05	SYSTEMS SCHEMATIC DIAGRAM	N.T.S	A3	✓	✓				
06	BC_DIK-EL-06	RCP LAYOUT PLAN	3/16" = 1'-0"	A3	✓	✓				
07	BC_DIK-EL-07	LIGHTING LAYOUT PLAN	3/16" = 1'-0"	A3	✓	✓				
08	BC_DIK-EL-08	POWER LAYOUT PLAN	3/16" = 1'-0"	A3	✓	✓				
09	BC_DIK-EL-09	DATA & VOICE LAYOUT PLAN	3/16" = 1'-0"	A3	✓	✓				
10	BC_DIK-EL-10	CCTV & EM LIGHTS LAYOUT PLAN	3/16" = 1'-0"	A3	✓	✓				
11	BC_DIK-EL-10	FIRE ALARM LAYOUT PLAN	3/16" = 1'-0"	A3	✓	✓				
S - SUBMISSION DRAWINGS		R - REVIEW DRAWINGS	T - TENDER DRAWINGS			C - CONSTRUCTION DRAWINGS				

PROJECT		 <b>BRITISH COUNCIL</b> <b>PAKISTAN SPOKES</b> <b>D.I. KHAN</b>																						
ID CONSULTANT		 <b>ARCHITECTS</b> <b>SURROUND</b> <small>Office Suite 102, 14C-Sheraton Commercial Lane 4, Off 24th Street Phase 4 Landline: +9221 35172438   +9221 35172439 Email: surroundarchitects@gmail.com Logon to: www.surrounddesignstudio.com.pk</small>																						
ELECTRICAL & I.T CONSULTANT		 <b>A.A. TECHNO ENGINEERS</b> <b>ELECTRICAL &amp; I.T. CONSULTANTS</b> <small>1st Floor, Plot 8C, South Park Avenue, D.H.A. Phase-II (Exten.), Karachi (+9221) 3588-5740   info@aatechneengineers.com</small>																						
<b>NOTES</b> <small>THIS DRAWINGS IS THE PROPERTY OF A.A. TECHNO ENGINEERS. THIS DRAWING MAY NOT BE USED, REPRODUCED, OR UTILIZED IN ANY WAY OTHER THAN THE PURPOSE FOR WHICH IT IS INTENDED WITHOUT THE WRITTEN AUTHORIZATION OF AA TECHNO ENGINEERS</small>																								
																								
<table border="1"> <tr> <td>01</td> <td>06-12-2025</td> <td>Issued For Review</td> <td>J.M</td> <td>M.D</td> </tr> <tr> <td>00</td> <td>03-12-2025</td> <td>Issued For Review</td> <td>J.M</td> <td>M.D</td> </tr> <tr> <td>Rev</td> <td>Date</td> <td>Description</td> <td>Drn By</td> <td>Ckd By</td> </tr> </table>		01	06-12-2025	Issued For Review	J.M	M.D	00	03-12-2025	Issued For Review	J.M	M.D	Rev	Date	Description	Drn By	Ckd By								
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<table border="1"> <tr> <td>DISCIPLINE</td> <td>STATUS</td> </tr> <tr> <td>ELECTRICAL</td> <td>REVIEW</td> </tr> </table>		DISCIPLINE	STATUS	ELECTRICAL	REVIEW																			
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Drawing Title																								
LIST OF DRAWINGS																								
<table border="1"> <tr> <td>Drawn</td> <td>JAWAD MIRZA</td> <td>Date</td> <td>DEC 2025</td> </tr> <tr> <td>Checked</td> <td>MOBEEN DAWOOD</td> <td>Scale</td> <td>N.T.S</td> </tr> <tr> <td>Approved</td> <td></td> <td>Job No.</td> <td></td> </tr> <tr> <td>Sheet size</td> <td>Drawing No.</td> <td colspan="2">Rev. No.</td> </tr> <tr> <td></td> <td>BC_DIK-EL-01</td> <td colspan="2">00</td> </tr> </table>					Drawn	JAWAD MIRZA	Date	DEC 2025	Checked	MOBEEN DAWOOD	Scale	N.T.S	Approved		Job No.		Sheet size	Drawing No.	Rev. No.			BC_DIK-EL-01	00	
Drawn	JAWAD MIRZA	Date	DEC 2025																					
Checked	MOBEEN DAWOOD	Scale	N.T.S																					
Approved		Job No.																						
Sheet size	Drawing No.	Rev. No.																						
	BC_DIK-EL-01	00																						

## LEGENDS

SYMBOL	DESCRIPTION	MOUNTING
	DISTRIBUTION BOARD - DB	1350mm AFFL
	TRIPLE POLE, 500 VOLTS, MOLDED CASE CIRCUIT BREAKER (RUPTURING CAPACITY INDICATED ON DRAWINGS)	
	MINIATURE CIRCUIT BREAKER TRIPLE POLE 500 VOLTS (RUPTURING CAPACITY INDICATED ON DRAWING (32 AMPERES)	
	MINIATURE CIRCUIT BREAKER TRIPLE POLE 500 VOLTS (RUPTURING CAPACITY INDICATED ON DRAWING (32 AMPERES)	
	MINIATURE CIRCUIT BREAKER TRIPLE POLE 250 VOLTS (RUPTURING CAPACITY INDICATED ON DRAWING (32 AMPERES)	
	LOAD BREAK SWITCH (RUPTURING CAPACITY INDICATED ON DRAWING)	
	EARTH LEAKAGE CIRCUIT BREAKER FOUR POLE 500 VOLTS (TRIP RATING INDICATED ON DRAWING) (40 AMPERES)	
	INSTRUMENT PROTECTION FUSES (THREE NOS.)	
	PHASE INDICATION LAMPS R-RED Y-YELLOW B-BLUE	
	FOUR POLE MANUAL CHANGEOVER SWITCH	
	PULL BOX	CEILING / FLOOR

## SCHEDULE OF LIGHT FIXTURE

FIX ID	SYMBOL	DESCRIPTION	COLOR TEMP.	MOUNTING
ALL LIGHTS SHALL HAVE VOLTAGE RANGE 120V -240V WITH MINIMUM 0.9PF				
A		12W LED DOWN LIGHT	4000K	CEILING/SURFACE
B		43W 1' x 4' LED FLAT PANEL	4000K	CEILING/HANGING
C		10WIRFT 2' LED LINEAR CONTINUOUS LIGHT	4000K	CEILING/HANGING
D		10WIRFT 2' LED STRIP LIGHT	4000K	SURFACE

## ELECTRICAL CONDUIT LAYERS

NAMES	LAYERS	ARROW
LIGHTING		
POWER		
UPC POWER		
DATA		
VOICE		
HDMI		
CCTV CAMERA		
EMERGENCY LIGHTS		
SPEAKER		
FIRE ALARM		

SYMBOL	13A S.S.O (FLAT PIN) DUPLEX UPS	13A S.S.O (FLAT PIN) SIMPLEX UPS	13A S.S.O (UNIVERSAL) K.E.	DATA (CAT6 RJ45)	VOICE (CAT6 RJ45)	USB TYPE A-1(WITH 13AINT)	USB TYPE C(WITH 13AINT)
	0	2	1	1	1	0	0
	1	0	1	2	1	0	0
	0	2	2	1	1(VoIP)	0	0
FLOOR TYPE	0	0	2	0	0	1	1
	1	0	1	2	1	0	0
		1		1			

## NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE CIVIL, PLUMBING, HVAC, DRAWINGS & INSTALLATION WORK CAREFULLY COORDINATED ON SITE. EXACT LOCATION OF OUTLETS EQUIPMENT & ROUTING OF RACEWAYS ARE TO BE APPROVED BY THE ENGINEER/ARCHITECT.
- MINIMUM PVC/EMT CONDUIT SIZE SHALL BE 20mm DIA UNLESS OTHERWISE NOTED.
- MAXIMUM PVC/EMT CONDUIT CAPACITY FOR PVC CABLES SHALL BE AS FOLLOWS:

CONDUIT	CABLES(sq.mm)	1.5	2.5	4.0	6.0	10	16	25
20mm DIA		8	6	4	3	2	-	-
25mm DIA		18	11	8	6	4	3	2
32mm DIA		26	17	13	10	6	4	3

- SINGLE CORE PVC/LSZH INSULATED WIRE SIZES SHALL BE AS FOLLOWS:  
LIGHT/FAN/SOCKET/BELL POINT 2x1.5 sq.mm + 1.5 sq.mm CPC  
LIGHT CIRCUIT (FROM SWITCH TO DB) 2x2.5 sq.mm + 2.5 sq.mm CPC  
15AMP SOCKET OUTLET 2x4.0 sq.mm + 4.0 sq.mm CPC  
15AMP SOCKET OUTLET IN PARALLEL 2x4.0 sq.mm + 4.0 sq.mm CPC
- EACH LIGHT/POWER CIRCUIT SHALL BE LAID IN A SEPARATE CONDUIT FROM THE DB
- SEPARATE CONDUITS (MIN 25mm DIA) SHALL BE LAID FOR EACH OF THE TELEPHONE/VOICE, FIRE ALARM, CCTV, PA, SECURITY, DATA, CENTRALISED POWER CONDITIONING SYSTEMS CABLES.
- CAREFULLY COORDINATE CONDUIT DROPS/RISERS WITH WALL POSITIONS.
- NO CHASING /CUTTING OF THE STRUCTURE SHALL BE CARRIED OUT UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE ENGINEER/ARCHITECT.
- OUTLETS ALONG BASIN/COUNTERS SHALL BE AT 1000mm AFFL.
- SWITCHES ON DIFFERENT PHASES (OR ON EMERGENCY CIRCUITS) SHALL BE INSTALLED IN SEPARATE BACK-BOXES
- BACK-BOXES (WITH EARTH TERMINAL) & PULL BOXES SHALL BE OF 18 SWG G.I SHEET STEEL.
- CIRCUITS IN DB(s) ARE TO BE ARRANGED IN SUCH A WAY THAT LOAD BALANCING IS ACHIEVED. ALL SINGLE PHASE CIRCUIT CABLES ARE TO BE IN RED COLOR AND LABELED AND THREE PHASE CIRCUIT CABLES SHALL BE IN RED, YELLOW & BLUE. LOAD DISTRIBUTION / CIRCUIT MAPPING SHEET TO BE PROVIDED IN DB AS PER CONSULTANT's INSTRUCTIONS.
- ALL EXTERNAL EQUIPMENT SHALL BE WEATHER PROOF TYPE. IP56 OR IP65 AS REQUIRED.
- THE ENTIRE ELECTRICAL INSTALLATIONS AND METAL RACEWAYS SHALL BE PROPERLY EARTHD.
- SHOP DRAWING TO BE SUBMITTED FOR CONSULTANT's APPROVAL BEFORE COMMENCEMENT OF WORK AND SHALL INCLUDE EXACT LOCATIONS OF OUTLETS, FIXTURES, EQUIPMENTS AND CONDUIT RUN, PULL BOXES, ETC. SHOP DRAWING SHALL BE COORDINATED WITH OTHER WORKS AND SERVICES ON SITE.
- MAXIMUM PVC/EMT CONDUIT CAPACITY FOR TELEPHONE CABLE SHALL BE AS FOLLOWS:-

