

# DIAL\_T1\_DILLI STREAT M&E DRAWINGS

ALL DIMENSIONS MUST BE CHECKED ON SITE.  
INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

NOTES:  
IRRESPECTIVE OF THE DRAWING(S), IT IS THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY THAT SHALL BE EXECUTED AND COMPLETED IN ACCORDANCE TO THE SPECIFICATION, DRAWING(S) AS WELL AS REQUIREMENT. THE SAID DRAWING(S) SHALL NOT RELIEVE CONTRACTOR FROM ANY OBLIGATION UNDER THE CONTRACT AND IN PARTICULAR FROM ITS RESPONSIBILITY IN RELATION TO THE INSTALLATION MATERIALS AND WORKMANSHIP AND WHERE RELEVANT FROM A DUTY TO SEEK APPROVAL FROM THE COMPETENT AUTHORITY.

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TOO	09.12.23	ISSUED FOR TENDER	ST	MB
REV	DATE	DESCRIPTION	DRN	CHK



PROJECT  
**DILLI STREAT  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI**

DRAWING TITLE  
**TITLE SHEET**

SCALE NTS      DATE 09.01.24      DRAWN ST      A3 SHEET

STATUS  
**TENDER**

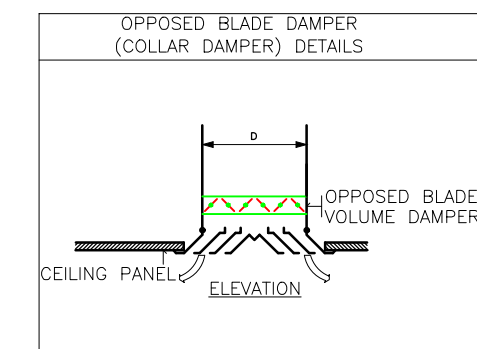
ORG	PROJECT NO	DRAWING TYPE	NUMBER	REV
TFS	0000	GEN	G101	T00

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HVAC SYSTEM LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AIR HANDLING UNIT - AHU		SUPPLY AIR DUCT WITH 19MM NITRILE RUBBER INSULATION - SAD
	KITCHEN EXHAUST HOOD - KEH		RETURN AIR DUCT - RAD
	SUPPLY AIR ROUND DIFFUSER - SD		ACOUSTIC INSULATION
	RETURN AIR GRILLE - RAG		ACCESS DOOR FOR DUCTS - AD

BOD : BOTTOM OF DUCT.  
TOD : TOP OF DUCT.  
BOE : BOTTOM OF EQUIPMENT.  
BOA : BOTTOM OF AIR TERMINAL.  
CWS : COLD WATER SUPPLY.  
AHU : AIR HANDLING UNIT.  
AWU : AIR WASHER UNIT.  
C.H : CEILING HEIGHT.



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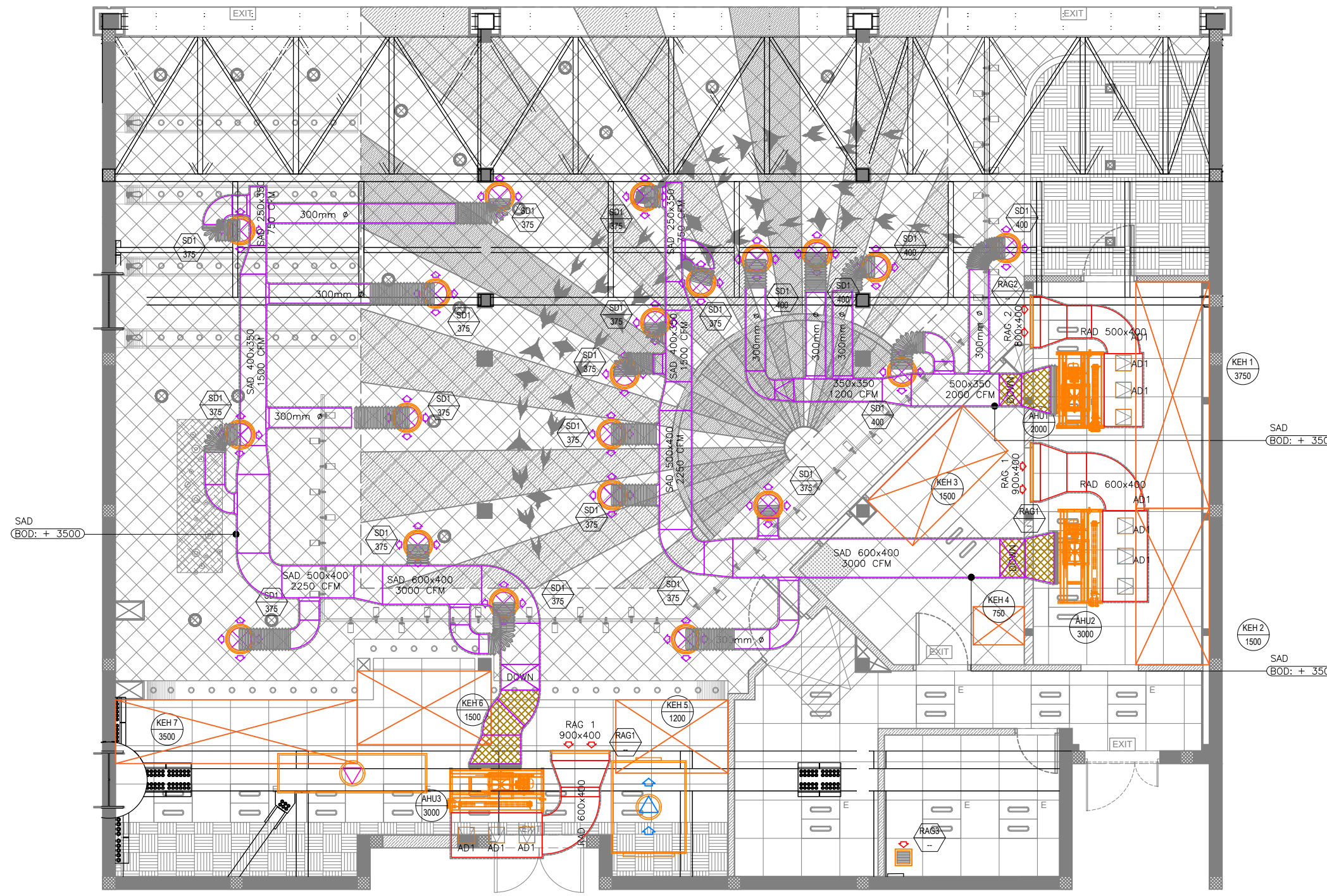
PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**HVAC SUPPLY AIR DUCTING  
LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 HVAC M101T00**



**01 HVAC SUPPLY AIR DUCTING LAYOUT**  
M101 1:75

AIR TERMINAL SCHEDULE - DIFFUSERS						
TAG	SERVICE	NECK SIZE (mm)	FACE SIZE (mm)	PATTERN	MATERIAL	REMARKS
SD1	SUPPLY	350mm $\phi$	600mm $\phi$	4 WAY	ALUMINIUM	ROUND CEILING DIFFUSER
RAG 1	RETURN	900x400	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30° DEFLECTION
RAG 2	RETURN	800x400	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30° DEFLECTION
RAG 3	RETURN	200x200	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30° DEFLECTION

NOTE:  
ALL AIR TERMINALS COLOUR & FINISH IS TO BE ADVISED BY ARCHITECT.

ACCESS DOOR DETAILS		
TAG	HEIGHT	WIDTH
AD1	250 mm	250 mm

NOTE:  
• THE DUCT ACCESS DOOR SHOULD HAVE CONTINUOUS HINGES AND MANUAL CAM LOCKS.  
• ASSURE AIR-TIGHT DOOR CLOSURE WITH SUITABLE GASKET TO AVOID AIR LEAKAGE.

HVAC EQUIPMENT SCHEDULE				
TAG	EQP TYPE	COOLING CAPACITY (TR)	AIR FLOW (CFM)	WATER FLOW (GPM)
AHU 1	DUCTED HIGH ESP	5.0	2000	12.0
AHU 2	DUCTED HIGH ESP	7.5	3000	18.0
AHU 3	DUCTED MEDIUM ESP	7.5	3000	18.0
KEF 1	DUCTED EXHAUST FAN	--	5250	--
KEF 2	DUCTED EXHAUST FAN	--	3450	--
KEF 3	DUCTED EXHAUST FAN	--	5000	--
ESP 1	DRY SCRUBBER	--	5250	--
ESP 2	DRY SCRUBBER	--	3450	--
ESP 3	DRY SCRUBBER	--	5000	--
AWU 1	DUCTED AIR WASHER	--	4200	--
AWU 2	DUCTED AIR WASHER	--	2760	--
AWU 3	DUCTED AIR WASHER	--	4000	--

NOTE:  
AIRPORT TO PROVIDE CHILL WATER SUPPLY OF 48 GPM TO LOCATION AS INDICATED IN THE DRAWING.  
(ASSUMED CHILL WATER SUPPLY TEMPERATURE 6°C, & CHILL WATER RETURN TEMPERATURE 12°C)



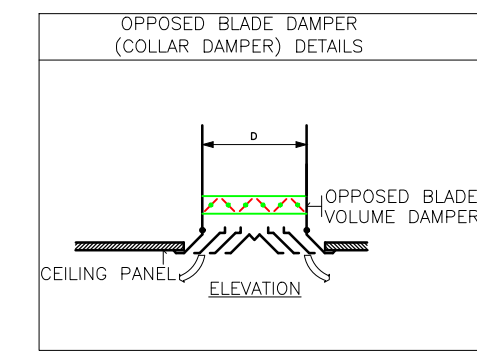
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  - THIS IS A SCHEMATIC/ CONCEPTUAL DRAWING ONLY TO ARTICULATE THE DESIGN INTENT. POST RECEIPT OF DETAILED SURVEY\*\*, THE DRAWINGS WILL BE AMENDED/ DETAILED FURTHER.
  - ALL AHU PIPELINES TO BE CONNECTED WITH AIRPORT SPECIFIED BTU METER.
  - ALL HVAC EQUIPMENT SHOULD BE INTEGRATED WITH FIRE ALARM SYSTEM, SO THAT IT MAY GET SWITCHED OFF IN CASE OF ANY FIRE INCIDENT. FOR MORE DETAILS PLEASE CHECK FIRE ALARM DRAWING.
  - RETURN AIR PATH FROM RETURN DIFFUSER/GRILLE TO AHU IS ABOVE THE CEILING VOID.
  - ALL AIR TERMINALS SHOULD BE CONNECTED TO THE SUPPLY/EXTRACT AIR DUCTS THROUGH AN OPPOSED BLADE DAMPER (OBD).
  - THE CONTRACTOR TO ENSURE THAT THE FLEXIBLE CONNECTION LENGTH SHOULD NOT BE MORE THAN 1.5 METER.
  - THE CONTRACTOR TO ENSURE THE INSTALLATION AND COMMISSIONING SHALL BE DONE AS PER DIAL'S APPROVED METHODOLOGY.
  - THE CONTRACTOR TO ENSURE DUCTING SHALL BE BY 655, GALVANIZED IRON SHEET TO BE USED FOR ALL DUCTING WORKS.
  - THE CONTRACTOR TO ENSURE THERMAL INSULATION ON KITCHEN EXHAUST DUCTING SHALL BE 80 MM THICK ALUMINIUM FOIL-FACED RESIN-BONDED FIBRE GLASS WOOL OF DENSITY NOT LESS THAN 48 KG/M<sup>3</sup>.
  - THE CONTRACTOR TO ENSURE THERMAL INSULATION ON FRESH AIR, SUPPLY AIR AND RETURN AIR SHALL BE 19MM THICK CLOSED CELL ANTIMICROBIAL CLASS "O" BS 476 AND PART 6 & 7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/ (M K)) AT 0°C.
  - THE CONTRACTOR IS TO ENSURE SUPPORTING OF DUCTING TO BE DONE WITH USING ANGLE 50X 50 X 5MM AND THE ROD OF SIZE MINIMUM 10 MM DIA/ AS PER DUCT SIZE.
  - APPROPRIATE NUMBER OF TRAP DOORS SHALL BE PROVIDED IN KITCHEN EXHAUST DUCTING FOR OIL/GREASE CLEANING PURPOSE.

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HVAC SYSTEM LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	KITCHEN EXHAUST FAN - KEF		MAKE-UP AIR DUCT WITH 19MM NITRILE RUBBER INSULATION - MUAD
	ELECTROSTATIC PRECIPITATOR - ESP		KITCHEN EXHAUST AIR DUCT WITH 50MM FIRE BOARD INSULATION - KED
	AIR WASHER UNIT - AWU		EXISTING AIR DUCT
	KITCHEN EXHAUST HOOD - KEH		MAKE UP AIR GRILLE - MAG 1WAY & 2 WAY GRILLE
	ACCESS DOOR FOR DUCTS - AD		

BOD : BOTTOM OF DUCT.  
TOD : TOP OF DUCT.  
BOE : BOTTOM OF EQUIPMENT.  
BOA : BOTTOM OF AIR TERMINAL.  
CWS : COLD WATER SUPPLY.  
AHU : AIR HANDLING UNIT.  
AWU : AIR WASHER UNIT.  
C.H : CEILING HEIGHT.