CONDUIT	CABLES	2p	5p	7p	10p	15p	20p	25p	30p	50p
20mm DIA		4	2	1	-	-	-	-	-	-
25mm DIA		7	3	2	1	1	1	1	1	-
32mm DIA		14	5	3	3	3	2	2	1	-
38mm DIA		18	6	6	4	4	3	2	2	1
50mm DIA		-	-	-	6	6	4	4	3	1

## FURNITURE OUTLET BOX SCHEQUE

## PROJECT

**BRITISH COUNCIL**  
**PAKISTAN SPOKES**  
**D.I. KHAN**

## ID CONSULTANT

**ARCHITECTS**  
**SUR•UD**

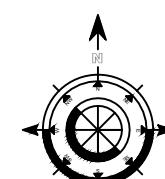
Office Suite 102, 14C-Sheraton Commercial Lane 4,  
Off 24th Street Phase 4  
Landline: +9221 35172438 +9221 35172439  
Email: surroundarchitects@gmail.com  
Logon to: www.surrounddesignstudio.com.pk

## ELECTRICAL &amp; I.T CONSULTANT

**A.A. TECHNO ENGINEERS**  
ELECTRICAL & I.T. CONSULTANTS  
1st Floor, Plot 8C, South Park Avenue, D.H.A. Phase-II (Exten.), Karachi  
(+9221) 3588-5740 | info@aatechneengineers.com

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01	06-12-2025	Issued For Review	J.M	M.D
00	03-12-2025	Issued For Review	J.M	M.D

Rev	Date	Description	Drn By	Ckd By

DISCIPLINE	STATUS
ELECTRICAL	REVIEW

Drawing Title	

## LEGENDS, GENERAL NOTES

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEN DAWOOD	Scale	N.T.S
Approved		Job No.	
Sheet size	Drawing No.	Rev. No.	
			BC_DIK-EL-02
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**BRITISH COUNCIL**  
**PAKISTAN SPOKES**  
**D.I. KHAN**

ID CONSULTANT

**SUR•UD**

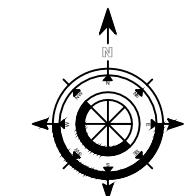
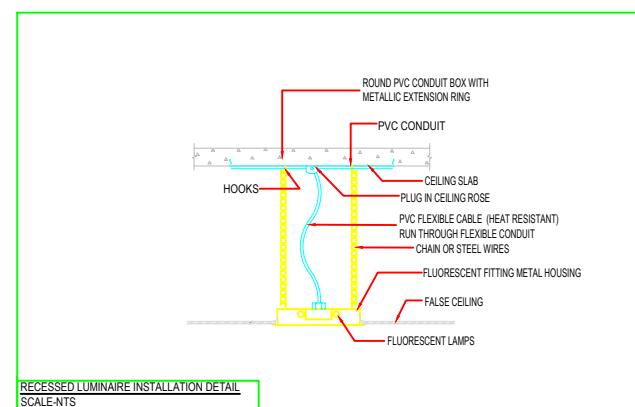
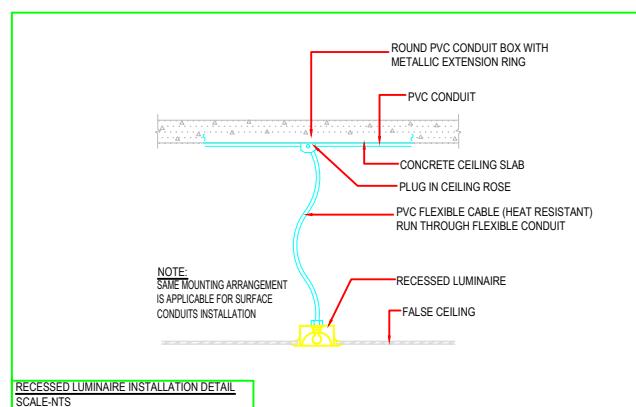
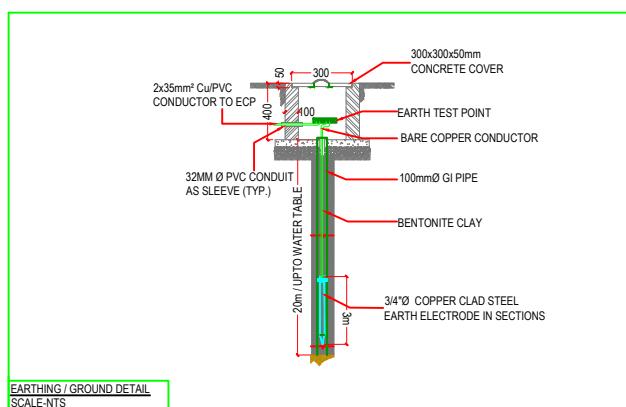
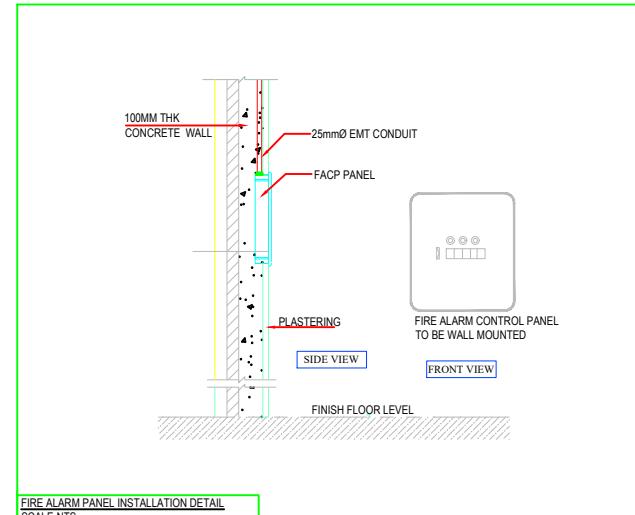
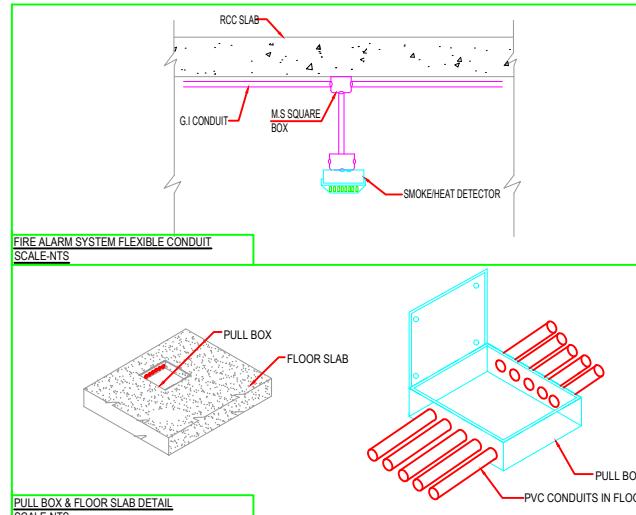
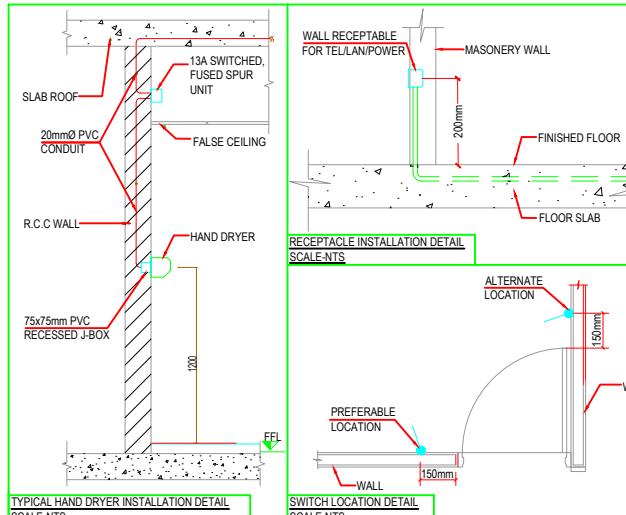
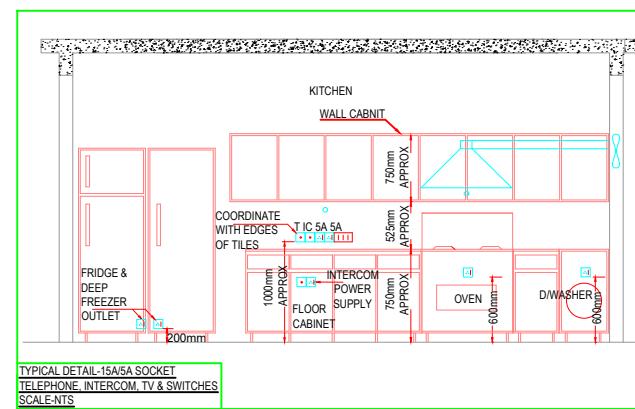
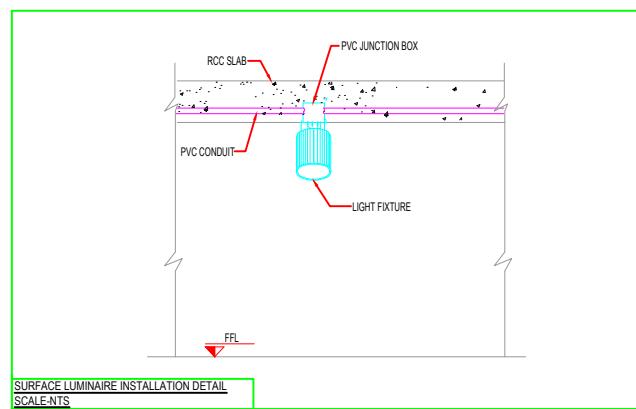
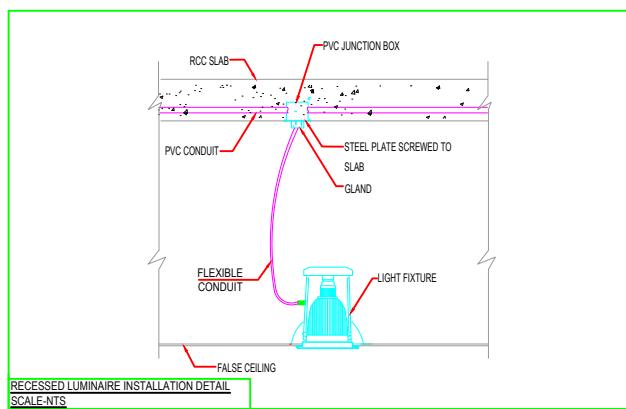
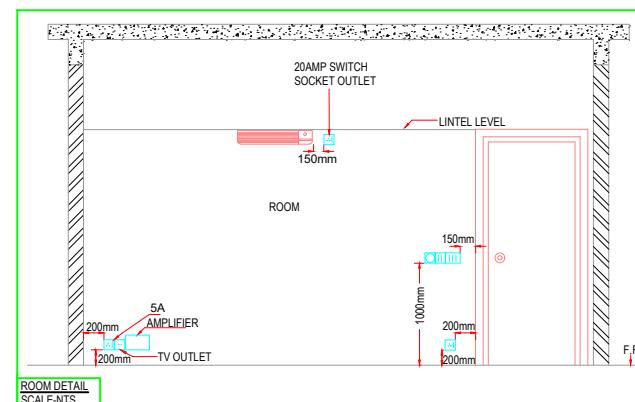
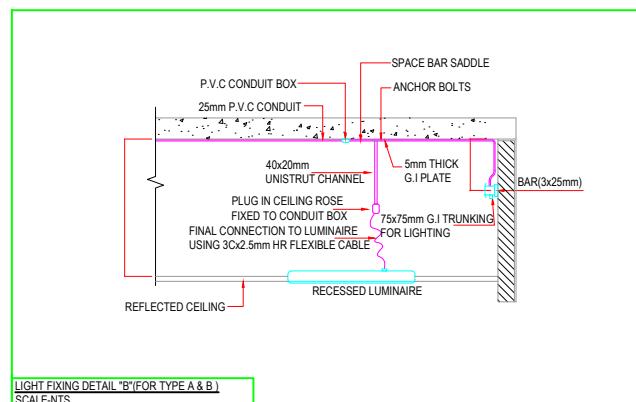
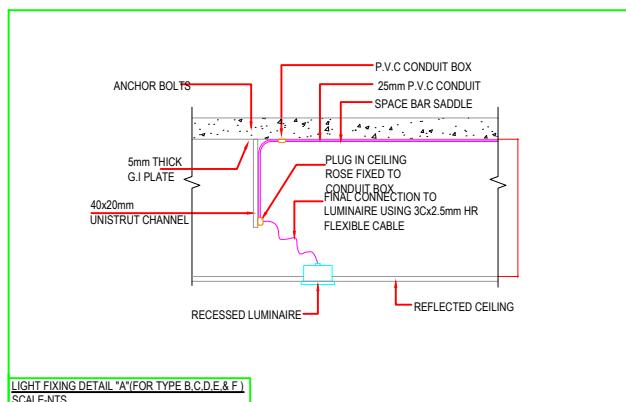
Office Suite 102, 14C Shehbaz Commercial Lane 4,  
Off 24th Street Phase 4  
Landline: +9235172438 +9235172439  
Email: surroundarchitects@gmail.com  
Logon to: www.surrounddesignstudio.com.pk

ELECTRICAL & I.T CONSULTANT

**A.A. TECHNO ENGINEERS**  
ELECTRICAL & I.T. CONSULTANTS  
1st Floor, Plot 8C, South Park Avenue, D.H.A. Phase-II (Exten.), Karachi  
(+9221) 3588-5740 | info@aatechneengineers.com

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01 06-12-2025 Issued For Review J.M M.D  
00 03-12-2025 Issued For Review J.M M.D

Rev Date Description Drn By Ckd By

DISCIPLINE STATUS

ELECTRICAL REVIEW

Drawing Title

**ELECTRICAL STANDARD DETAIL**

Drawn JAWAD MIRZA Date DEC 2025  
Checked MOBEEN DAWOOD Scale N.T.S

Approved Job No.

Sheet size Drawing No. Rev. No.

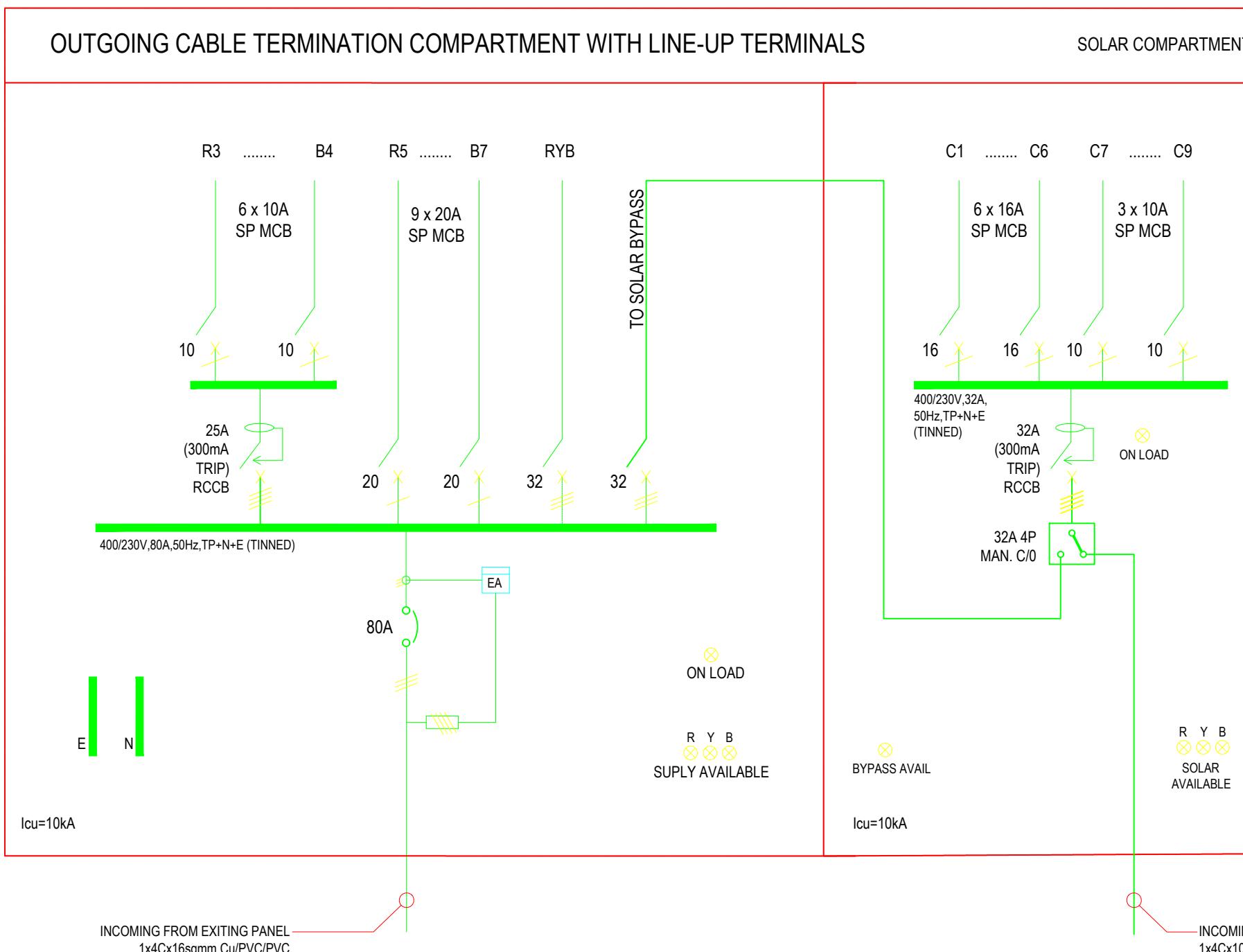
BC\_DIK-EL-03 00

## DBLP-CDB (MODIFIED FORM 2B)

CABLE	3 x 1C x 2.5 sqmm Cu/PVC	3 x 1C x 4 sqmm Cu/PVC	SPARE	TO SOLAR BYPASS	NOTES: • NON SWITCHED EMERGENCY LIGHT CIRCUIT. NO.B1/ DBLP-CDB	CABLE	3x1Cx2.5 sqmm Cu/PVC	3x1Cx2.5 sqmm Cu/PVC
CIRCUITS IN USE	R3 TO Y4	R5 TO B6				CIRCUITS IN USE	C1 TO C7	R1 TO B1
SPARE CIRCUITS	B4	R7 TO B7				SPARE CIRCUITS	C8 & C9	R2 TO B2
USAGE	5A / 13A SOCKETS	SPLIT A/C				USAGE	SOCKETS ON SOLAR POWER	LIGHTING

## SOLAR COMPARTMENT

## OUTGOING CABLE TERMINATION COMPARTMENT WITH LINE-UP TERMINALS

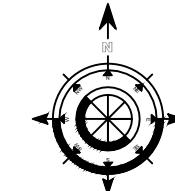


PROJECT  
**BRITISH COUNCIL**  
**PAKISTAN SPOKES**  
**D.I. KHAN**

ID CONSULTANT ARCHITECTS  
**SUR•UD**  
Office Suite 102, 10C-3 Mehrab Commercial Lane, 4,  
Off 24th Street Phase 4  
Landline: +9221 35172438 | +9221 35172439  
Email: surroundarchitects@gmail.com  
Logon to: www.surrounddesignstudio.com.pk

ELECTRICAL & I.T CONSULTANT  
**A.A. TECHNO ENGINEERS**  
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00	03-12-2025	Issued For Review	J.M	M.D

Rev	Date	Description	Drn By	Ckd By
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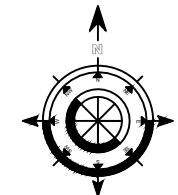
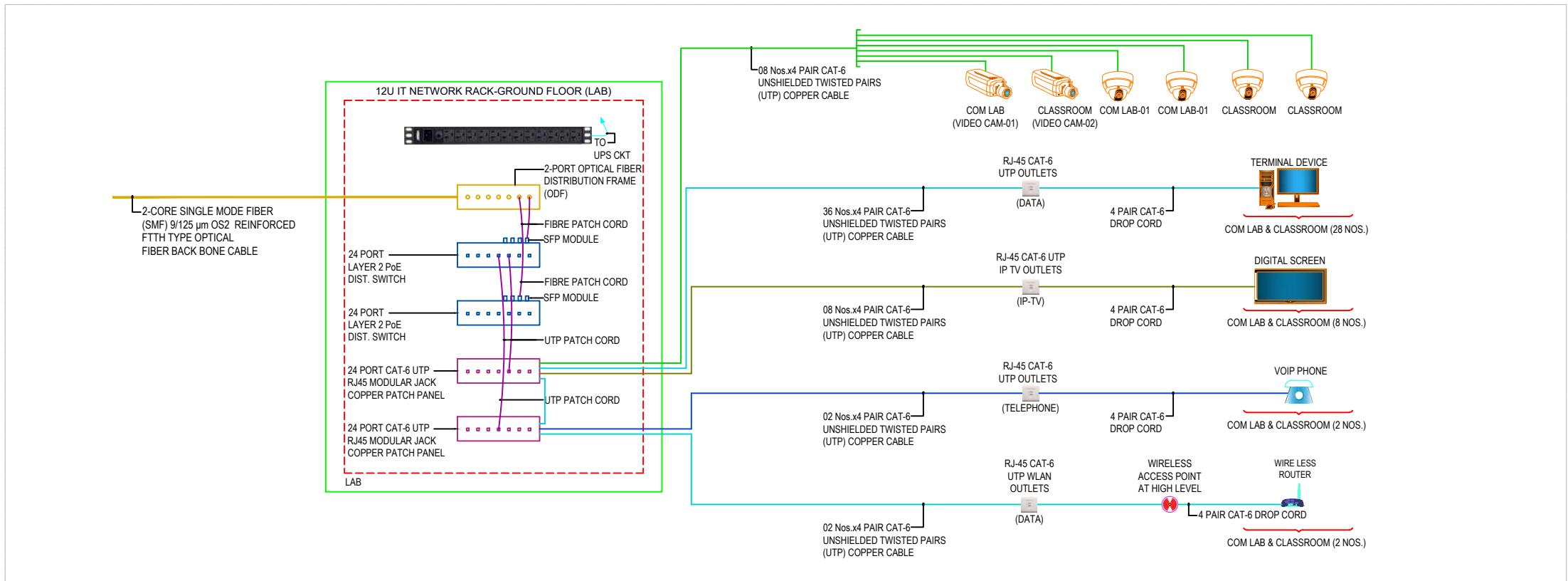
DISCIPLINE	STATUS
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ELECTRICAL	REVIEW
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Drawing Title				
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## POWER SINGLE LINE DIAGRAM