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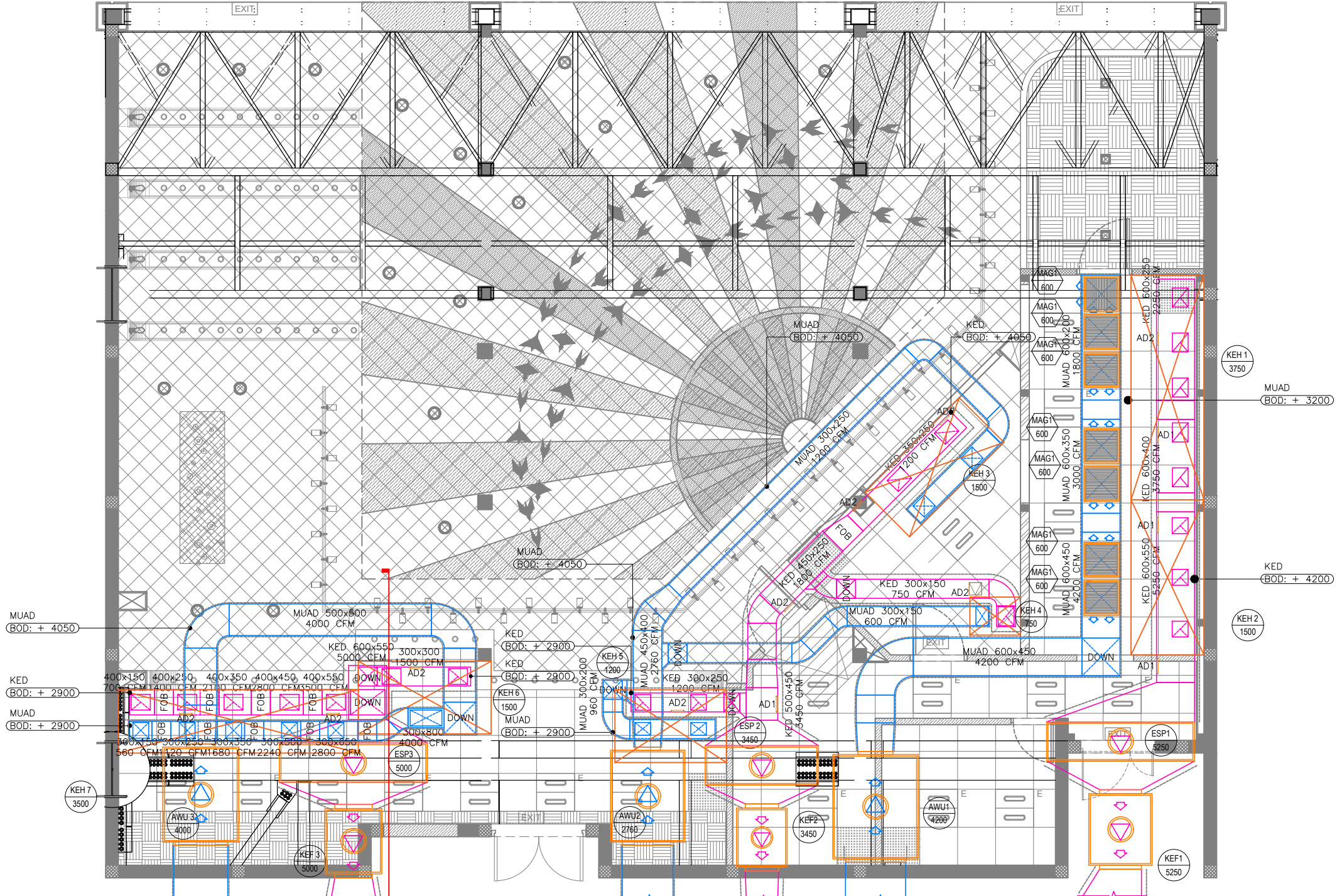
PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**HVAC KITCHEN EXHAUST &  
MAKE UP AIR DUCTING  
LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 HVAC M102T00**



KITCHEN EXHAUST DUCT & MAKE UP AIR DUCT TERMINATION TO BE CONNECTED TO EXISTING AIRPORT DUCTS. FINAL POSITION TO BE FIELD VERIFIED.

KITCHEN EXHAUST DUCT & MAKE UP AIR DUCT TERMINATION TO BE CONNECTED TO EXISTING AIRPORT DUCTS. FINAL POSITION TO BE FIELD VERIFIED.

KITCHEN EXHAUST DUCT & MAKE UP AIR DUCT TERMINATION TO BE CONNECTED TO EXISTING AIRPORT DUCTS. FINAL POSITION TO BE FIELD VERIFIED.

**01 HVAC KITCHEN EXHAUST & MAKE UP AIR DUCTING LAYOUT**  
M102 1:75

AIR TERMINAL SCHEDULE - DIFFUSERS						
TAG	SERVICE	NECK SIZE (mm)	FACE SIZE (mm)	PATTERN	MATERIAL	REMARKS
MAG 1	SUPPLY	500x500	--	1 WAY	ALUMINIUM	SQUARE CEILING GRILLE - 30° DEFLECTION

NOTE:  
ALL AIR TERMINALS COLOUR & FINISH IS TO BE ADVISED BY ARCHITECT.

ACCESS DOOR DETAILS		
TAG	HEIGHT	WIDTH
AD1	250 mm	250 mm
AD2	200 mm	200 mm

NOTE:  
• THE DUCT ACCESS DOOR SHOULD HAVE CONTINUOUS HINGES AND MANUAL CAM LOCKS.  
• ASSURE AIR-TIGHT DOOR CLOSURE WITH SUITABLE GASKET TO AVOID AIR LEAKAGE.

HVAC EQUIPMENT SCHEDULE				
TAG	EQP TYPE	COOLING CAPACITY (TR)	AIR FLOW (CFM)	WATER FLOW (GPM)
AHU 1	DUCTED HIGH ESP	5.0	2000	12.0
AHU 2	DUCTED HIGH ESP	7.5	3000	18.0
AHU 3	DUCTED MEDIUM ESP	7.5	3000	18.0
KEF 1	DUCTED EXHAUST FAN	--	5250	--
KEF 2	DUCTED EXHAUST FAN	--	3450	--
KEF 3	DUCTED EXHAUST FAN	--	5000	--
ESP 1	DRY SCRUBBER	--	5250	--
ESP 2	DRY SCRUBBER	--	3450	--
ESP 3	DRY SCRUBBER	--	5000	--
AWU 1	DUCTED AIR WASHER	--	4200	--
AWU 2	DUCTED AIR WASHER	--	2760	--
AWU 3	DUCTED AIR WASHER	--	4000	--

NOTE:  
AIRPORT TO PROVIDE CHILL WATER SUPPLY OF 48 GPM TO LOCATION AS INDICATED IN THE DRAWING.  
(ASSUMED CHILL WATER SUPPLY TEMPERATURE 6°C, & CHILL WATER RETURN TEMPERATURE 12°C)

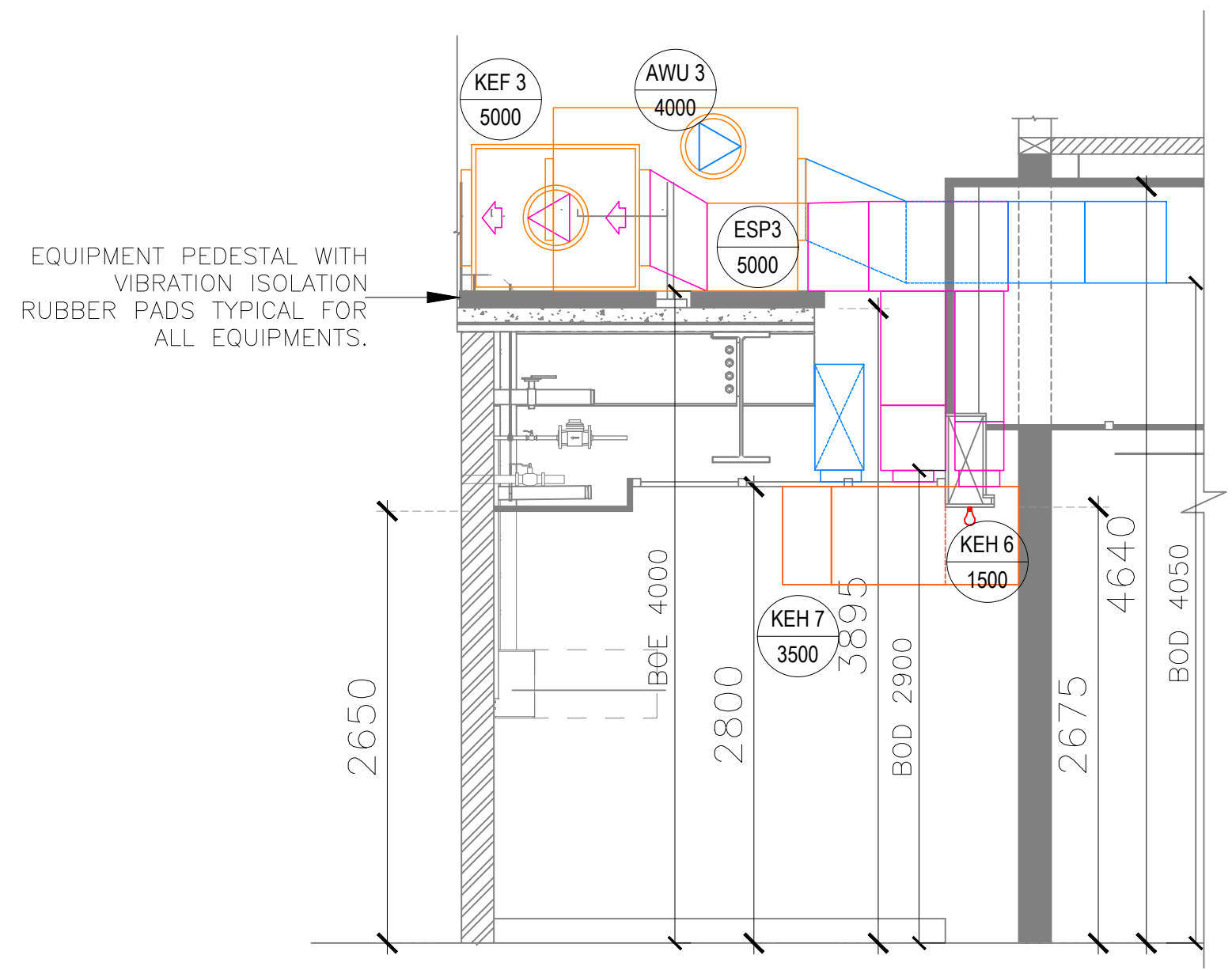


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- ALL AHU PIPELINES TO BE CONNECTED WITH AIRPORT SPECIFIED BTU METER.
- ALL HVAC EQUIPMENTS IS TO BE INTEGRATED WITH AIRPORT FIRE ALARM SYSTEM. FOR MORE DETAILS PLEASE CHECK FIRE ALARM DRAWING.
- RETURN AIR PATH FROM RETURN DIFFUSER/GRILLE TO AHU IS ABOVE THE CEILING VOID.
- ALL AIR TERMINALS SHOULD BE CONNECTED TO THE SUPPLY/EXTRACT AIR DUCTS THROUGH AN OPPOSED BLADE DAMPER (OBD).
- THE PRESSURE GAUGE SHOULD BE GLYCERINE-FILLED.
- THE CONTRACTOR TO ENSURE THE INSTALLATION AND COMMISSIONING SHALL BE DONE AS PER DIAL'S APPROVED METHODOLOGY.
- THE CONTRACTOR TO ENSURE DUCTING SHALL BE BY 655, GALVANISED IRON SHEET TO BE USED FOR ALL DUCTING WORKS. THERMAL INSULATION ON DUCTS SHALL BE 19 MM THICK, CLOSED CELL CLASS "O" BS 476 PART 6-7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/(M K)) AT 0°C FOR AIR CONDITIONING DUCTING.
- THE CONTRACTOR TO ENSURE 2. THERMAL INSULATION ON KITCHEN EXHAUST DUCTING SHALL BE 80 MM THICK ALUMINIUM FOIL-FACED RESIN-BONDED FIBRE GLASS WOOL OF DENSITY NOT LESS THAN 48 KG/M3.
- THE CONTRACTOR TO ENSURE THERMAL INSULATION ON FRESH AIR, SUPPLY AIR AND RETURN AIR SHALL BE 19MM THICK CLOSED CELL ANTIMICROBIAL CLASS "O" BS 476 AND PART 6 & 7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/(M K)) AT 0°C.
- THE CONTRACTOR IS TO ENSURE SUPPORTING DUCTING IS DONE USING AN ANGLE 50 X 50 X 5 MM AND TIE ROD OF SIZE MINIMUM 10 MM DIA/ AS PER DUCT SIZE.
- APPROPRIATE NUMBER OF TRAP DOORS SHALL BE PROVIDED IN KITCHEN EXHAUST DUCTING FOR OIL/GREASE CLEANING PURPOSE.
- ALL HVAC EQUIPMENT SHOULD BE INTEGRATED WITH FIRE ALARM SYSTEM, SO THAT IT MAY GET SWITCHED OFF IN CASE OF ANY FIRE INCIDENT.

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01 HVAC MAKE UP AIR DUCTING SECTIONAL VIEW  
M103 NTS

T00	09.01.24	ISSUED FOR TENDER	MB	RR
REV	DATE	DESCRIPTION	DRN	CHK



PROJECT  
DELHI STREET  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI

DRAWING TITLE  
HVAC MAKE UP AIR DUCTING  
SECTIONAL VIEW

SCALE NTS DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
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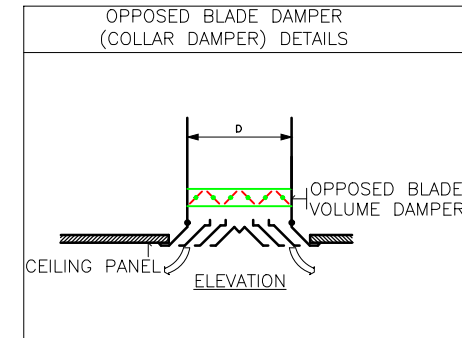
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TFS 0000 HVAC M103T00

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HVAC SYSTEM LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AIR HANDLING UNIT - AHU		MAKE-UP AIR DUCT WITH 19MM NITRILE RUBBER INSULATION - MUAD
	KITCHEN EXHAUST FAN - KEF		SUPPLY AIR DUCT WITH 19MM NITRILE RUBBER INSULATION - SAD
	ELECTROSTATIC PRECIPITATOR - ESP		KITCHEN EXHAUST AIR DUCT WITH 50MM FIRE BOARD INSULATION - KED
	AIR WASHER UNIT - AWU		EXISTING AIR DUCT
	KITCHEN EXHAUST HOOD - KEH		RETURN AIR DUCT - RAD
	SUPPLY AIR ROUND DIFFUSER - SD		ACOUSTIC INSULATION
	MAKE UP AIR GRILLE - MAG 1WAY & 2 WAY GRILLE		ACCESS DOOR FOR DUCTS - AD