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEN DAWOOD	Scale	N.T.S
Approved		Job No.	
Sheet size	Drawing No.	Rev. No.	
	BC_DIK-EL-04	00	



01	06-12-2025	Issued For Review	J.M	M.D
00	03-12-2025	Issued For Review	J.M	M.D
Rev	Date	Description	Drn By	Ckd By
DISCIPLINE		STATUS		
ELECTRICAL		REVIEW		
Drawing Title				

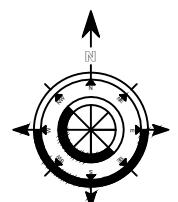
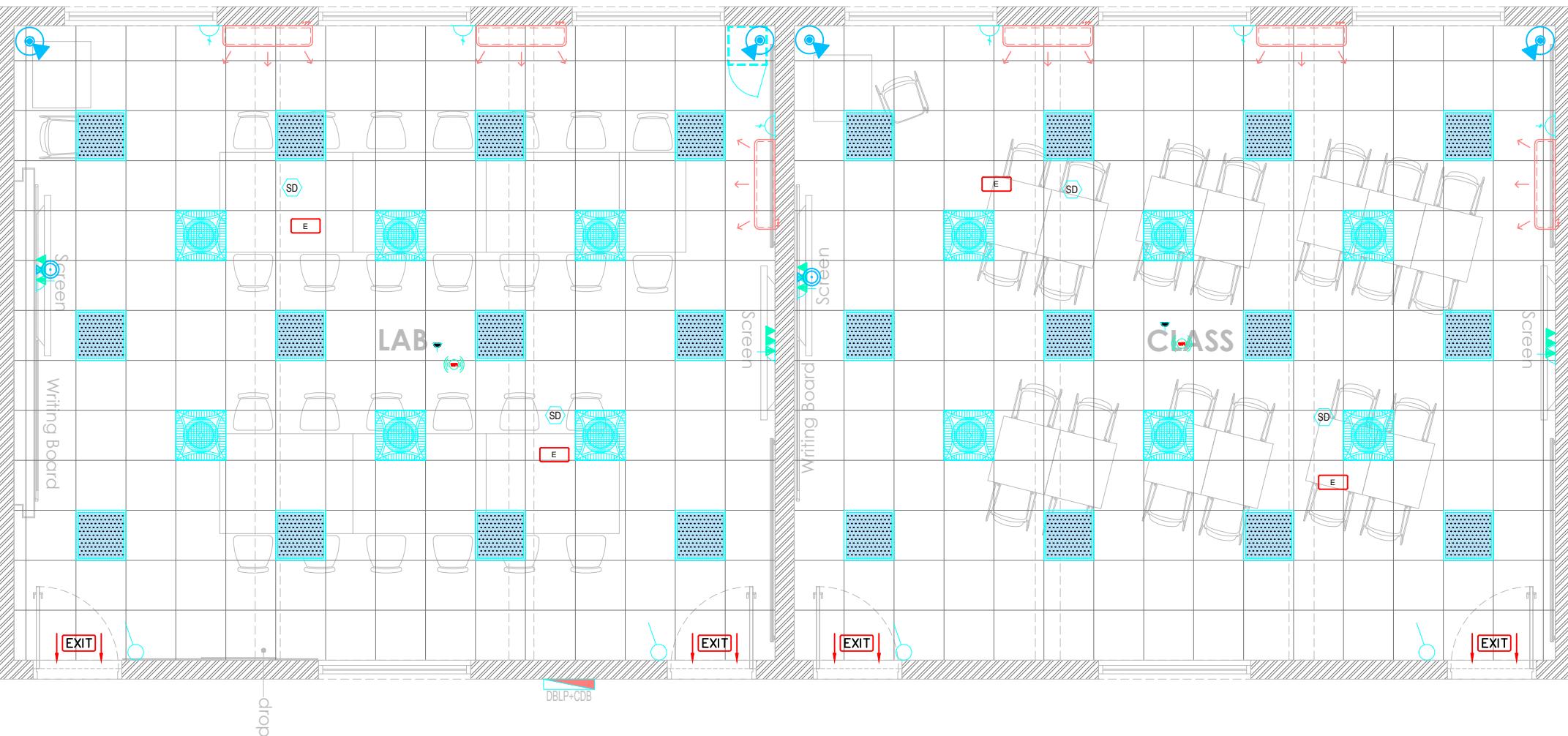
## SYSTEM SCHEMATIC DIAGRAM

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEB DAWOOD	Scale	N.T.S
Approved		Job No.	
Sheet size	Drawing No.		Rev. No.
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00	03-12-2025	Issued For Review	J.M	M.D

Rev	Date	Description	Drn By	Ckd By
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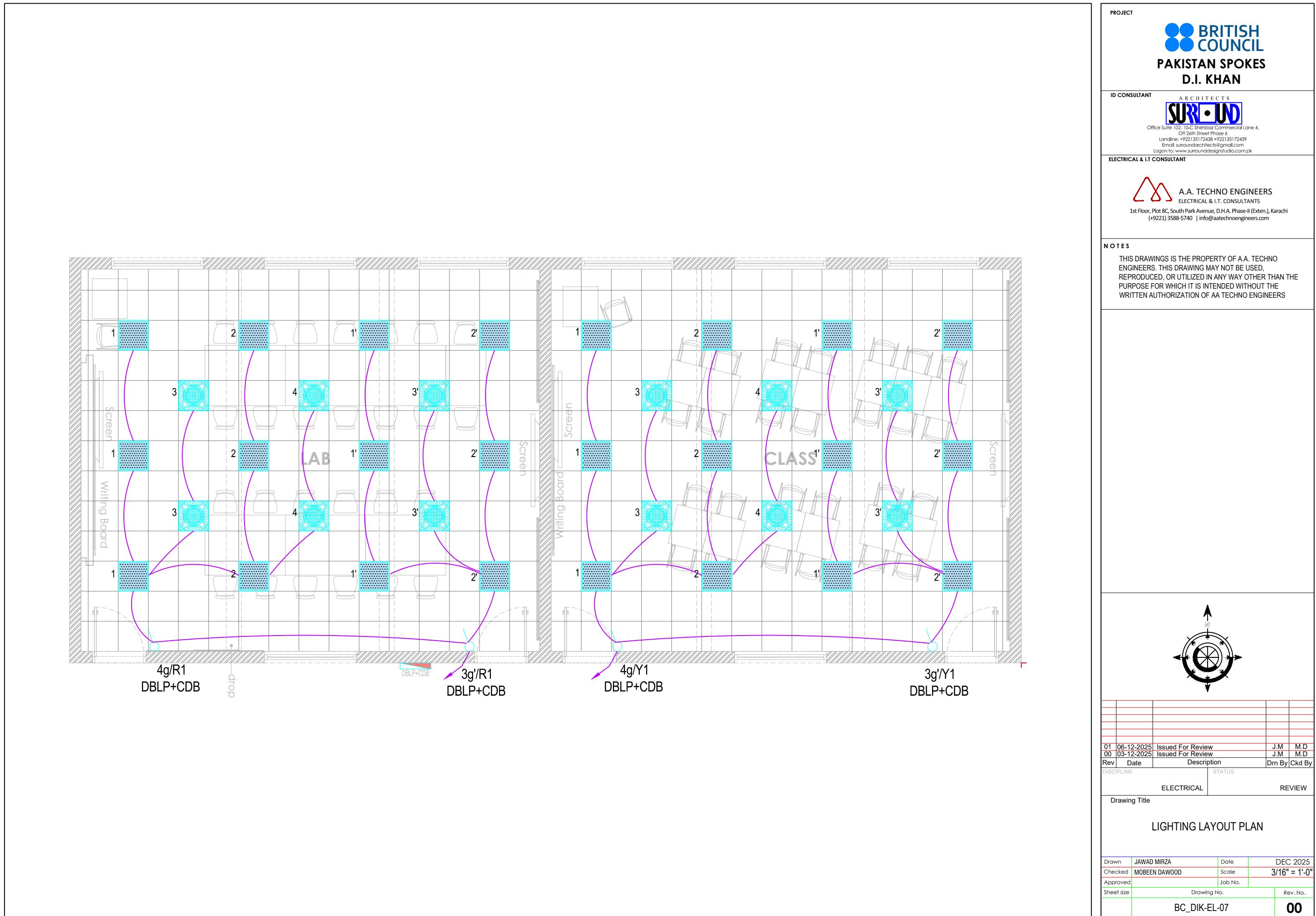
DISCIPLINE		STATUS
ELECTRICAL		REVIEW

Drawing Title

## RCP LAYOUT PLAN

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEN DAWOOD	Scale	3/16" = 1'-0"
Approved		Job No.	

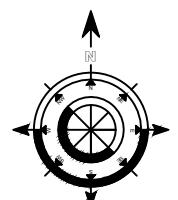
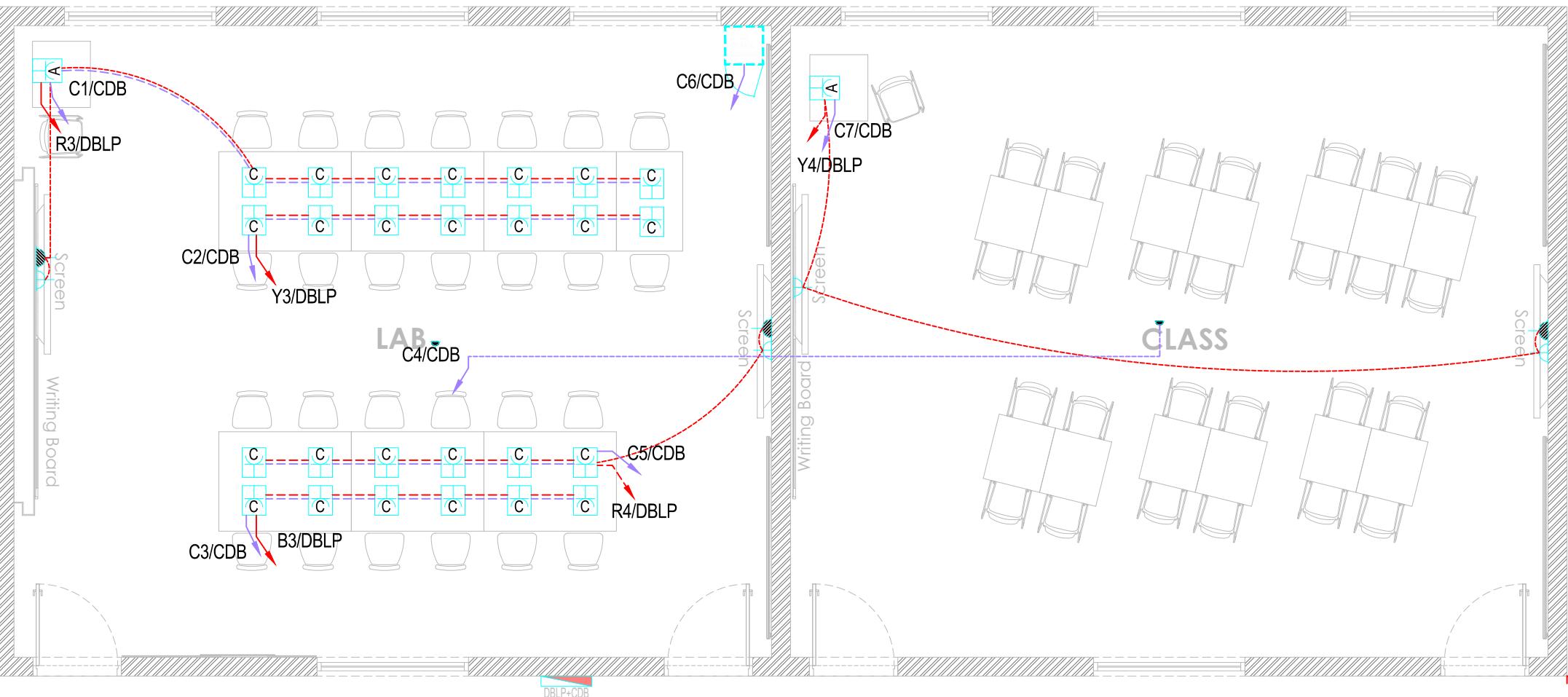
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00	03-12-2025	Issued For Review	J.M	M.D

Rev	Date	Description	Drn By	Ckd By
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DISCIPLINE		STATUS
ELECTRICAL		REVIEW

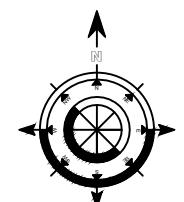
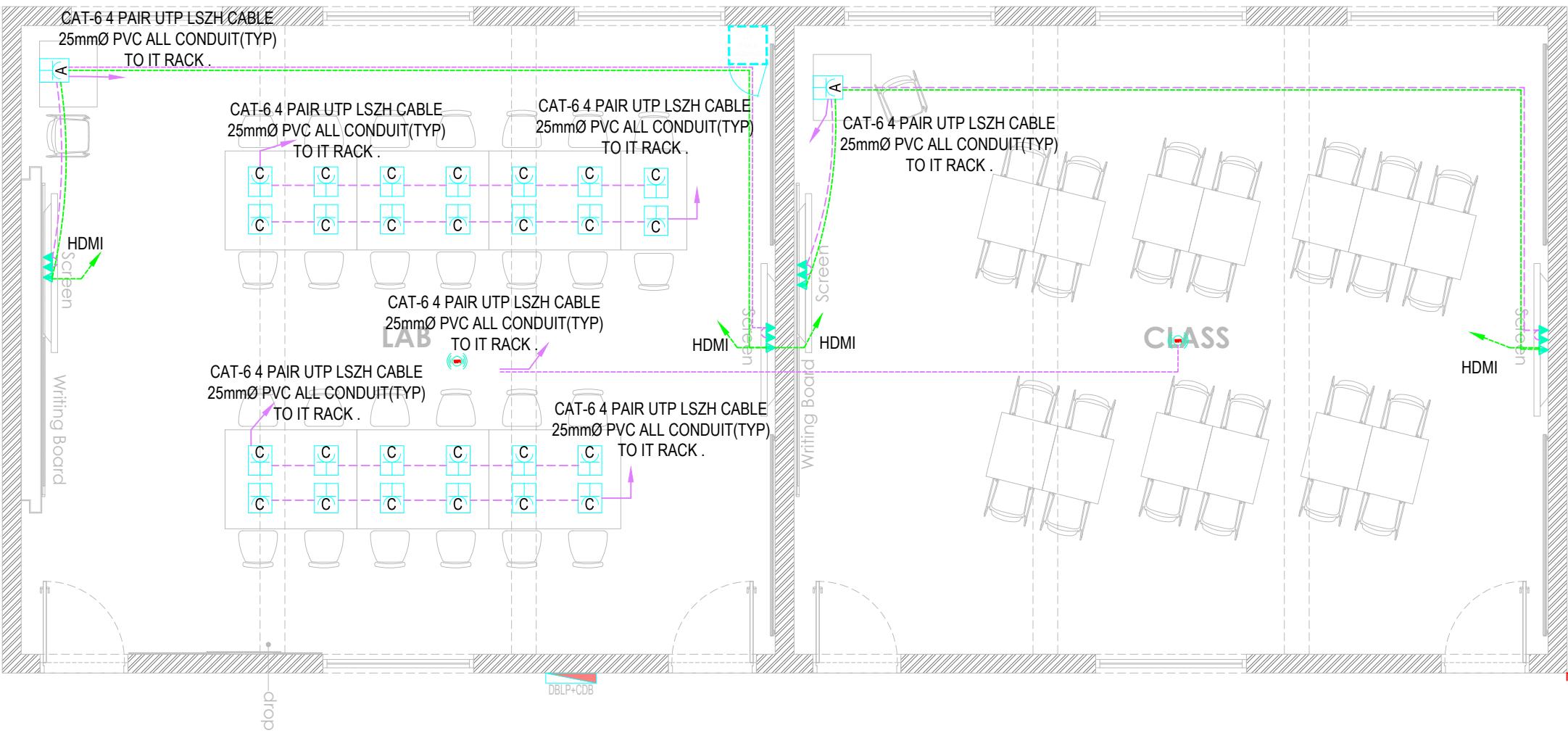
Drawing Title

## POWER LAYOUT PLAN

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEN DAWOOD	Scale	3/16" = 1'-0"
Approved		Job No.	
Sheet size	Drawing No.	Rev. No.	
	BC_DIK-EL-08		00

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Rev	Date	Description	Drn By	Ckd By
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DISCIPLINE		STATUS
ELECTRICAL		REVIEW

Drawing Title

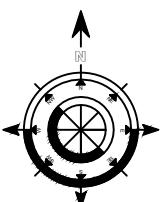
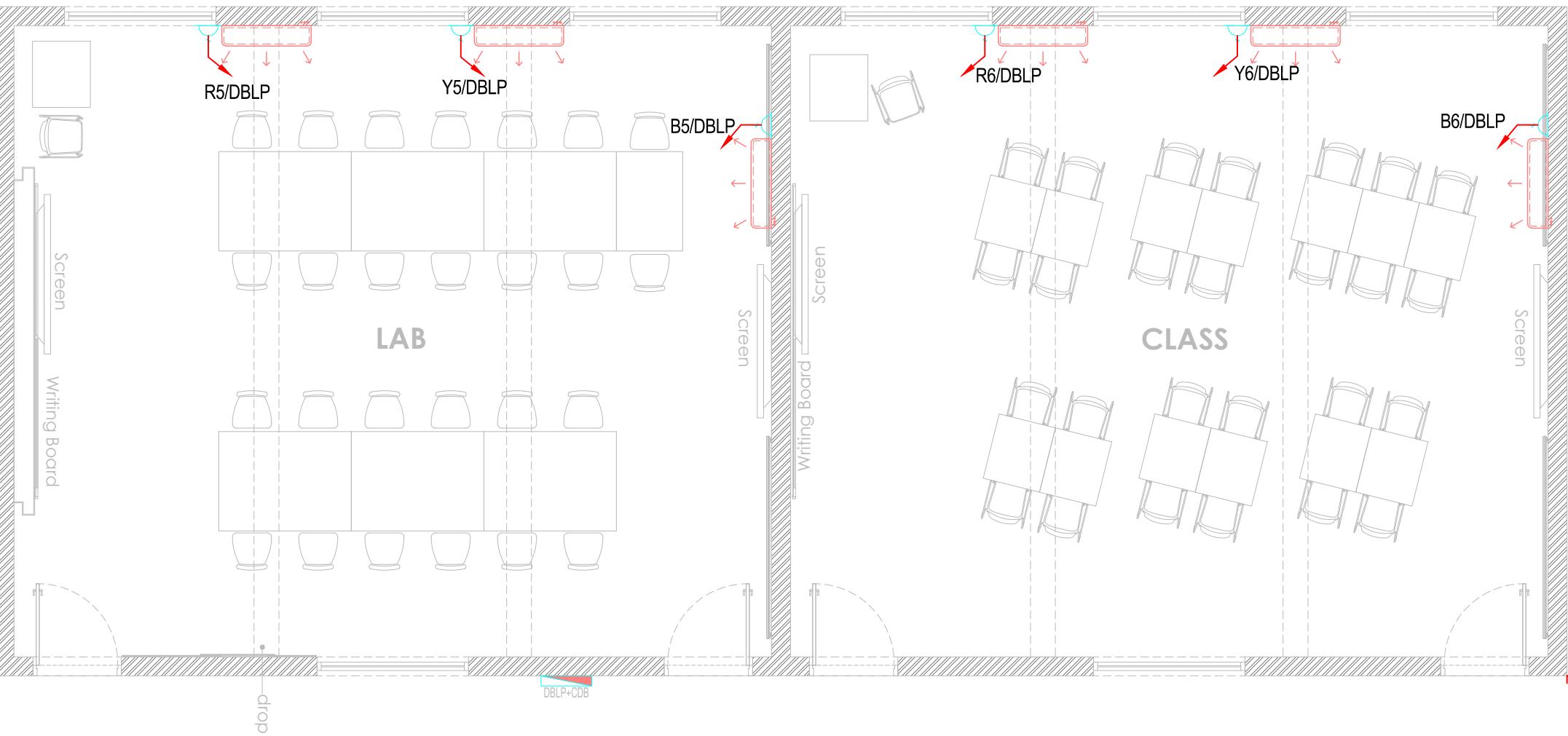
## DATA AND HDMI LAYOUT PLAN

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEN DAWOOD	Scale	3/16" = 1'-0"
Approved		Job No.	
Sheet size	Drawing No.	Rev. No.	
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00	03-12-2025	Issued For Review	J.M	M.D

Rev	Date	Description	Drn By	Ckd By
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DISCIPLINE		STATUS
ELECTRICAL		REVIEW