BOD : BOTTOM OF DUCT.  
TOD : TOP OF DUCT.  
BOE : BOTTOM OF EQUIPMENT.  
BOA : BOTTOM OF AIR TERMINAL.  
CWS : COLD WATER SUPPLY.  
AHU : AIR HANDLING UNIT.  
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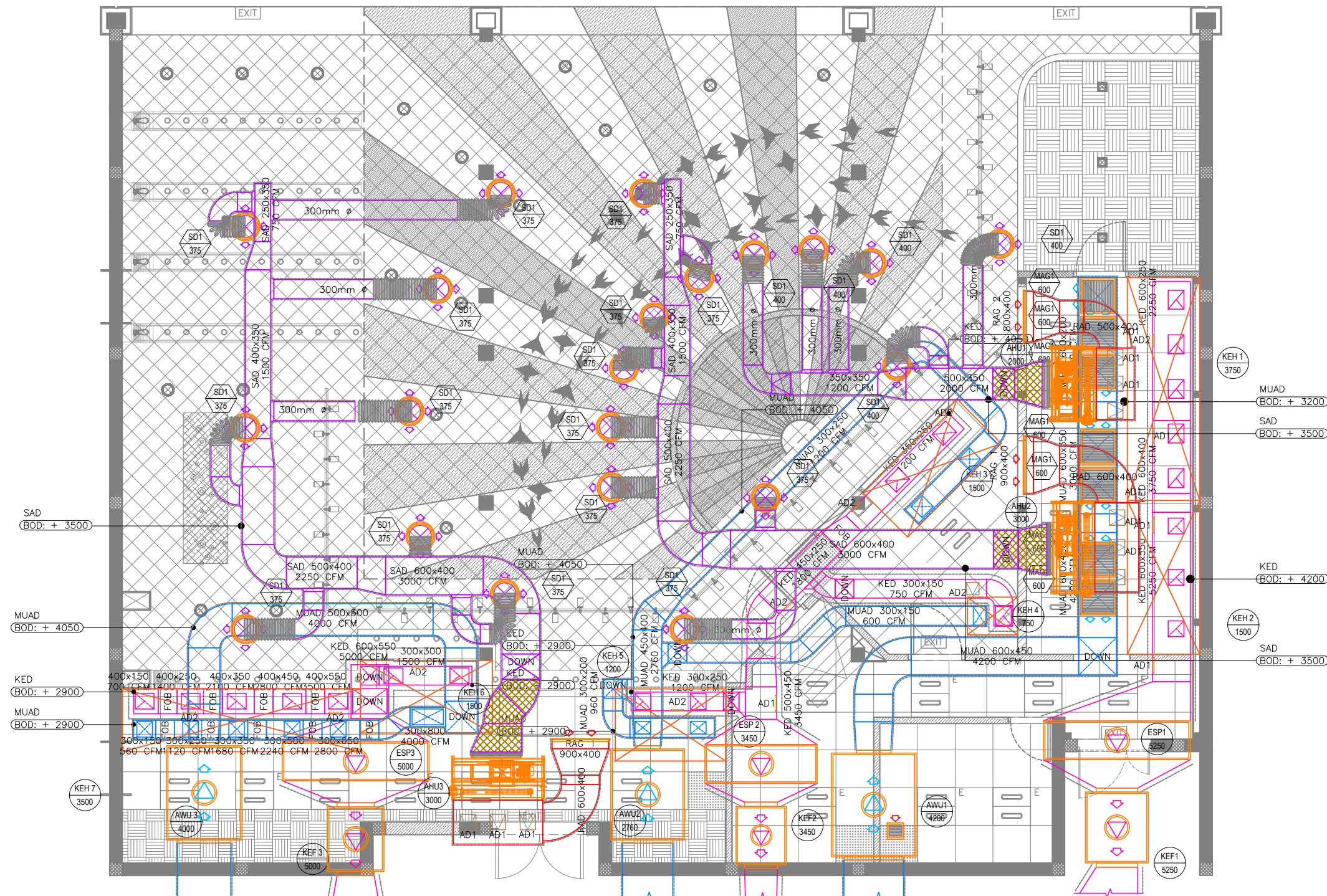
PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**HVAC DUCTING LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

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**TFS 0000 HVAC M104T00**



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**01 HVAC DUCTING LAYOUT**  
M104 1:75

AIR TERMINAL SCHEDULE - DIFFUSERS						
TAG	SERVICE	NECK SIZE (mm)	FACE SIZE (mm)	PATTERN	MATERIAL	REMARKS
MAG 1	SUPPLY	500x500	--	1 WAY	ALUMINIUM	SQUARE CEILING GRILLE - 30' DEFLECTION
SD1	SUPPLY	350mmØ	600mmØ	4 WAY	ALUMINIUM	ROUND CEILING DIFFUSER
RAG 1	RETURN	900x400	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30' DEFLECTION
RAG 2	RETURN	800x400	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30' DEFLECTION

NOTE:  
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ACCESS DOOR DETAILS		
TAG	HEIGHT	WIDTH
AD1	250 mm	250 mm
AD2	200 mm	200 mm

NOTE:  
• THE DUCT ACCESS DOOR SHOULD HAVE CONTINUOUS HINGES AND MANUAL CAM LOCKS.  
• ASSURE AIR-TIGHT DOOR CLOSURE WITH SUITABLE GASKET TO AVOID AIR LEAKAGE.

HVAC EQUIPMENT SCHEDULE				
TAG	EOP TYPE	COOLING CAPACITY (TR)	AIR FLOW (CFM)	WATER FLOW (GPM)
AHU 1	DUCTED HIGH ESP	5.0	2000	12.0
AHU 2	DUCTED HIGH ESP	7.5	3000	18.0
AHU 3	DUCTED MEDIUM ESP	7.5	3000	18.0
KEF 1	DUCTED EXHAUST FAN	--	5250	--
KEF 2	DUCTED EXHAUST FAN	--	3450	--
KEF 3	DUCTED EXHAUST FAN	--	5000	--
ESP 1	DRY SCRUBBER	--	5250	--
ESP 2	DRY SCRUBBER	--	3450	--
ESP 3	DRY SCRUBBER	--	5000	--
AWU 1	DUCTED AIR WASHER	--	4200	--
AWU 2	DUCTED AIR WASHER	--	2760	--
AWU 3	DUCTED AIR WASHER	--	4000	--

NOTE:  
AIRPORT TO PROVIDE CHILL WATER SUPPLY OF 48 GPM TO LOCATION AS INDICATED IN THE DRAWING.  
(ASSUMED CHILL WATER SUPPLY TEMPERATURE 6°C, & CHILL WATER RETURN TEMPERATURE 12°C)

XXX - EQUIPMENT TYPE  
XX - CFM AS INDICATED

AT - TERMINAL TYPE  
XX - CFM AS INDICATED

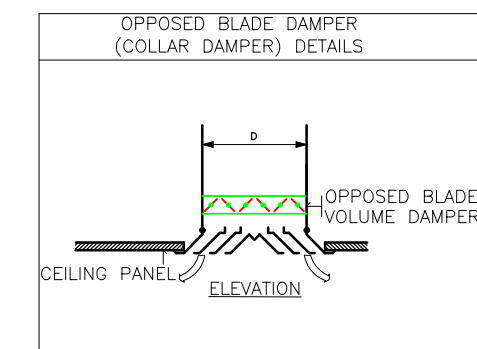
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  - THE CONTRACTOR TO ENSURE THAT THE FLEXIBLE CONNECTION LENGTH SHOULD NOT BE MORE THAN 1.5 METER.
  - THE CONTRACTOR TO ENSURE THE INSTALLATION AND COMMISSIONING SHALL BE DONE AS PER DIAL'S APPROVED METHODOLOGY.
  - THE CONTRACTOR TO ENSURE DUCTING SHALL BE BY 655, GALVANIZED IRON SHEET TO BE USED FOR ALL DUCTING WORKS.
  - THE CONTRACTOR TO ENSURE THERMAL INSULATION ON KITCHEN EXHAUST DUCTING SHALL BE 80 MM THICK ALUMINIUM FOIL-FACED RESIN-BONDED FIBRE GLASS WOOL OF DENSITY NOT LESS THAN 48 KG/M3.
  - THE CONTRACTOR TO ENSURE THERMAL INSULATION ON FRESH AIR, SUPPLY AIR AND RETURN AIR SHALL BE 19MM THICK CLOSED CELL ANTIMICROBIAL CLASS 00BS 476 AND PART 6 & 7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/ (M K)) AT 0°C.
  - THE CONTRACTOR IS TO ENSURE SUPPORTING OF DUCTING TO BE DONE WITH USING ANGLE 50X 50 X 5MM AND THE ROD OF SIZE MINIMUM 10 MM DIA/ AS PER DUCT SIZE.
  - APPROPRIATE NUMBER OF TRAP DOORS SHALL BE PROVIDED IN KITCHEN EXHAUST DUCTING FOR OIL/GREASE CLEANING PURPOSE.

ALL DIMENSIONS MUST BE CHECKED ON SITE  
INFORM THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION

NOTES:  
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HVAC SYSTEM LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	KITCHEN EXHAUST HOOD - KEH		SUPPLY AIR ROUND DIFFUSER - SD
	RETURN AIR GRILLE - RAG		MAKE UP AIR GRILLE - MAG
	OPPOSED BLADE DAMPER - OBD		

BOD : BOTTOM OF DUCT.  
TOD : TOP OF DUCT.  
BOE : BOTTOM OF EQUIPMENT.  
BOA : BOTTOM OF AIR TERMINAL.  
CWS : COLD WATER SUPPLY.  
AHU : AIR HANDLING UNIT.  
AWU : AIR WASHER UNIT.  
C.H : CEILING HEIGHT.



T00 09.01.24 ISSUED FOR TENDER MB RR  
REV DATE DESCRIPTION DRN CHK



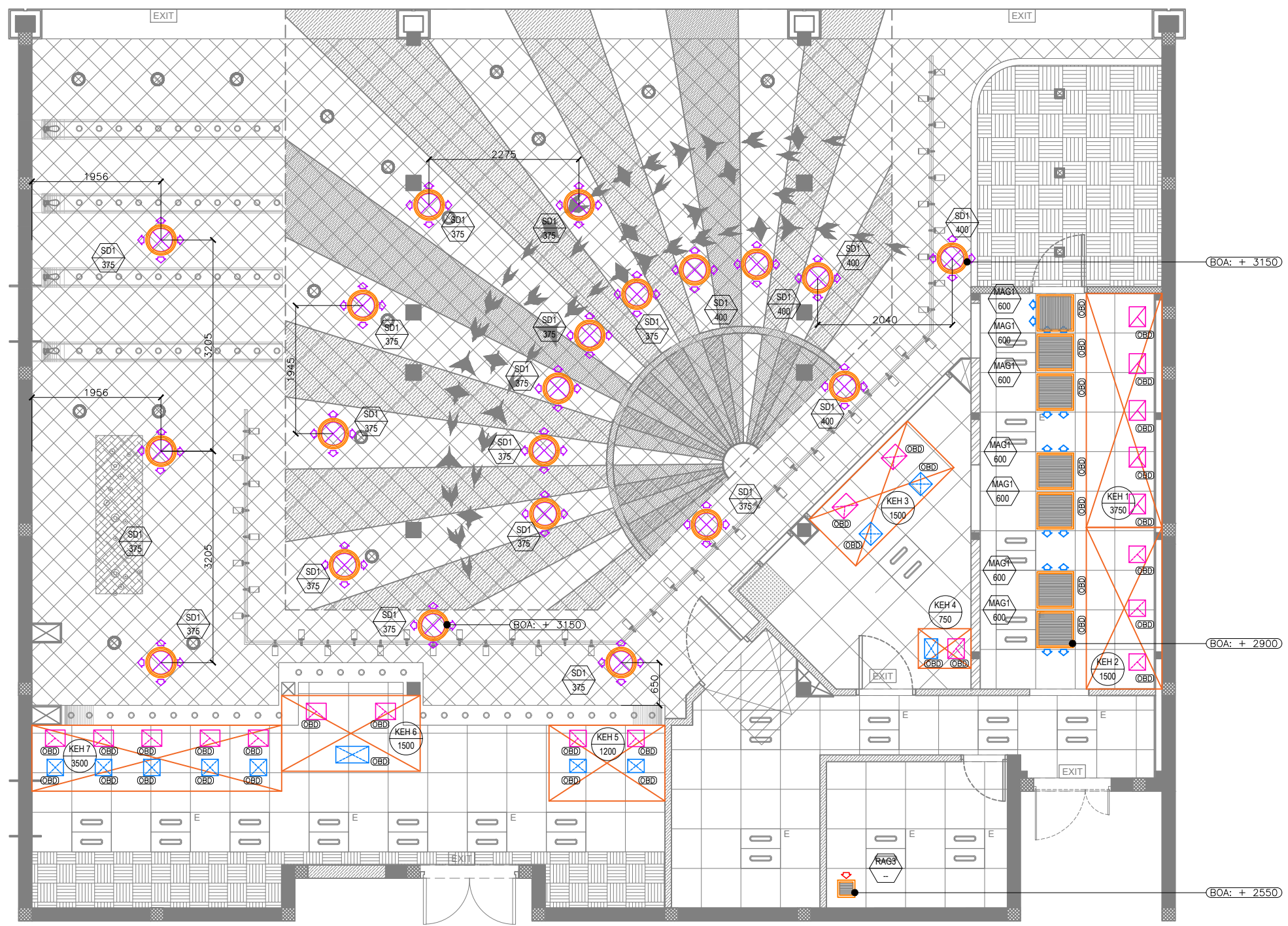
PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**HVAC AIR TERMINAL POSITION  
LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 HVAC M105T00**



**01 HVAC AIR TERMINAL POSITION LAYOUT**  
M105 1:75

AIR TERMINAL SCHEDULE - DIFFUSERS						
TAG	SERVICE	NECK SIZE (mm)	FACE SIZE (mm)	PATTERN	MATERIAL	REMARKS
SD1	SUPPLY	350mm $\phi$	600mm $\phi$	4 WAY	ALUMINIUM	ROUND CEILING DIFFUSER
RAG 1	RETURN	900x400	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30° DEFLECTION
RAG 2	RETURN	800x400	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30° DEFLECTION
RAG 3	RETURN	200x200	--	1 WAY	ALUMINIUM	RECTANGULAR CEILING GRILLE - 30° DEFLECTION
MAG 1	SUPPLY	500x500	--	1 WAY	ALUMINIUM	SQUARE CEILING GRILLE - 30° DEFLECTION

NOTE:  
ALL AIR TERMINALS COLOUR & FINISH IS TO BE ADVISED BY ARCHITECT.

HVAC EQUIPMENT SCHEDULE				
TAG	EQP TYPE	COOLING CAPACITY (TR)	AIR FLOW (CFM)	WATER FLOW (GPM)
AHU 1	DUCTED HIGH ESP	5.0	2000	12.0
AHU 2	DUCTED HIGH ESP	7.5	3000	18.0
AHU 3	DUCTED MEDIUM ESP	7.5	3000	18.0
KEF 1	DUCTED EXHAUST FAN	--	5250	--
KEF 2	DUCTED EXHAUST FAN	--	3450	--
KEF 3	DUCTED EXHAUST FAN	--	5000	--
ESP 1	DRY SCRUBBER	--	5250	--
ESP 2	DRY SCRUBBER	--	3450	--
ESP 3	DRY SCRUBBER	--	5000	--
AWU 1	DUCTED AIR WASHER	--	4200	--
AWU 2	DUCTED AIR WASHER	--	2760	--
AWU 3	DUCTED AIR WASHER	--	4000	--

NOTE:  
AIRPORT TO PROVIDE CHILL WATER SUPPLY OF 48 GPM TO LOCATION AS INDICATED IN THE DRAWING.  
(ASSUMED CHILL WATER SUPPLY TEMPERATURE 6°C, & CHILL WATER RETURN TEMPERATURE 12°C)



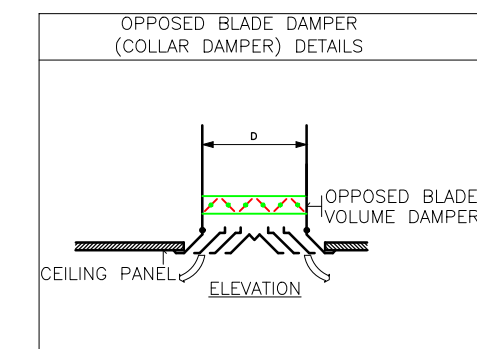
- NOTES:
- ALL DIMENSIONS, OTHERWISE INDICATED ARE IN MM.
  - THIS IS A SCHEMATIC/ CONCEPTUAL DRAWING ONLY TO ARTICULATE THE DESIGN INTENT. POST RECEIPT OF DETAILED SURVEY\*\*, THE DRAWINGS WILL BE AMENDED/ DETAILED FURTHER.
  - ALL AHU PIPELINES TO BE CONNECTED WITH AIRPORT SPECIFIED BTU METER.
  - ALL HVAC EQUIPMENTS IS TO BE INTEGRATED WITH AIRPORT FIRE ALARM SYSTEM. FOR MORE DETAILS PLEASE CHECK FIRE ALARM DRAWING.
  - RETURN AIR PATH FROM RETURN DIFFUSER/GRILLE TO AHU IS ABOVE THE CEILING VOID.
  - ALL AIR TERMINALS SHOULD BE CONNECTED TO THE SUPPLY/EXTRACT AIR DUCTS THROUGH AN OPPOSED BLADE DAMPER (OBD).
  - THE PRESSURE GAUGE SHOULD BE GLYCERINE-FILLED.
  - THE CONTRACTOR TO ENSURE THE INSTALLATION AND COMMISSIONING SHALL BE DONE AS PER DIAL'S APPROVED METHODOLOGY.
  - THE CONTRACTOR TO ENSURE DUCTING SHALL BE BY 655, GALVANISED IRON SHEET TO BE USED FOR ALL DUCTING WORKS. THERMAL INSULATION ON DUCTS SHALL BE 19 MM THICK, CLOSED CELL CLASS "0"BS 476 PART 6-7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/(M K)) AT 0°C FOR AIR CONDITIONING DUCTING.
  - THE CONTRACTOR TO ENSURE 2. THERMAL INSULATION ON KITCHEN EXHAUST DUCTING SHALL BE 80 MM THICK ALUMINIUM FOIL-FACED RESIN-BONDED FIBRE GLASS WOOL OF DENSITY NOT LESS THAN 48 KG/M<sup>3</sup>.
  - THE CONTRACTOR TO ENSURE THERMAL INSULATION ON FRESH AIR, SUPPLY AIR AND RETURN AIR SHALL BE 19MM THICK CLOSED CELL ANTIMICROBIAL CLASS "0"BS 476 AND PART 6 & 7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/ (M K)) AT 0°C.
  - THE CONTRACTOR IS TO ENSURE SUPPORTING DUCTING IS DONE USING AN ANGLE 50 X 50 X 5 MM AND TIE ROD OF SIZE MINIMUM 10 MM DIA/ AS PER DUCT SIZE.
  - APPROPRIATE NUMBER OF TRAP DOORS SHALL BE PROVIDED IN KITCHEN EXHAUST DUCTING FOR OIL/GREASE CLEANING PURPOSE.
  - ALL HVAC EQUIPMENT SHOULD BE INTEGRATED WITH FIRE ALARM SYSTEM, SO THAT IT MAY GET SWITCHED OFF IN CASE OF ANY FIRE INCIDENT.

ALL DIMENSIONS MUST BE CHECKED ON SITE  
INFORM THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION

NOTES:  
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HVAC SYSTEM LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AIR HANDLING UNIT - AHU		AIR WASHER UNIT - AWU
	KITCHEN EXHAUST FAN - KEF		KITCHEN EXHAUST HOOD - KEH
	ELECTROSTATIC PRECIPITATOR - ESP		

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TOD : TOP OF DUCT.  
BOE : BOTTOM OF EQUIPMENT.  
BOA : BOTTOM OF AIR TERMINAL.  
CWS : COLD WATER SUPPLY.  
AHU : AIR HANDLING UNIT.  
AWU : AIR WASHER UNIT.  
C.H : CEILING HEIGHT.



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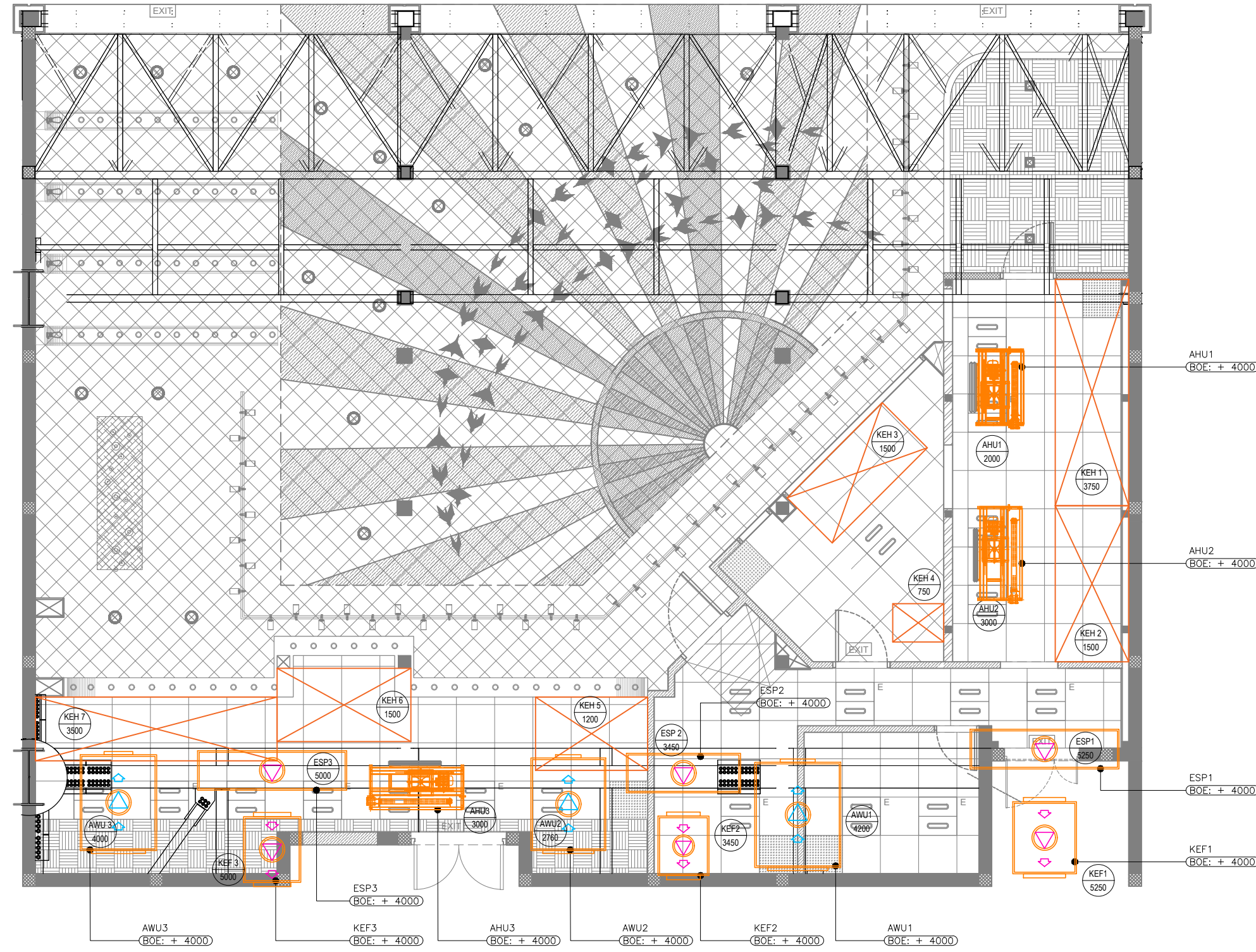
PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**HVAC EQUIPMENT POSITIONING  
LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 HVAC M106T00**



**01 HVAC EQUIPMENT POSITIONING LAYOUT**  
M106 1:75

HVAC EQUIPMENT SCHEDULE				
TAG	EQP TYPE	COOLING CAPACITY (TR)	AIR FLOW (CFM)	WATER FLOW (GPM)
AHU 1	DUCTED HIGH ESP	5.0	2000	12.0
AHU 2	DUCTED HIGH ESP	7.5	3000	18.0
AHU 3	DUCTED MEDIUM ESP	7.5	3000	18.0
KEF 1	DUCTED EXHAUST FAN	--	5250	--
KEF 2	DUCTED EXHAUST FAN	--	3450	--
KEF 3	DUCTED EXHAUST FAN	--	5000	--
ESP 1	DRY SCRUBBER	--	5250	--
ESP 2	DRY SCRUBBER	--	3450	--
ESP 3	DRY SCRUBBER	--	5000	--
AWU 1	DUCTED AIR WASHER	--	4200	--
AWU 2	DUCTED AIR WASHER	--	2760	--
AWU 3	DUCTED AIR WASHER	--	4000	--

NOTE:  
AIRPORT TO PROVIDE CHILL WATER SUPPLY OF 48 GPM TO LOCATION AS INDICATED IN THE DRAWING.  
(ASSUMED CHILL WATER SUPPLY TEMPERATURE 6°C, & CHILL WATER RETURN TEMPERATURE 12°C)

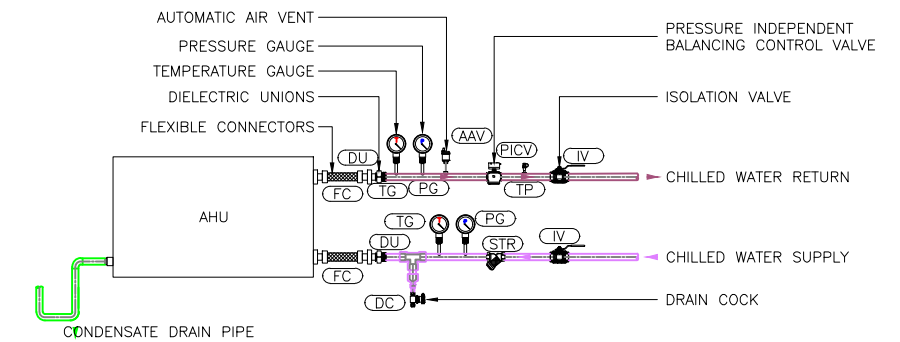
XXX - EQUIPMENT TYPE  
XX - CFM AS INDICATED  
AT - TERMINAL TYPE  
XX - CFM AS INDICATED

- NOTES:
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  - ALL AHU PIPELINES TO BE CONNECTED WITH AIRPORT SPECIFIED BTU METER.
  - ALL HVAC EQUIPMENTS IS TO BE INTEGRATED WITH AIRPORT FIRE ALARM SYSTEM. FOR MORE DETAILS PLEASE CHECK FIRE ALARM DRAWING.
  - RETURN AIR PATH FROM RETURN DIFFUSER/GRILLE TO AHU IS ABOVE THE CEILING VOID.
  - ALL AIR TERMINALS SHOULD BE CONNECTED TO THE SUPPLY/EXTRACT AIR DUCTS THROUGH AN OPPOSED BLADE DAMPER (OBD).
  - THE PRESSURE GAUGE SHOULD BE GLYCERINE-FILLED.
  - THE CONTRACTOR TO ENSURE THE INSTALLATION AND COMMISSIONING SHALL BE DONE AS PER DIAL'S APPROVED METHODOLOGY.
  - THE CONTRACTOR TO ENSURE DUCTING SHALL BE BY 655, GALVANISED IRON SHEET TO BE USED FOR ALL DUCTING WORKS. THERMAL INSULATION ON DUCTS SHALL BE 19 MM THICK. CLOSED CELL CLASS "O" BS 476 PART 6-7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/(M K)) AT 0°C FOR AIR CONDITIONING DUCTING.
  - THE CONTRACTOR TO ENSURE 2. THERMAL INSULATION ON KITCHEN EXHAUST DUCTING SHALL BE 80 MM THICK ALUMINIUM FOIL-FACED RESIN-BONDED FIBRE GLASS WOOL OF DENSITY NOT LESS THAN 48 KG/M3.
  - THE CONTRACTOR TO ENSURE THERMAL INSULATION ON FRESH AIR, SUPPLY AIR AND RETURN AIR SHALL BE 19MM THICK CLOSED CELL ANTIMICROBIAL CLASS "O" BS 476 AND PART 6 & 7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/(M K)) AT 0°C.
  - THE CONTRACTOR IS TO ENSURE SUPPORTING DUCTING IS DONE USING AN ANGLE 50 X 50 X 5 MM AND THE ROD OF SIZE MINIMUM 10 MM DIA/ AS PER DUCT SIZE.
  - APPROPRIATE NUMBER OF TRAP DOORS SHALL BE PROVIDED IN KITCHEN EXHAUST DUCTING FOR OIL/GREASE CLEANING PURPOSE.
  - ALL HVAC EQUIPMENT SHOULD BE INTEGRATED WITH FIRE ALARM SYSTEM, SO THAT IT MAY GET SWITCHED OFF IN CASE OF ANY FIRE INCIDENT.

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TYPICAL DETAIL OF AHU CHILLED WATER PIPE CONNECTIONS



SYMBOL		DESCRIPTION
(AAV)		AUTOMATIC AIR VENT
(DC)		DRAIN COCK
(DU)		DIELECTRIC UNION
(FC)		FLEXIBLE CONNECTORS / FLEXIBLE METAL HOSE
(IV)		ISOLATION VALVE (BALL VALVE)
(PICV)		PRESSURE INDEPENDENT BALANCING CONTROL VALVE (PICV / PIBCV)
(STR)		Y TYPE STRAINER
(PG)		GLYCERENE FILLED PRESSURE GAUGE
(TG)		GLYCERENE FILLED TEMPERATURE GAUGE
		CHILLED WATER SUPPLY PIPE - INSULATED
		CHILLED WATER RETURN PIPE - INSULATED
		CONDENSATE DRAIN PIPE - INSULATED
		U-TRAP UT
		WATER SUPPLY PIPE

NOTE:

- IF REQUIRED, FLANGE CONNECTIONS TO BE PROVIDED BASED ON EQUIPMENT SELECTION.