Drawing Title

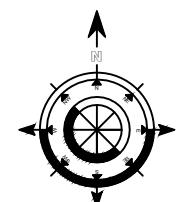
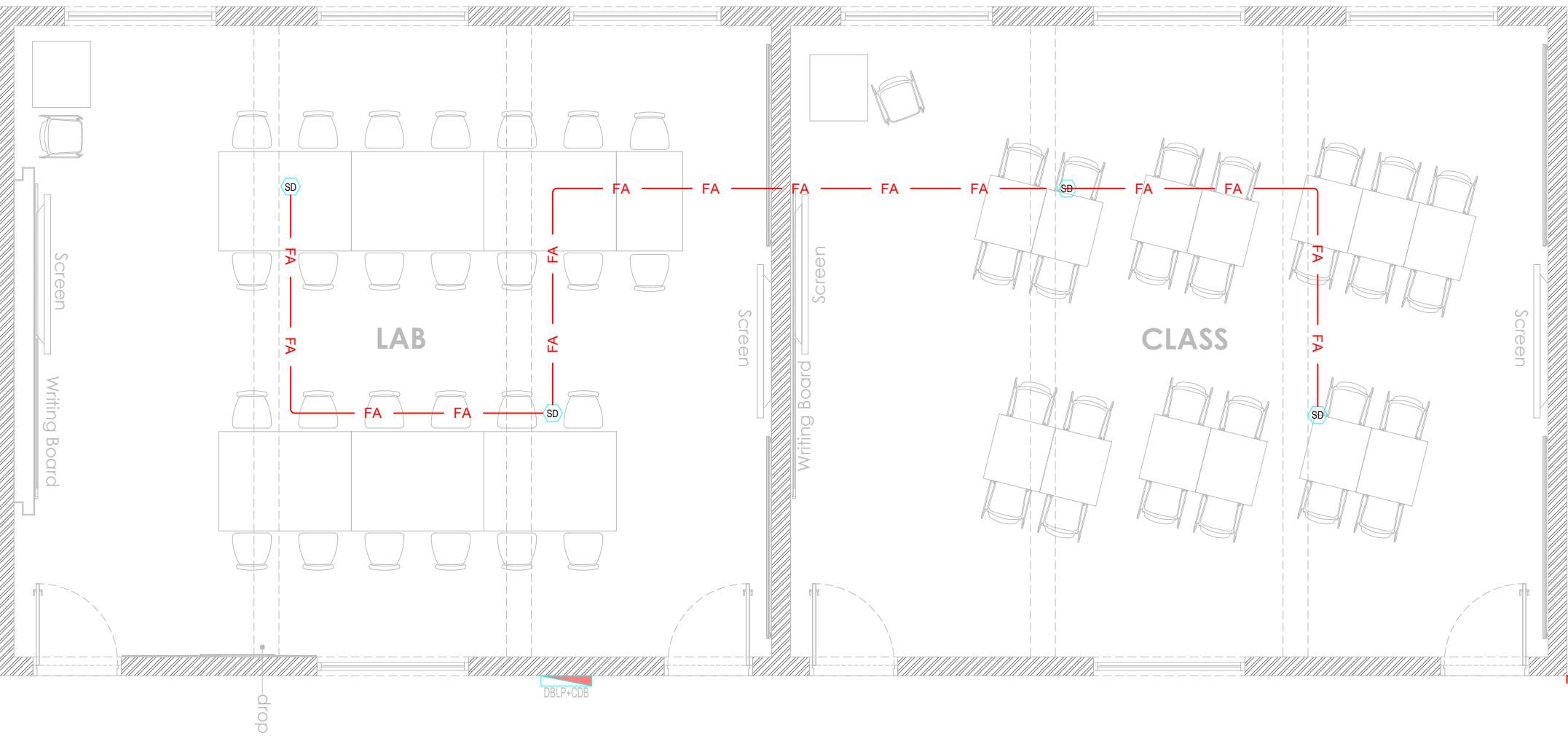
## HVAC POWER LAYOUT PLAN

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Approved		Job No.	
Sheet size		Drawing No.	Rev. No.
		BC_DIK-EL-10	00



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00	03-12-2025	Issued For Review	J.M	M.D

Rev	Date	Description	Drn By	Ckd By
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DISCIPLINE		STATUS
ELECTRICAL		REVIEW

Drawing Title

## FIRE ALARM LAYOUT PLAN

Drawn	JAWAD MIRZA	Date	DEC 2025
Checked	MOBEEN DAWOOD	Scale	3/16" = 1'-0"
Approved		Job No.	
Sheet size	Drawing No.	Rev. No.	

	BC_DIK-EL-12	00
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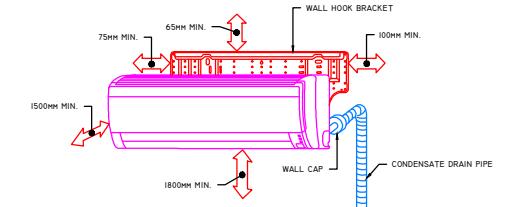
**ANNEX-04**

**BRITISH COUNCIL  
SPOKE-D.I KHAN**

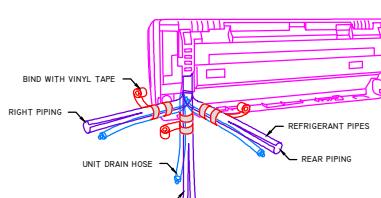
**HVAC DRAWINGS PACKAGE  
(ISSED FOR TENDER)**



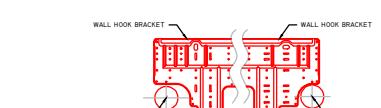
- NO DIMENSIONS ARE TO BE SCALED.
- ALL DIMENSIONS ARE TO BE CHECKED AND CO-RELATED WITH OTHER DRAWINGS PRIOR TO WORK COMMENCING ON SITE.
- DRAWINGS TO BE READ IN CONJUNCTION WITH WRITTEN SPECIFICATION IN THE EVENT OF ANY DISPARITY BETWEEN DRAWINGS AND WRITTEN SPECIFICATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE ENGINEER.
- CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM SPECIALIST SUB CONTRACTOR FOR ALL THE SPECIAL ITEMS.



INDOOR UNIT INSTALLATION DIMENSIONS



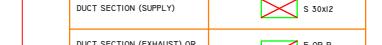
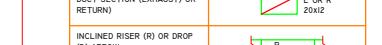
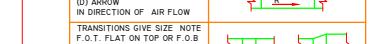
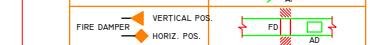
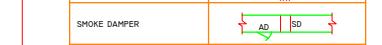
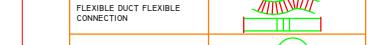
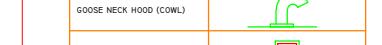
INDOOR UNIT PIPING DIRECTION



CUTTING THE HOLE IN THE WALL FOR THE CONNECTING PIPING

30 TYPICAL WALL MOUNTED SPLIT UNIT INSTALLATION DETAILS

<b>GENERAL NOTES</b>	
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL SERVICES.	
2. ALL DUCT, GRILLE AND PIPE SIZES ARE MM UNLESS OTHERWISE SHOWN.	
3. ALL CONDENSATE DRAINS FROM EACH AHU/FCU WHETHER SHOWN ON DRAWING OR NOT SHALL RUN WITH A FALL TO THE NEAREST WASTE STACK OR FLOOR DRAIN VIA U-TRAPS.	
4. ALL DUCT CONNECTIONS TO A/C UNITS SHALL BE OF THE FLEXIBLE RUBBERIZED TYPE, DUCT CONNECTION	
5. ACCESS PANELS TO BE PROVIDED WITHIN FALSE CEILING AT ALL LOCATIONS OF FCU VALVES, FD, VCD, NRD & MOD. CONTRACTOR SHALL COORDINATE WITH ALL M/E/P SERVICES & FALSE CEILING LAYOUT TO ENSURE THAT COMMON ACCESS PANELS TO BE PROVIDED FOR MAINTENANCE.	
6. FIRE DAMPERS (FD) SHALL BE PROVIDED WHERE DUCTS CROSS FIRE ZONES AS IDENTIFIED BY THE ARCHITECT. ALL FD'S TO HAVE BLADES OUT OF THE AIR STREAM WHETHER SHOWN ON THE LAYOUT OR NOT. ALL FD'S RATED ALL FD'S TO HAVE BLADES OUT OF THE AIR STREAM WHETHER SHOWN ON THE LAYOUT OR NOT.	
7. SUITABLE APPROVED SLEEVES SHALL BE PROVIDED WHERE BOTH INSULATED AND NON INSULATED DUCTS PASS THROUGH WALLS/FLOORS ETC. ALL GAPES TO BE SEALED WITH SPECIFIED AND APPROVED TYPE MATERIAL.	
8. ALL CHILLED WATER VALVES ETC. IN PLANT ROOMS, RISER, SHAFTS AND EXTERNAL SHALL BE INSULATED IN APPROVED ACCESSIBLE VALVE BOXES WITH QUICK RELEASE FASTENINGS.	
9. CHILLED WATER PIPE SUPPORTS SHALL NOT BE PENETRATED THROUGH INSULATION VAPOR SEALS.	
10. ALL DUCTWORK WITHIN 3000 MM OF FAN COIL UNITS (AHU/OUTLETS) SHALL BE ACOUSTICALLY LINED.	
11. BACK DRAFT DAMPER (BDD) SHALL BE PROVIDED AFTER EACH DUCTED EXTRACT FAN.	
12. CONTRACTOR SHALL SUBMIT PERFORMANCE TEST CERTIFICATE FOR EACH CHILLER TO CONFIRM THAT IT CAN PRODUCE THE SCHEDULED DUTY AT THE SPECIFIED CONDITIONS.	
13. VCD'S SHALL BE PROVIDED AT ALL A/C DUCT BRANCHES, WHETHER SHOWN ON DRAWINGS OR NOT.	
14. POWER FACTOR CAPACITORS SHALL BE PROVIDED TO ALL ELECTRICAL MOTORS OF MECHANICAL EQUIPMENT (PUMPS, FANS, A/C UNITS ETC.)	
15. ALL EXPOSED CHILLED WATER PIPES AND DUCTS ON ROOF AND IN PUMP/PLANT ROOM SHALL HAVE 26 SWG ALUMINUM CLADDING ON TOP OF THE INSULATION.	
16. ALL SUPPLY AND EXTRACT DIFFUSERS/GRILLES SHALL HAVE IN BUILT T.C.D. FOR FINAL FINE TUNING.	
17. TOILET/PANTRY DOORS SHALL HAVE 20MM UNDERCUTS FOR AIR CIRCULATION, DOOR GRILLES SHALL NOT BE USED UNLESS OTHERWISE STATED/INDICATED.	
18. AIRTIGHT PARTITIONS SHALL BE PROVIDED WHERE REQUIRED ABOVE FALSE CEILING TO SEGREGATE THE RETURN AIR FOR ALL AHU's/ FCU's.	
19. ALL THERMOSTATS IN PUBLIC & COMMON AREA SHALL BE HOUSED IN LOCKABLE GLASS ENCLOSURE.	
20. ALL OPENING FOR RETURN AIR PATH ABOVE FALSE CEILING SHALL BE PROVIDED WITH FD, WHERE A/C SUPPLY DUCT HAS A FD.	
21. ANY DISCREPANCIES ARE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO FINALIZATION OF CONTRACT, ANY VARIATION DUE TO NOT DOING SO WILL NOT BE ENTERTAINED.	
22. SHOWN LOCATION OF TEMPERATURE CONTROLLERS/THERMOSTATS ARE TENTATIVE FINAL LOCATION SHALL BE COORDINATE WITH ARCHITECTS DURING CONSTRUCTION STAGE.	
23. ALL FRESH AIR AND GENERAL EXTRACT OUTLET SHALL BE TERMINATED ADJACENT TO EACH FCU/ AHU WITH VCD AND WIRE MESH OF STAINLESS STEEL.	
24. CHW PIPES AT ROOF TO RUN AT 2134MM ABOVE ROOF LEVEL SUBJECT TO ARCHITECT'S APPROVAL.	
25. FLEXIBLE CONNECTOR / EXPANSION BELLows SHALL BE PROVIDED WHERE A/C DUCTS/CHW PIPE CROSS BUILDING EXPANSION JOINT.	
26. ALL EXPOSED ANGLE SUPPORTS FOR DUCTS/CHILLED WATER PIPES SHALL BE PAINTED AS SPECIFIED COLOR SUBJECT TO ARCH'S APPROVAL.	
27. FINAL LOCATION OF FAL & EAL TO BE COORDINATE WITH ARCH'S AT SITE. COLOR SUBJECT TO ARCH'S APPROVAL.	
28. WHERE MORE THAN ONE SERVICE (ELECTRICAL CABLES, DUCT, CH. WATER PIPES) IS ROUTED THROUGH THE SAME AREA, THEY SHALL BE SUPPORTED BY STRUCTURAL FRAME SUPPORT WITH SERVICES STACKED ONE ABOVE THE OTHER.	
29. ALL SUPPLY AIR DIFFUSER GRILLE/PLUMM. SHALL BE INTERNALLY LINED AND PAINTED BLACK INTERNALLY.	
30. CONTRACTOR TO ENSURE THAT THE SPECIFIED ROOM NOISE LEVELS (N0) IS MAINTAINED. CONTRACTOR SHALL INCLUDE ATTENUATORS, ACOUSTIC INSULATION TO DUCTS, INSULATION OF AHU/PLANT ROOM, ETC TO ACHIEVE THE SPECIFIED NOISE LEVEL.	
31. CONTRACTOR SHALL FORWARD ACTUAL PHYSICAL DIMENSIONS AND WEIGHT OF EQUIPMENT AFTER APPROVAL FOR STRUCTURAL ENGINEER.	
32. CONTRACTOR TO COORDINATE WITH STRUCTURAL DRAWINGS FOR OPENINGS AND PENETRATIONS. SUBMIT BUILDING WORK SHOP DRAWING FOR STRUCTURAL ENGINEER APPROVAL ANY OPENING REQUIRED OTHER THAN THAT SHOWN ON STRUCTURAL DRAWING SHALL BE APPROVED BY STRUCTURAL ENGINEER.	
33. ALL SLAB SUSPENDED SUPPORT LOCATION SHALL BE SUBMITTED FOR APPROVAL. NO DRILLING OR FIXING OF SUPPORT FROM OR ON SLAB SHALL BE CARRIED OUT WITH OUT THE STRUCTURAL ENGINEERS APPROVAL.	
34. ACOUSTIC MATS SHALL BE PROVIDED ON FALSE CEILING TILES BELOW FAN COIL UNITS IN ORDER TO ACHIEVE THE SPECIFIED NOISE LEVELS.	
35. PROVIDE ALL HANGING AND SUPPORTING SYSTEM FOR CHILLED WATER AND COOLING WATER CAPABLE TO WITH STAND AGAINST EARTH QUAKE AT RECTOR SCALE 8.0. THE CONTRACTOR SHALL SUBMIT THE RELATED SHOP DRAWING ACCORDINGLY FOR CONSULTANT'S APPROVAL.	
<b>GENERAL NOTES</b>	
SCALE: N.T.S	