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REV DATE DESCRIPTION DRN CHK

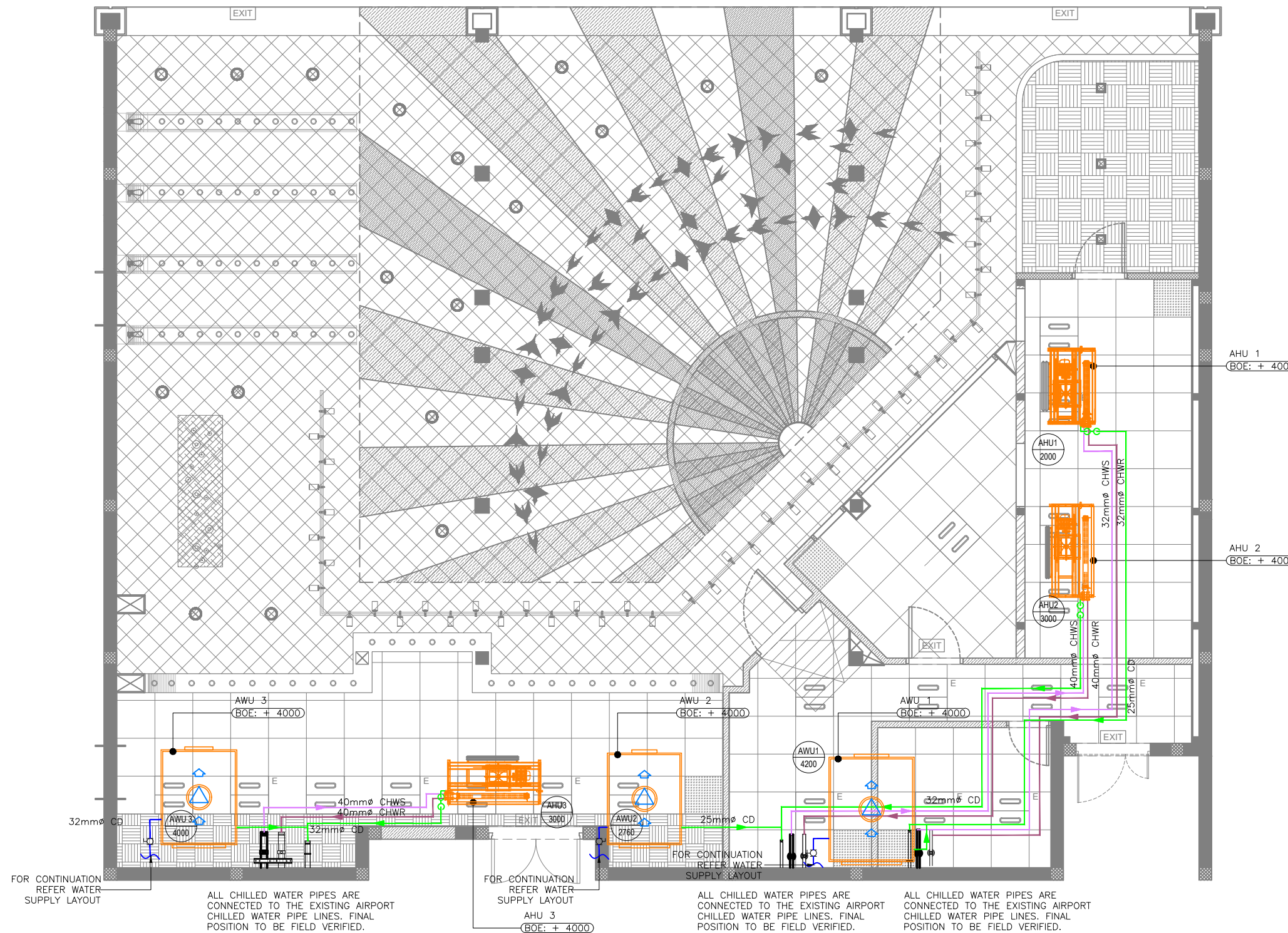


PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**HVAC PIPING LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
**TENDER**  
ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 HVAC M201T00**



**01 HVAC PIPING LAYOUT**

M201 1:75

TAG	EQP TYPE	COOLING CAPACITY (TR)	AIR FLOW (CFM)	WATER FLOW (GPM)
AHU 1	DUCTED HIGH ESP	5.0	2000	12.0
AHU 2	DUCTED HIGH ESP	7.5	3000	18.0
AHU 3	DUCTED MEDIUM ESP	7.5	3000	18.0
AWU 1	DUCTED AIR WASHER	--	4200	--
AWU 2	DUCTED AIR WASHER	--	2760	--
AWU 3	DUCTED AIR WASHER	--	4000	--

NOTE:

AIRPORT TO PROVIDE CHILL WATER SUPPLY OF 48 GPM TO LOCATION AS INDICATED IN THE DRAWING.  
(ASSUMED CHILL WATER SUPPLY TEMPERATURE 6°C, & CHILL WATER RETURN TEMPERATURE 12°C)

XXX EQUIPMENT TYPE  
XX CFM AS INDICATED

DRAWING NOTES:

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- THIS IS A SCHEMATIC/ CONCEPTUAL DRAWING ONLY TO ARTICULATE THE DESIGN INTENT. POST RECEIPT OF DETAILED SURVEY\*\*, THE DRAWINGS WILL BE AMENDED/ DETAILED FURTHER.
- AHU PIPELINES TO BE CONNECTED WITH AIRPORT SPECIFIED BTU METER.
- COIL ADP TAKEN AS 58 DEG. F. BASIS FOR THE SAME NEEDS TO BE FACILITATED.
- ALL HVAC EQUIPMENT AND ACCESSORIES TECHNICAL DATA SHEET NEED GET APPROVED FROM DIAL PRIOR PROCUREMENT.
- FITTINGS (INSULATION, VALVES, DAMPERS, TEMPERATURE & PRESSURE GAUGE, PIDV ETC. TECHNICAL DATA SHEET NEEDS TO BE FACILITATED AND GET APPROVED BY DIAL ENGINEERING CONCERN TEAM PRIOR TO THE INSTALLATION.
- THE CONTRACTOR TO ENSURE CHILLED WATER PIPING SHALL BE CONFIRMING TO IS:1239 PART I CLASS 'C' HEAVY AND FITTING SHALL BE CONFORMING TO ASTM A-105,3000LBS SOCKET WELD END (UP TO 50MM) & 1S:1239 PART-II HEAVY/ASTM A-234 WPB, GR.B BUTT WELD FITTING ( ABOVE 50NB PIPE SIZE).
- THE CONTRACTOR TO ENSURE PIPING CONNECTION SHOULD BE SOCKET WELDED UP TO 50NB SIZE AND SHALL BE BUTT WELDED ABOVE 50NB PIPE SIZE. PIPE FLANGES SHOULD BE CONFIRMED TO ASTM A-105 # 150 SORF AND FLANGE DIMENSION SHOULD BE UNDER ASME/ANSI B 16.5 (150 SORF), FITTING TO FITTING WELDING IS NOT ALLOWED. NOZZLE CONNECTIONS/THREDOLETS/WELDOLETS ARE NOT ALLOWED BY PUNCTURING THE PIPE. ONLY EQUAL/UNEQUAL TEES SHALL BE USED FOR BRANCH CONNECTION FROM THE HEADER. SOCKET WELD END TEE SHOULD BE USED FOR BRANCH CONNECTION (UP-TO -50NB PIPE SIZE) W.R.T TO PRESSURE GAUGE/TEMPERATURE GAUGE/AIR VENT/DRAIN POINT ETC.
- POST-INSTALLATION CLEARANCE BY DIAL, CHW PIPING SHALL BE TESTED @15KG/CM2 HYDROSTATICS PRESSURE FOR 24HRS HOLD TIME AND TESTING SHOULD BE WITNESSED TO THE DIAL TEAM.THERMAL INSULATION ON CHW AND CONDENSATE DRAIN PIPING LINE SHALL BE 25MM THICK. CLOSED CELL ANTIMICROBIAL CLASS "O" BS 476 AND PART 6 & 7 FM APPROVED NITRILE RUBBER ELASTOMERIC INSULATION THERMAL CONDUCTIVITY 0.033 WATTS PER METER-KELVIN (W/ (M K)) AT 0°C.
- CONTRACTOR TO ENSURE CONDENSATE DRAIN PIPING SHALL BE COMPLYING WITH IS 4985 CLASS 3 UPVC PIPE. SOLVENT CEMENT COMPLYING WITH ASTM D2564 SHALL BE USED FOR JOINTS..
- FOR CEILING SUSPENDED CHILLED WATER PIPE: PIPE SHOULD BE HANGED WITH TIE ROD OF SIZE MINIMUM 10 MM DIA.

- ELBOW DOWN
- ELBOW UP
- TOP CONNECTION
- BOTTOM CONNECTION
- FLOW DIRECTION
- REDUCER



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PROJECT / BUILDING NAME :		DILLI STREET																			
FED FROM :		AIRPORT DISTRIBUTION FEEDER (STORE-3)																			
DISTRIBUTION BOARD / REF :							SMDB														
MAIN INCOMING CABLE :							4 // 1C x 35 SQ.MM FRLS/LSZH PVC CU. WIRE + 1C x 16 SQ.MM ECC														
DB AREA REFERENCE :																	ELECTRICAL CLOSET @ STORE-3				
DOCUMENT NO. :																					
MAIN INCOMER RATING (A)	CIRCUIT ID	BREAKER TYPE	BREAKER RATING (A)	WIRE SIZE (PH & N) (mm <sup>2</sup> )	WIRE SIZE (EARTH) (mm <sup>2</sup> )	EQUIP. TAG	CIRCUIT NAME / POINT REFERENCE	SOCKET RATING (A)	NUMBER OF POINTS	CONN. LOAD / POINT (W)	DIVERSITY TYPE	DIVERSITY FACTOR	R	Y	B	TOTAL CONN. LOAD (kW)	TOTAL DIVERSITY LOAD (kW)	REMARKS			
125A MCCB	RYB1	4P RCBO	32A	6	6	BK-02	BHATURE FRYER	32A	1	10000	PWR	0.70	3.33	3.33	3.33	10.00	7.00	3 PH INDUSTRIAL SOCKET			
	RYB2	4P RCBO	32A	6	6	DW-03	DISH WASH MACHINE	32A	1	12000	PWR	0.50	4.00	4.00	4.00	12.00	6.00	3 PH INDUSTRIAL SOCKET			
	RYB3	4P RCBO	32A	6	6	KK-05 (1)	ELECTRIC TANDOOR	32A	1	8000	PWR	0.50	2.67	2.67	2.67	8.00	4.00	3 PH INDUSTRIAL SOCKET			
	RYB4	4P RCBO	32A	6	6	KK-05 (2)	ELECTRIC TANDOOR	32A	1	8000	PWR	0.50	2.67	2.67	2.67	8.00	4.00	3 PH INDUSTRIAL SOCKET			
	RYB5	4P RCBO	20A	4	4	-	KITCHEN AIR WASHER UNIT-1	20A	1	4500	PWR	1.00	1.50	1.50	1.50	4.50	4.50	TPN ISOLATOR			
	RYB6	4P RCBO	20A	4	4	-	KITCHEN AIR WASHER UNIT-2	20A	1	4500	PWR	1.00	1.50	1.50	1.50	4.50	4.50	TPN ISOLATOR			
	RYB7	4P RCBO	20A	4	4	-	KITCHEN AIR WASHER UNIT-3	20A	1	4500	PWR	1.00	1.50	1.50	1.50	4.50	4.50	TPN ISOLATOR			
	RYB8	4P RCBO	20A	4	4	-	KITCHEN EXTRACT FAN-1 + ESP-1	20A	1	3200	PWR	1.00	1.07	1.07	1.07	3.20	3.20	TPN ISOLATOR			
	RYB9	4P RCBO	20A	4	4	-	KITCHEN EXTRACT FAN-2 + ESP-2	20A	1	3200	PWR	1.00	1.07	1.07	1.07	3.20	3.20	TPN ISOLATOR			
	RYB10	4P RCBO	20A	4	4	-	KITCHEN EXTRACT FAN-3 + ESP-3	20A	1	3200	PWR	1.00	1.07	1.07	1.07	3.20	3.20	TPN ISOLATOR			
	R11	2P RCBO	16A	4	2.5	-	AIR HANDLING UNIT -1	16A	1	1000	PWR	1.00	1.00	-	-	1.00	1.00	SPN ISOLATOR			
	Y11	2P RCBO	16A	4	2.5	-	AIR HANDLING UNIT -2	16A	1	1000	PWR	1.00	-	1.00	-	1.00	1.00	SPN ISOLATOR			
	B11	2P RCBO	16A	4	2.5	-	AIR HANDLING UNIT -3	16A	1	1000	PWR	1.00	-	-	1.00	1.00	1.00	SPN ISOLATOR			
	R12	2P RCBO	16A	-	-	-	SPARE	-	1	200	PWR	0.50	0.20	-	-	0.20	0.10	-			
Y12	2P RCBO	16A	-	-	-	SPARE	-	1	200	PWR	0.50	-	0.20	-	0.20	0.10	-				
B12	2P RCBO	16A	-	-	-	SPARE	-	1	200	PWR	0.50	-	-	0.20	0.20	0.10	-				
												SMDB	21.57	21.57	21.57	64.70	47.40				
													TCL - R	TCL - Y	TCL - B	TCL	TDL				

ABBREVIATIONS : PWR - POWER, LTG - LIGHTING, UPS - UNINTERRUPTIBLE POWER SUPPLY, A - AMPS, W - WATTS, kW - KILOWATT, 1R - ONE RUN, 4C - FOUR CORE, 2C - TWO CORE, CU. - COPPER, ECC - EARTH CONTINUITY CONDUCTOR, CONN. - CONNECTED

TOTAL CONNECTED LOAD	64.70	SMDB	TCL (kW)
TOTAL DEMAND LOAD	47.40	SMDB	TDL (kW)
AVERAGE DIVERSITY FACTOR	73%	SMDB	(%)

TOTAL CONNECTED LOAD (STORE-3 + STORE-4 + STORE-5)	235.63	SMDB + EQP SMDB + LPDB	TCL (kW)
TOTAL DEMAND LOAD (STORE-3 + STORE-4 + STORE-5)	162.16	SMDB + EQP SMDB + LPDB	TDL (kW)
AVERAGE DIVERSITY FACTOR	69%	SMDB + EQP SMDB + LPDB	(%)