<b>SYMBOL MEANING</b>	<b>SYMBOL</b>
POINT OF CHANGE IN DUCT CONSTRUCTION (BY STATIC PRESSURE CLASS)	
DUCT (1ST FIGURE SIDE SHOWN 2ND FIGURE, SIDE NOT SHOWN)	
ACOUSTICAL LINING DUCT DIMENSIONS FOR NET FREE AREA	
DIRECTION OF FLOW	
DUCT SECTION (SUPPLY)	
DUCT SECTION (EXHAUST) OR RETURN	
INCLINED RISER (R) OR DROP (D) ARROW IN DIRECTION OF AIR FLOW	
TRANSITIONS GIVE SIZE. NOTE F.O.T. FLAT ON TOP OR F.O.B. FLAT ON BOTTOM IF APPLICABLE	
STANDARD BRANCH FOR SUPPLY & RETURN (NO SPLITTER)	
VOLUME DAMPER MANUAL OPERATION	
AUTOMATIC DAMPER'S MANUAL OPERATION	
ACCESS DOOR (AD) OR PANEL (AP)	
FIRE DAMPER - VERTICAL POS. HORIZ. POS.	
SMOKE DAMPER	
CEILING DAMPER OR ALTERNATE PROTECTION FOR FIRE RATED CLG	
TURNING VANES	
FLEXIBLE DUCT FLEXIBLE CONNECTION	
GOOSE NECK HOOD (COWL)	
BACK DRAFT DAMPER	
WALL MOUNTED SPLIT UNIT	

02 SYMBOLS FOR VENTILATION &amp; AIR CONDITIONING SYSTEM

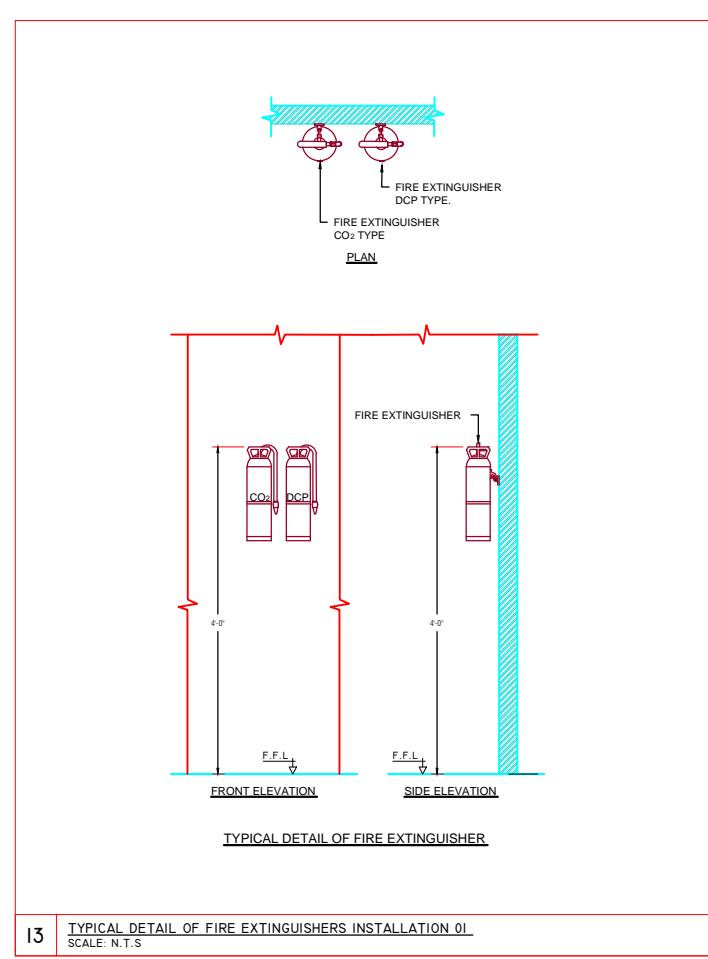
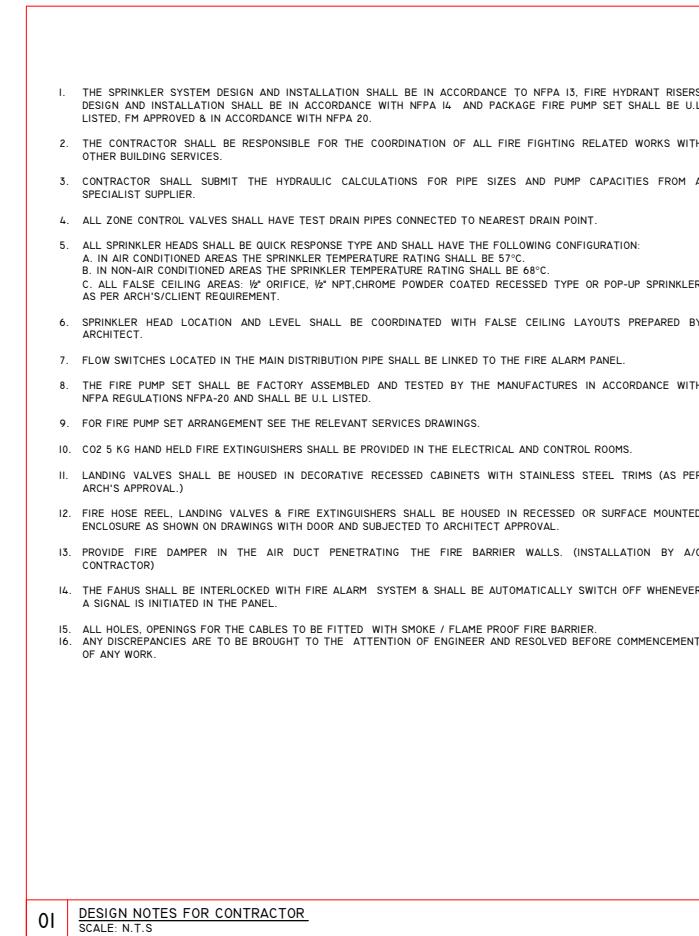
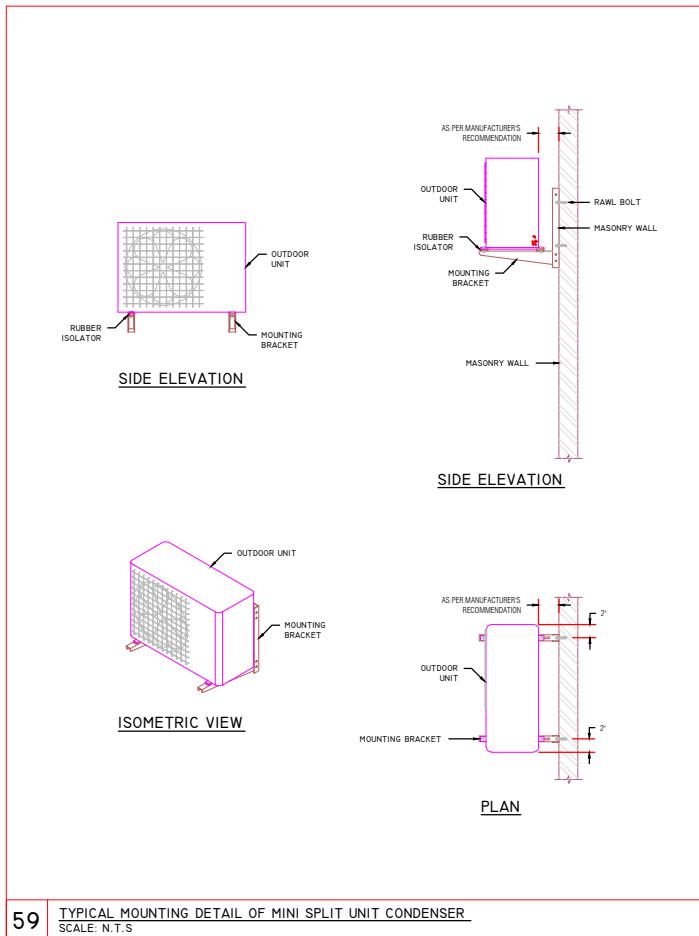
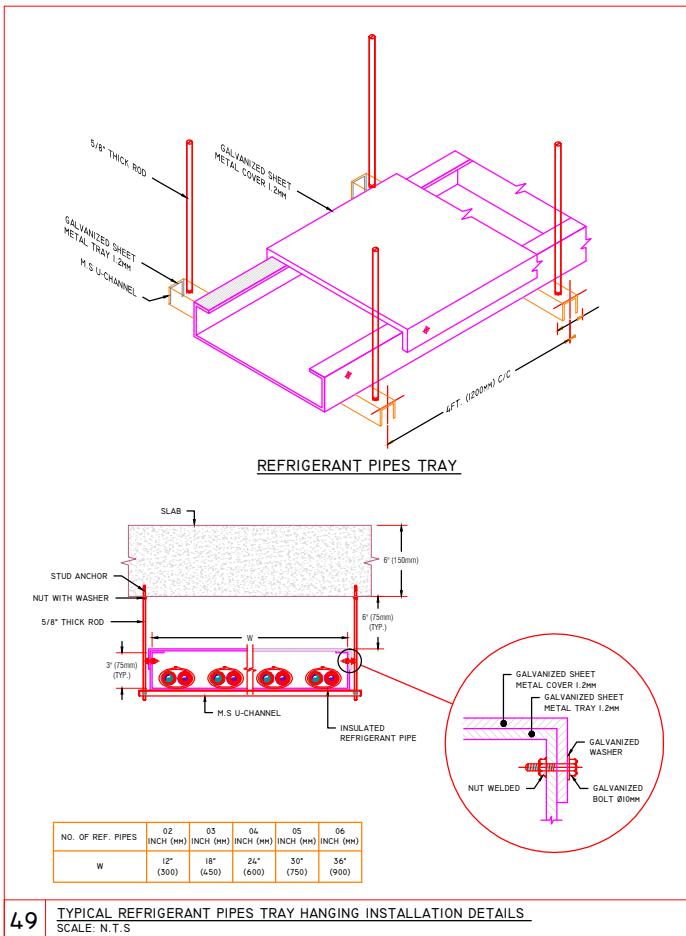
SCALE: N.T.S