T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



PROJECT  
DILLI STREET  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI

DRAWING TITLE  
LOAD CALCULATION SHEET  
SMDB (STORE-3)  
SHEET 1 OF 3

SCALE NTS DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
TENDER

ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 ELEC E101 T00



DISTRIBUTION BOARD / REF :		UPS DB (FED FROM LPDB)					DB AREA REFERENCE : ELECTRICAL CLOSET @ STORE-4											
MAIN INCOMING CABLE :		2 // 1C x 4 SQ.MM FRLS/LSZH PVC CU. WIRES + 1C x 2.5 SQ.MM ECC					DOCUMENT NO. :											
MAIN INCOMER RATING (A)	CIRCUIT ID	BREAKER TYPE	BREAKER RATING (A)	WIRE SIZE (PH & N) (mm <sup>2</sup> )	WIRE SIZE (EARTH) (mm <sup>2</sup> )	EQUIP. CODE	CIRCUIT NAME / POINT REFERENCE	SOCKET RATING (A)	NUMBER OF POINTS	CONN. LOAD / POINT (W)	DIVERSITY TYPE	DIVERSITY FACTOR	R	Y	B	TOTAL CONN. LOAD (kW)	TOTAL DIVERSITY LOAD (kW)	REMARKS
20A 30mA RCBO	C1	MCB	10A	2.5	1.5	-	10 LED PANEL LIGHT (LT11) + SQUARE LED PANEL LIGHT + EXT LIGHT	-	13	404	LTG	1	-	0.40	-	0.40	0.40	-
	C2	MCB	10A	2.5	1.5	-	ROUND LEDLED PANEL LIGHT (LT13) + EXT LIGHT	-	11	196	LTG	1	-	0.20	-	0.20	0.20	-
	C3	MCB	20A	4	2.5	-	KOT PRINTERS (CHAATWALA + MAIN+BIRIYANI + LIVE+ KEBABI KITCHEN)	13A	5	200	UPS	1	-	1.00	-	1.00	1.00	RADIAL CKT
	C4	MCB	20A	4	2.5	-	POS COUNTER (BAR AREA)+ ORDER STATION (SEATING AREA)	13A	6	200	UPS	1	-	1.20	-	1.20	1.20	RING CKT
	C5	MCB	16A	2.5	1.5	-	IDF RACK	13A	1	500	UPS	1	-	0.50	-	0.50	0.50	-
	C6	MCB	16A	-	-	-	SPARE	-	1	200	UPS	1	-	0.20	-	0.20	0.20	-
												UPS DB	0.00	3.50	0.00	3.50	3.50	
													TCL - R	TCL - Y	TCL - B	TCL	TDL	

ABBREVIATIONS : PWR - POWER, LTG - LIGHTING, UPS - UNINTERRUPTIBLE POWER SUPPLY, A - AMPS, W - WATTS, KW - KILOWATT, 1R - ONE RUN, 4C - FOUR CORE, 2C - TWO CORE, CU - COPPER, ECC - EARTH CONTINUITY CONDUCTOR, CONN. - CONNECTED

TOTAL CONNECTED LOAD	76.13	LPDB + UPS DB	TCL (kW)
TOTAL DEMAND LOAD	57.20	LPDB + UPS DB	TDL (kW)
AVERAGE DIVERSITY FACTOR	75%	LPDB + UPS DB	(%)

ALL DIMENSIONS MUST BE CHECKED ON SITE.  
INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

NOTES:  
IRRESPECTIVE OF THE DRAWING(S), IT IS THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY THAT SHALL BE EXECUTED AND COMPLETED IN ACCORDANCE TO THE SPECIFICATION, DRAWING(S) AS WELL AS REQUIREMENT. THE SAID DRAWING(S) SHALL NOT RELIEVE CONTRACTOR FROM ITS OBLIGATION UNDER THE CONTRACT AND IN PARTICULAR FROM ITS RESPONSIBILITY IN RELATION TO THE INSTALLATION MATERIALS AND WORKMANSHIP AND WHERE RELEVANT FROM A DUTY TO SEEK APPROVAL FROM THE COMPETENT AUTHORITY.

PROJECT / BUILDING NAME :		DILLI STREET					DB AREA REFERENCE : ELECTRICAL CLOSET @ STORE-5											
FED FROM :		AIRPORT DISTRIBUTION FEEDER (STORE-5)					DOCUMENT NO. :											
DISTRIBUTION BOARD / REF :		EQP SMDB					DOCUMENT NO. :											
MAIN INCOMING CABLE :		4 // 1C x 50 SQ.MM FRLS/LSZH PVC CU. WIRE + 1C x 25 SQ.MM ECC					DOCUMENT NO. :											
MAIN INCOMER RATING (A)	CIRCUIT ID	BREAKER TYPE	BREAKER RATING (A)	WIRE SIZE (PH & N) (mm <sup>2</sup> )	WIRE SIZE (EARTH) (mm <sup>2</sup> )	EQUIP. TAG	CIRCUIT NAME / POINT REFERENCE	SOCKET RATING (A)	NUMBER OF POINTS	CONN. LOAD / POINT (W)	DIVERSITY TYPE	DIVERSITY FACTOR	R	Y	B	TOTAL CONN. LOAD (kW)	TOTAL DIVERSITY LOAD (kW)	REMARKS
160A MCCB + ELR TRIP	RYB1	4P RCBO	63A	16	16	K-05	4 BURNER COOKING RANGE WITH OVEN BELOW	63A	1	22000	PWR	0.50	7.33	7.33	7.33	22.00	11.00	3 PH INDUSTRIAL SOCKET
	RYB2	4P RCBO	63A	16	16	K-07	4 BURNER COOKING RANGE WITH OVEN BELOW	63A	1	22000	PWR	0.50	7.33	7.33	7.33	22.00	11.00	3 PH INDUSTRIAL SOCKET
	RYB3	4P RCBO	32A	6	6	K-01	CHINESE WOK ELECTRIC	32A	1	10000	PWR	0.70	3.33	3.33	3.33	10.00	7.00	3 PH INDUSTRIAL SOCKET
	RYB4	4P RCBO	32A	6	6	K-03A	RATIONAL COMBI OVEN	32A	1	11000	PWR	0.70	3.67	3.67	3.67	11.00	7.70	3 PH INDUSTRIAL SOCKET
	RYB5	4P RCBO	32A	6	6	KK-01A (1)	TABLE TOP ROUND TAWA	32A	1	8000	PWR	0.70	2.67	2.67	2.67	8.00	5.60	3 PH INDUSTRIAL SOCKET
	RYB6	4P RCBO	32A	6	6	KK-01A (2)	TABLE TOP ROUND TAWA	32A	1	8000	PWR	0.70	2.67	2.67	2.67	8.00	5.60	3 PH INDUSTRIAL SOCKET
	R7	2P RCBO	32A	6	4	KK-04A	TABLE TOP ROOMALI TAWA	20A	1	5000	PWR	0.70	5.00	-	-	5.00	3.50	1PH INDUSTRIAL SOCKET
	Y7	2P RCBO	32A	6	4	LK-02A (2)	TABLE TOP HOT PLATE	20A	1	4400	PWR	0.70	-	4.40	-	4.40	3.08	1PH INDUSTRIAL SOCKET
	B7	2P RCBO	32A	6	4	LK-02A (1)	TABLE TOP HOT PLATE	20A	1	4400	PWR	0.70	-	-	4.40	4.40	3.08	1PH INDUSTRIAL SOCKET
	R8	-	-	-	-	-	-	SPACE	-	-	-	-	-	-	-	0.00	0.00	-
Y8	-	-	-	-	-	-	SPACE	-	-	-	-	-	-	0.00	0.00	0.00	-	
B8	-	-	-	-	-	-	SPACE	-	-	-	-	-	-	0.00	0.00	0.00	-	
												EQP SMDB	32.00	31.40	31.40	94.80	57.56	
													TCL - R	TCL - Y	TCL - B	TCL	TDL	

ABBREVIATIONS : PWR - POWER, LTG - LIGHTING, UPS - UNINTERRUPTIBLE POWER SUPPLY, A - AMPS, W - WATTS, KW - KILOWATT, 1R - ONE RUN, 4C - FOUR CORE, 2C - TWO CORE, CU - COPPER, ECC - EARTH CONTINUITY CONDUCTOR, CONN. - CONNECTED

TOTAL CONNECTED LOAD	94.80	EQP SMDB	TCL (kW)
TOTAL DEMAND LOAD	57.56	EQP SMDB	TDL (kW)
AVERAGE DIVERSITY FACTOR	61%	EQP SMDB	(%)

T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



PROJECT  
DILLI STREET  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI

DRAWING TITLE  
LOAD CALCULATION SHEET  
UPS DB & EQP SMDB (STORE-4 & 5)  
SHEET 3 OF 3

SCALE NTS DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
TENDER

ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 ELEC E103 T00

FED FROM STORE-3 (IC-1) (5.3-016)  
(INCOMING SUPPLY FED FROM AIRPORT FEEDER)

kWH (PREPAID METER)

125A

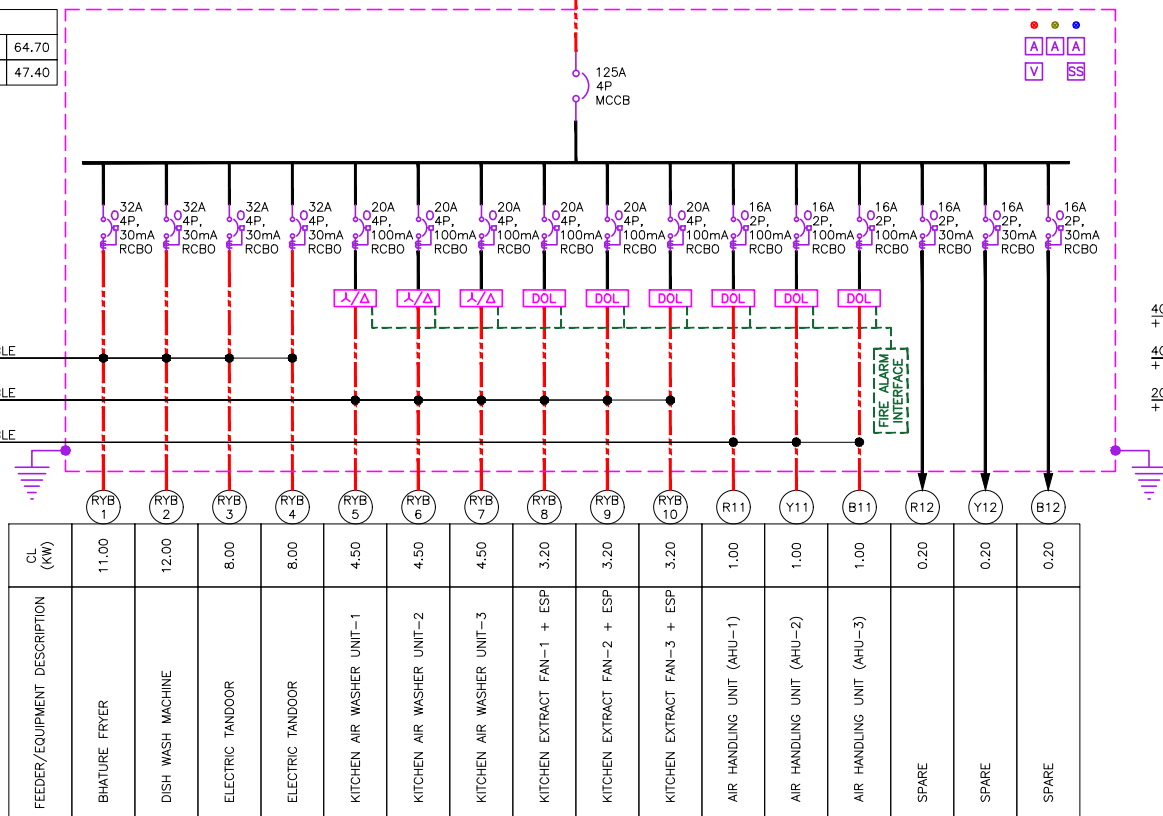
4 // 1C x 35 SQ.MM FRLS/LSZH PVC CU. WIRE  
+ 1C x 16 SQ.MM ECC

SMDB	
CONN. LOAD (kW)	64.70
DEMAND LOAD (kW)	47.40

4C x 6 SQ.MM XLPE SWA PVC CU. CABLE  
+ 1C x 6 SQ.MM ECC

4C x 4 SQ.MM XLPE SWA PVC CU. CABLE  
+ 1C x 4 SQ.MM ECC

2C x 4 SQ.MM XLPE SWA PVC CU. CABLE  
+ 1C x 2.5 SQ.MM ECC



FED FROM STORE-5 (IC-3) (5.3-018)  
(INCOMING SUPPLY FED FROM AIRPORT FEEDER)

kWH (PREPAID METER)

160A

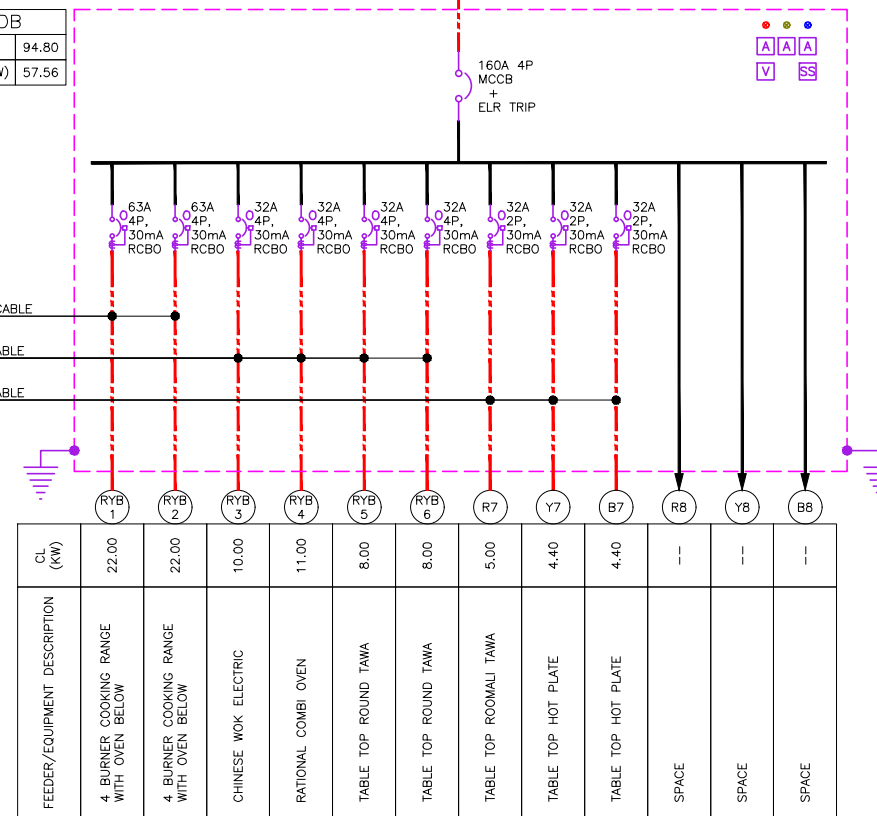
4 // 1C x 50 SQ.MM FRLS/LSZH PVC CU. WIRE  
+ 1C x 25 SQ.MM ECC