30 TYPICAL WALL MOUNTED SPLIT UNIT INSTALLATION DETAILS

SCALE: N.T.S

Rev	Date	Description	Drn By	Ckd By
DISCIPLINE				STATUS
INTERIOR				
ISSUED FOR TENDER DRAWING				
Drawing Title				
LEGEND & DETAILS				
AIR CONDITIONING & FIRE SUPPRESSION SERVICES				
Drawn	MF	Date	Nov 2025	
Checked	AS	Scale	1:60	
Approved	MB	Job No.	MBA/279/25	
Sheet size	Drawing No.		Rev. No.	
A3				

1. NO DIMENSIONS ARE TO BE SCALED.
2. ALL DIMENSIONS ARE TO BE CHECKED AND CO-RELATED WITH OTHER DRAWINGS PRIOR TO WORK COMMENCING ON SITE.
3. DRAWINGS TO BE READ IN CONJUNCTION WITH WRITTEN SPECIFICATION IN THE EVENT OF ANY DISPARITY BETWEEN DRAWINGS AND WRITTEN SPECIFICATION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE ENGINEER.
4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM SPECIALIST SUB CONTRACTOR FOR ALL THE SPECIAL ITEMS.



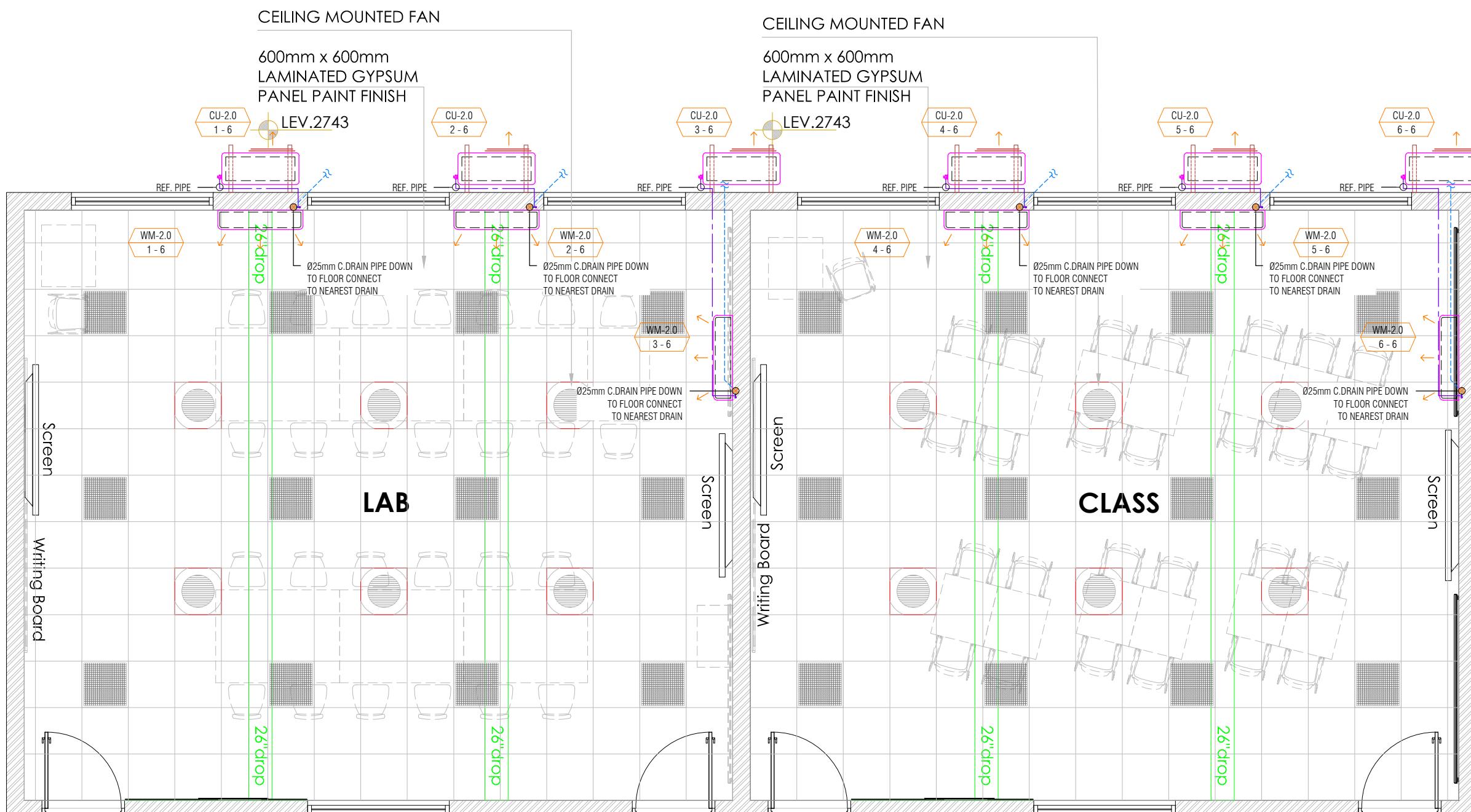
Rev	Date	Description	Drn By	Ckd By
DISCIPLINE			STATUS	
INTERIOR			ISSUED FOR TENDER DRAWING	
Drawing Title			LEGEND & DETAILS	
AIR CONDITIONING & FIRE SUPPRESSION SERVICES			MF	Nov 2025
Drawn	MF	Date	Nov 2025	
Checked	AS	Scale	1:60	
Approved	MB	Job No.	MBA/279/25	
Sheet size	Drawing No.		Rev. No.	
A3				

ID CONSULTANT	ARCHITECTS
	<b>SURROUND</b>
Office Suite 102, 10-C Shehcar Commercial Lane 4, 2nd Floor, 2nd Street, H-12, Islamabad Landline: +92135172438 • +92135172439 Email: surroundarchitects@gmail.com Logon to: www.surrounddesignstudio.com.pk	
<b>STRUCTURAL CONSULTANT</b>  <b>A.A. TECHNO ENGINEERS</b> M&P & I.T. CONSULTANTS 1st Floor, Plot C2C, Khayaban-e-saadi, #1, D.H.A. Phase-VII, Karachi (+9221) 3588-5740   info@aatechneengineers.com	
<b>HVAC, MECHANICAL &amp; PLUMBING CONSULTANTS</b>  <b>MB ASSOCIATES</b> HOUSE NO. 71/A, STREET 19, MUSLIMABAD, KARACHI. 00-021-33380396 info1@mbsassociates@gmail.com info@mbsassociates.com.pk	

<b>NOTES</b>
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4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM SPECIALIST SUB CONTRACTOR FOR ALL THE SPECIAL ITEMS.

<b>KEY PLAN</b>

Rev	Date	Description	Drn By	Ckd By			
DISCIPLINE	STATUS						
INTERIOR	ISSUED FOR TENDER DRAWING						
Drawing Title							
<b>FLOOR PLAN</b> <b>AIR CONDITIONING SERVICES</b>							
Drawn	MF	Date	Nov 2025				
Checked	AS	Scale	1:60				
Approved	MB	Job No.	MBA/279/25				
Sheet size	Drawing No.			Rev. No.			
A3							



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**4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM SPECIALIST SUB CONTRACTOR FOR ALL THE SPECIAL ITEMS.**

## KEY PLAN

# FLOOR PLAN

## FIRE SUPPRESSION SERVICES

Drawn	MF	Date	Nov 2025
Checked	AS	Scale	1:60
Approved	MB	Job No.	MBA/279/25
Sheet size		Drawing No.	Rev. No.
A3			

SCHEDULE OF DX SPLIT AC UNITS (REVERSIBLE UNITS - HEAT & COOL)			
Description	Unit	Qty./Specification	
<b>General</b>			
Quantity of Units	Nos.	3	3
Installed Location / Area Served	-	Computer Lab	Classroom
Ambient Temperature (DB / WB)	°F	109.3 / 78.6	109.3 / 78.6
Nominal Unit Capacity	Tons	2.00	2.00
Total Load (At Design Condition)	Btu/h	20,400	20,400
Sensible Load (At Design Condition)	Btu/h	16,320	16,320
Sensible Heat Ratio	-	0.80	0.80
Min. Efficiency (ASHRAE 90.1 - 2010 complied)	EER	< 3.6 EER	< 3.6 EER
<b>Indoor (Evaporative) Unit</b>			
Unit Tag No.	-	WM-2.0	WM-2.0
Type of unit	-	Wall Mounted	Wall Mounted
Fresh Air Flow	cfm	-	-
Supply Air Flow (at Mid Speed)	cfm	Standard	Standard
External Static Pressure	in. w.c.	Standard	Standard
Entering Air Temperature (DB / WB)	°F	75 / 62.5	75 / 62.5
Leaving/Supply Air Temperature (DB / WB)	°F	52 / 51.5	52 / 51.5
Evaporator Coil/Fins	-	Copper/Al	Copper/Al
Filters Type	-	Standard	Standard
<b>Outdoor (Condensing) Unit</b>			
Unit Tag No.	-	CU-2.0	CU-2.0
Compressor	-	Rotary/Scroll (T3)	Rotary/Scroll (T3)
Condensor Coil/Fins	-	Copper/Al	Copper/Al
Anti-corrosion / Marine Coating	-	Yes	Yes
Configuration	-	Side Discharge (Inverter Type)	Side Discharge (Inverter Type)
Unit Location	-	Hanging Outside	Hanging Outside
<b>Electrical Characteristics</b>			
Power Input (To be Confirmed by Supplier)	KW	2.40	2.40
Elec. Charateristics (To be Confirmed by Supplier)	V/Ø/Hz	230/1/50	230/1/50

**Notes:**

1. Unit shall be selected at Outdoor Condition of 40 - 45 °C.
2. Units Nominal Capacities are based on Standard Conditions i.e. 27/19°C DB/WB for Indoor Unit and 35°C Ambient Temperature.
3. Unit shall be Pre-Factory Refrigerant Gas Charged.
4. Indoor Units shall be selected at Medium Speed.
5. Refrigerant shall be R-410a or equivalent.
6. All Ducted & Cassette Units Provide with Built-in Drain Pump.
7. Provide Compliance Sheet & Highlight Selected Units in Submittals.