EQP SMDB	
CONN. LOAD (kW)	94.80
DEMAND LOAD (kW)	57.56

4C x 16 SQ.MM XLPE SWA PVC CU. CABLE  
+ 1C x 16 SQ.MM ECC

4C x 6 SQ.MM XLPE SWA PVC CU. CABLE  
+ 1C x 6 SQ.MM ECC

2C x 6 SQ.MM XLPE SWA PVC CU. CABLE  
+ 1C x 4 SQ.MM ECC



ELECTRICAL LOW VOLTAGE SYSTEM LEGEND

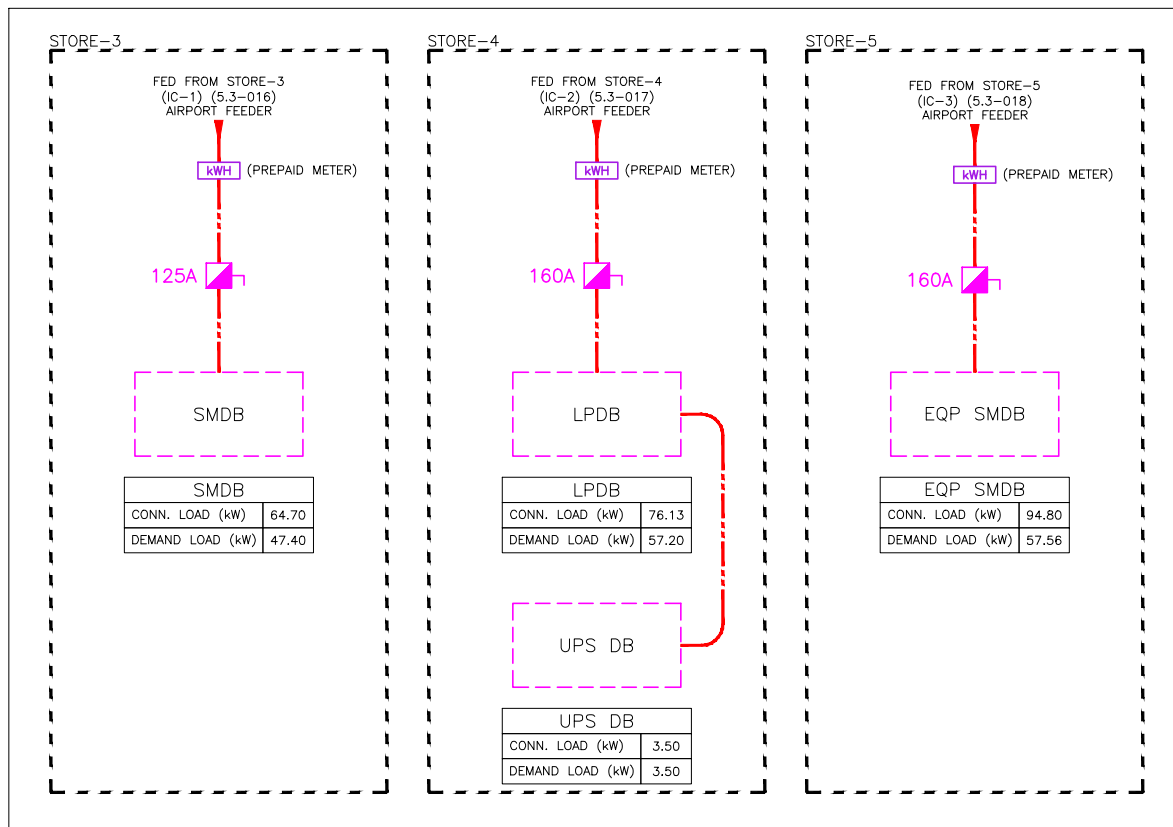
SYMBOL	DESCRIPTION	QTY
	MCCB (MOULDED CASE CIRCUIT BREAKER)	--
	MCB (MINIATURE CIRCUIT BREAKER)	--
	RCBO (RESIDUAL CURRENT CIRCUIT BREAKER WITH OVER CURRENT & SHORT CIRCUIT PROTECTION)	--
	VOLTMETER	--
	VOLTAGE SELECTOR SWITCH	--
	AMMETER	--
	ENERGY METER - DIRECT TYPE	--
	ENERGY METER - CT TYPE (PREPAID METER)	00
	EARTH CONNECTION	--
	RYB INDICATOR LAMPS	--
	DIRECT ONLINE STARTER (D.O.L.)	--
	STAR / DELTA STARTER	--
	THREE PHASE ISOLATOR	--
	ELECTRICAL CABLE	--

NOTES

- CONTRACTOR TO CHECK & CONFIRM ACTUAL SITE CONDITIONS PRIOR TO START DEVELOPING THEIR SHOP DRAWINGS & WORK AT SITE.
- LAMINATED SINGLE LINE DIAGRAM & LOAD CALCULATION SHEET TO BE PROVIDED INSIDE / NEAR TO EACH ELECTRICAL PANEL / DB'S.
- ALL CABLES & WIRES MUST BE FRLS/LSZH.
- GI CONDUITS WITH SUITABLE DIAMETER TO BE USED.
- AUTOMATIC FIRE SUPPRESSION SYSTEM TO BE PROVIDED FOR ELECTRICAL PANELS ACCORDING TO FIRE CODE / DIAL TENENT DESIGN MANUAL.
- POWER FOR HVAC EQUIPMENTS TO BE SHUT DOWN DURING FIRE SITUATION BY INTERFACING WITH FACP.

ALL DIMENSIONS MUST BE CHECKED ON SITE.  
INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

NOTES:  
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ELECTRICAL SLD - COMBINED STORE-3, 4 & 5

T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



PROJECT  
DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI

DRAWING TITLE  
ELECTRICAL SLD  
SMDB & EQP SMDB (STORE-3 & 5)  
SHEET 1 OF 2

SCALE NTS DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
TENDER

ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 ELEC E201 T00

FED FROM STORE-4 (IC-2) (5.3-017)  
(INCOMING SUPPLY FED FROM AIRPORT FEEDER)

160A (PREPAID METER)

4 // 1C x 50 SQ.MM FRLS/LSZH PVC CU. WIRE  
+ 1C x 25 SQ.MM ECC

160A 4P MCCB

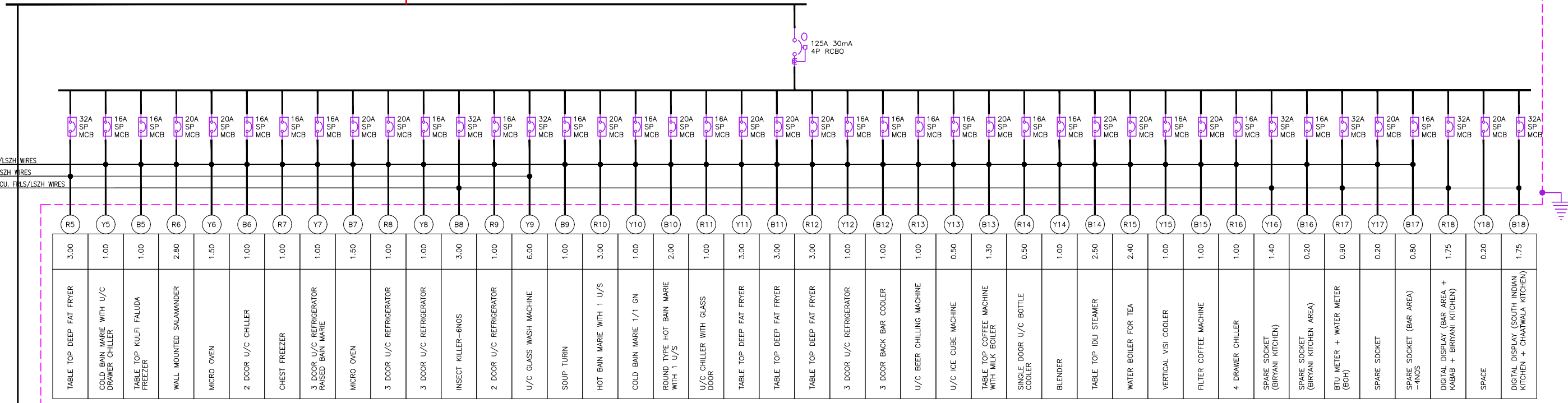
ALL DIMENSIONS MUST BE CHECKED ON SITE.  
INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

NOTES:  
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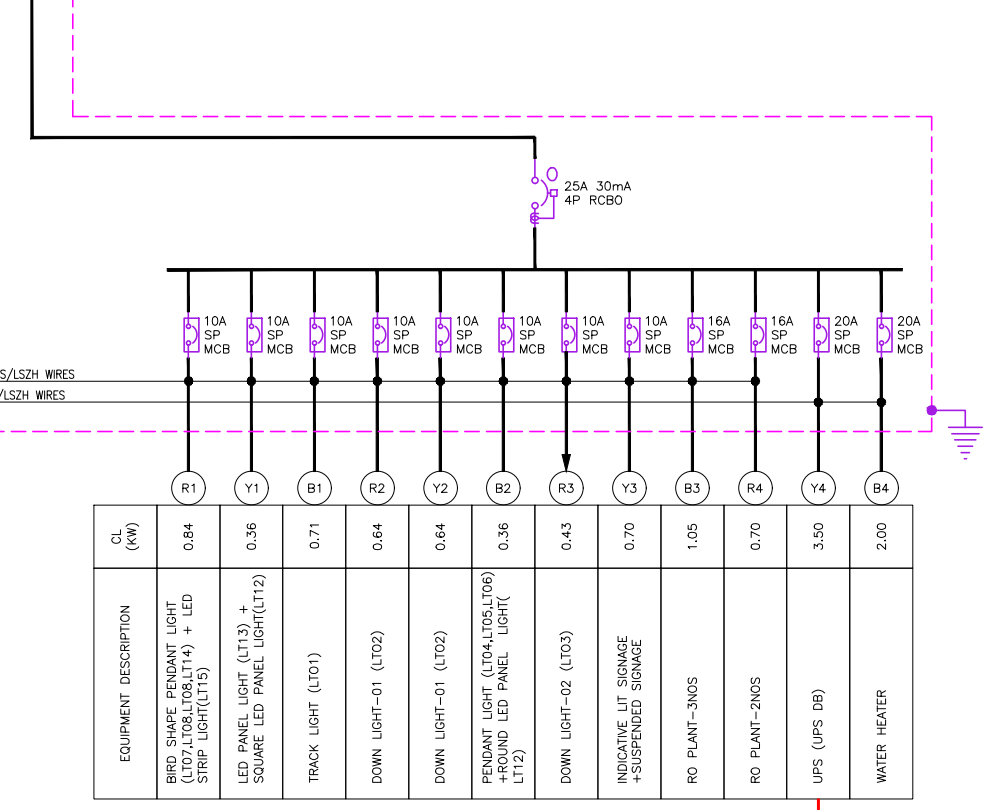
FOR LEGENDS & NOTES REFER  
DRAWING TFS-0000-ELEC E201

LPDB	
CONN. LOAD (kW)	76.13
DEMAND LOAD (kW)	57.20

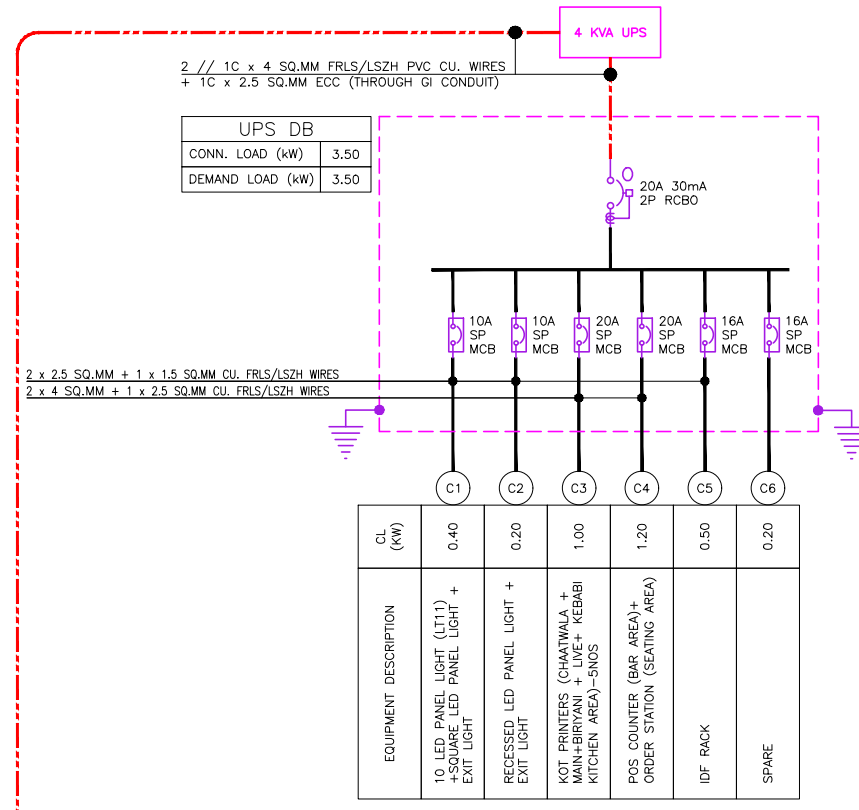
2 x 4 SQ.MM + 1 x 2.5 SQ.MM CU. FRLS/LSZH WIRES  
2 x 6 SQ.MM + 1 x 4 SQ.MM CU. FRLS/LSZH WIRES  
2 x 2 x 4 SQ.MM + 2 x 1 x 2.5 SQ.MM CU. FRLS/LSZH WIRES



2 x 2.5 SQ.MM + 1 x 1.5 SQ.MM CU. FRLS/LSZH WIRES  
2 x 4 SQ.MM + 1 x 2.5 SQ.MM CU. FRLS/LSZH WIRES



UPS DB	
CONN. LOAD (kW)	3.50
DEMAND LOAD (kW)	3.50



T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



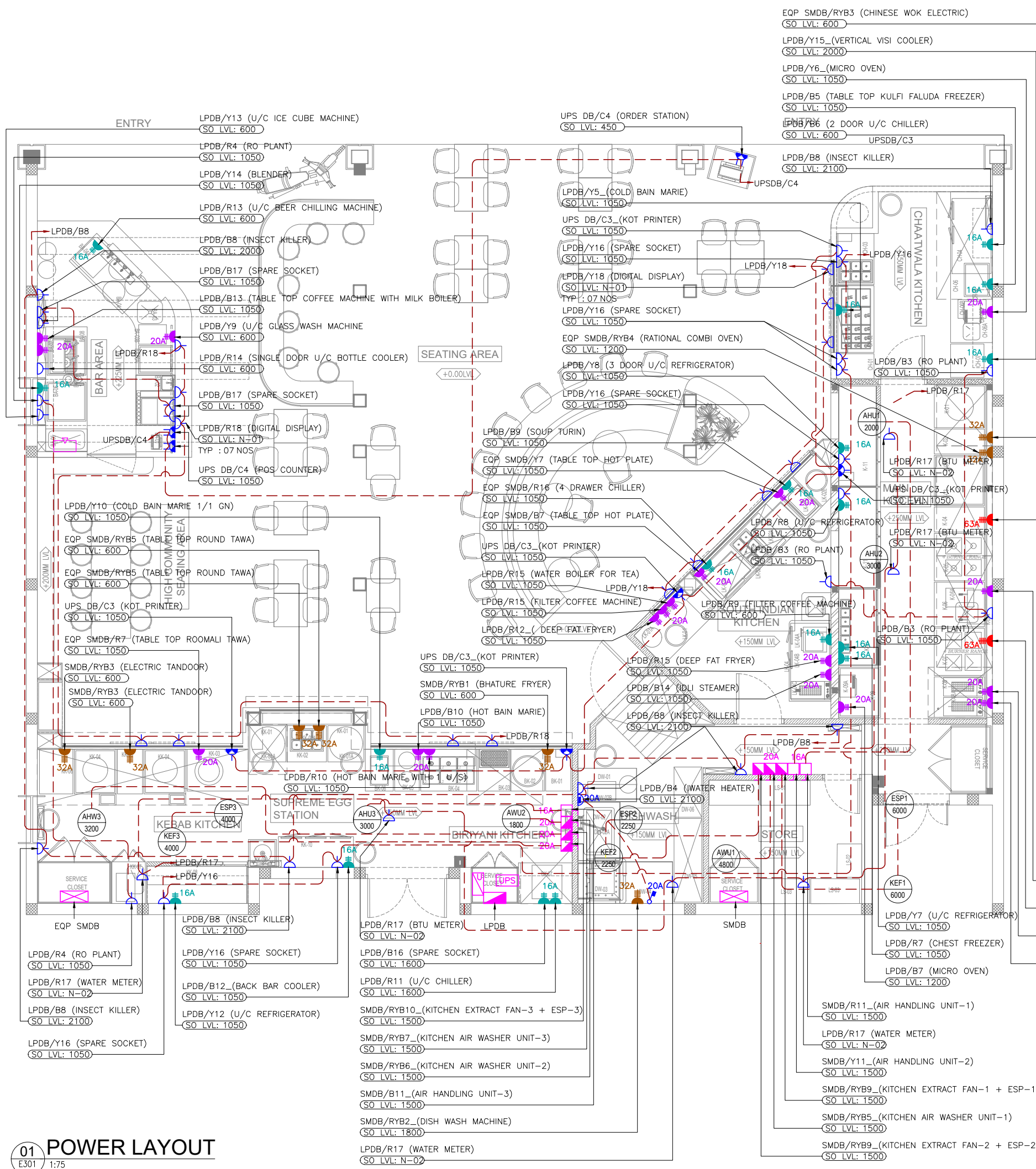
PROJECT  
DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI

DRAWING TITLE  
ELECTRICAL SLD  
LPDB & UPS DB (STORE-4)  
SHEET 2 OF 2

SCALE NTS DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
TENDER

ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 ELEC E202 T00



### ELECTRICAL SYSTEM LEGEND

SYMBOL	DESCRIPTION	QTY
	13A SINGLE SWITCHED SOCKET OUTLET	46
	13A DUAL SWITCHED SOCKET OUTLET (UPS POWER)	03
	13A SINGLE SWITCHED SOCKET OUTLET (UPS POWER)	04
	SINGLE PHASE INDUSTRIAL SWITCHED SOCKET (3 PIN) (WALL MOUNTED)	18
	SINGLE PHASE INDUSTRIAL SWITCHED SOCKET (3 PIN) (WALL MOUNTED)	18
	THREE PHASE INDUSTRIAL SWITCHED SOCKET (5 PIN) (WALL MOUNTED)	02
	THREE PHASE INDUSTRIAL SWITCHED SOCKET (5 PIN) (WALL MOUNTED)	08
	UNSWITCHED FUSED CONNECTION OUTLET WITH-OUT NEON INDICATOR	01
	DOUBLE POLE SWITCH WITH NEON INDICATOR	01
	SINGLE PHASE ISOLATOR	03
	THREE PHASE ISOLATOR	06
	UPS DISTRIBUTION BOARD (SINGLE PHASE)	01
	SUB MAIN DISTRIBUTION BOARD (SMDB)	02
	DISTRIBUTION BOARD (THREE PHASE)	01
	UNINTERRUPTIBLE POWER SUPPLY (IN-BUILT BATTERY)	01
	ELECTRICAL POWER CIRCUIT	--

**NOTES**

- ALL DIMENSIONS & LEVEL ARE IN "MM" OR OTHERWISE SPECIFIED. LEVELS MARKED ARE FROM 0.00 FFL.
- SOCKETS PROVIDED NEAR WET AREAS SHALL BE AT LEAST 1.2 MTR AWAY FROM WATER SOURCE AND IP66 RATED.
- A DISTANCE OF MINIMUM 300MM TO BE MAINTAINED BETWEEN POWER AND ELV SYSTEM / COMMUNICATION CABLES.
- ALL CIRCUITS IN DB ARE TO BE TAGGED. MCB/MCCB IS TO BE LABELED & LAMINATED SLD TO BE PLACED NEAR TO ELECTRICAL PANELS.
- SOCKET ELEVATIONS SHOWN IN THE DRAWING IS DESIGN INDICATIVE. THE CONTRACTOR NEEDS TO FIELD VERIFY AT THE SITE AND INTEGRATE IT TO MATCH WITH THE ID DESIGN & ACTUAL EQUIPMENT REQUIREMENTS.
- SHUTTER TYPE SWITCH SOCKET OUTLET ON SUITABLE MS BOX SHALL BE USED WITH PROPER EARTHING.
- ALL ELECTRICAL EQUIPMENT SHALL BE PROPER EARTHED AND CONNECTED TO MAIN EARTHING WITH SUITABLY SIZED EARTHING CONDUCTOR.
- ALL SWITCH / SOCKET / DATA OUTLET PLATE COLOUR / FINISH TO BE MATCH WITH ARCHITECTURAL LAYOUT & ARCHITECT APPROVAL TO BE TAKEN PRIOR TO PRODUCT PROCUREMENT.
- ALL CABLES & WIRES TO BE FRLSH/FRLSZH.
- AUTOMATIC CO2 SYSTEM TO BE INSTALLED (FIRE EXTINGUISHER LAYOUT-F301).
- N-01: SOCKET OUTLETS TO BE FIXED WITH TV INSTALLATION FRAME / ROD.
- N-02: SOCKET OUTLETS TO BE ABOVE CEILING

- EQP SMDB/R16 (4 DRAWER CHILLER) (SO LVL: 1050)
- EQP SMDB/B7 (TABLE TOP HOT PLATE) (SO LVL: 1050)
- UPS DB/C3 (KOT PRINTER) (SO LVL: 1050)
- LPDB/R15 (WATER BOILER FOR TEA) (SO LVL: 1050)
- LPDB/R15 (FILTER COFFEE MACHINE) (SO LVL: 1050)
- LPDB/R12 (DEEP FAT FRYER) (SO LVL: 1050)
- UPS DB/C3 (KOT PRINTER) (SO LVL: 1050)
- SMDB/R16 (HOT BAIN MARIE) (SO LVL: 1050)
- LPDB/R10 (HOT BAIN MARIE WITH 1 U/S) (SO LVL: 1050)
- LPDB/R17 (BTU METER) (SO LVL: N-02)
- LPDB/B16 (SPARE SOCKET) (SO LVL: 1600)
- LPDB/R11 (U/C CHILLER) (SO LVL: 1600)
- SMDB/R11 (AIR HANDLING UNIT-1) (SO LVL: 1500)
- LPDB/R17 (WATER METER) (SO LVL: N-02)
- SMDB/Y11 (AIR HANDLING UNIT-2) (SO LVL: 1500)
- SMDB/R11 (AIR HANDLING UNIT-3) (SO LVL: 1500)
- SMDB/R19 (KITCHEN EXTRACT FAN-1 + ESP-1) (SO LVL: 1500)
- SMDB/R19 (KITCHEN EXTRACT FAN-2 + ESP-2) (SO LVL: 1500)
- SMDB/R19 (KITCHEN EXTRACT FAN-3 + ESP-3) (SO LVL: 1500)
- SMDB/R19 (KITCHEN AIR WASHER UNIT-1) (SO LVL: 1500)
- SMDB/R19 (KITCHEN AIR WASHER UNIT-2) (SO LVL: 1500)
- SMDB/R19 (KITCHEN AIR WASHER UNIT-3) (SO LVL: 1500)
- SMDB/R19 (DISH WASH MACHINE) (SO LVL: 1800)
- LPDB/R17 (WATER METER) (SO LVL: N-02)
- EQP SMDB/R16 (4 BURNER COOKING RANGE) (SO LVL: 600)
- LPDB/R6 (WALL MOUNTED SALAMANDER) (SO LVL: 600)
- EQP SMDB/R16 (4 BURNER COOKING RANGE) (SO LVL: 600)
- LPDB/Y7 (U/C REFRIGERATOR) (SO LVL: 1050)
- LPDB/R7 (CHEST FREEZER) (SO LVL: 1050)
- LPDB/B7 (MICRO OVEN) (SO LVL: 1200)

ALL DIMENSIONS MUST BE CHECKED ON SITE.  
INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

NOTES:  
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TOO	09.01.24	ISSUED FOR TENDER	AK	VJ
REV	DATE	DESCRIPTION	DRN	CHK



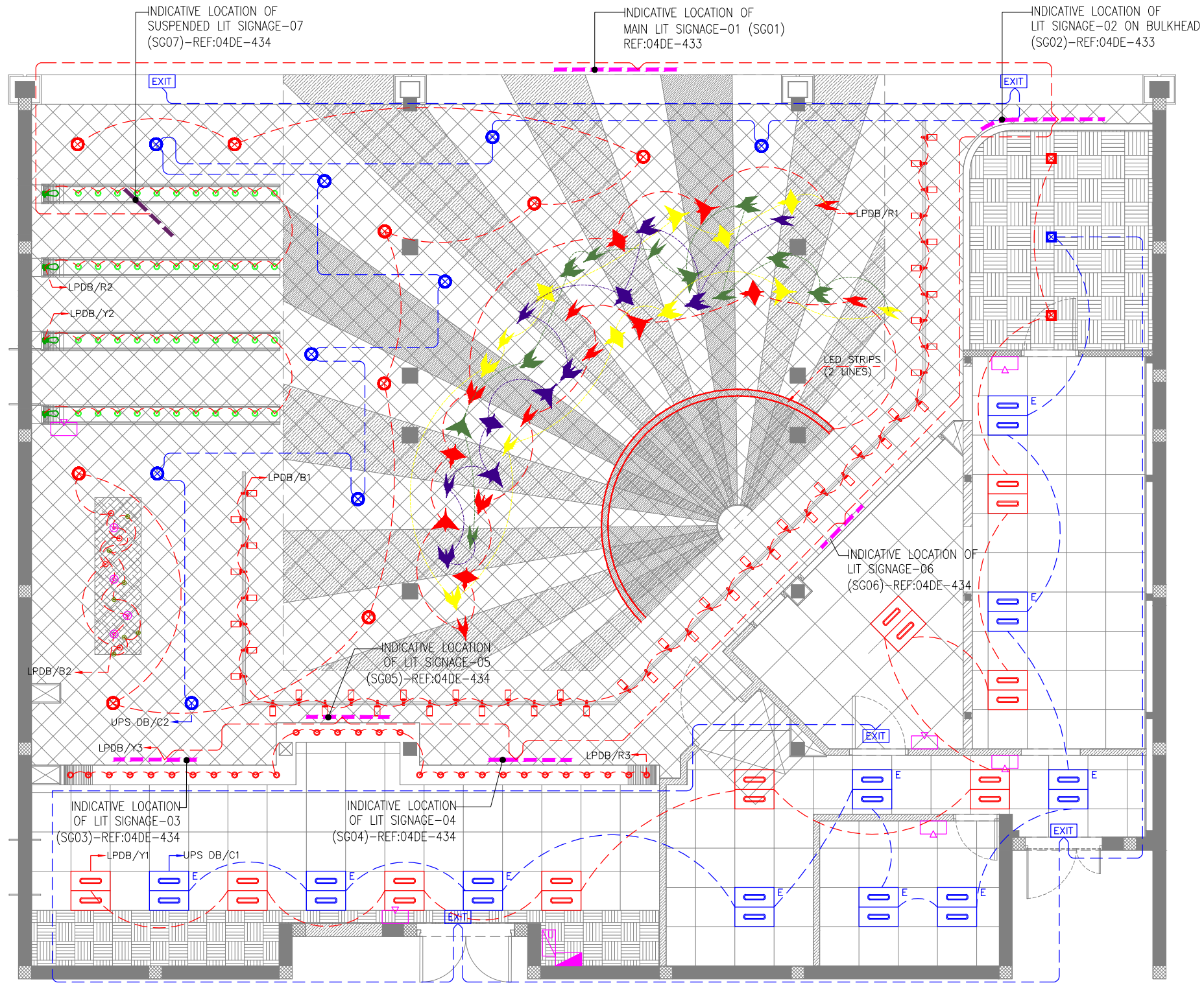
PROJECT  
**DILLI STREET  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI**

DRAWING TITLE  
**POWER LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 ELEC E301 T00**



LIGHTING LEGEND				
SYMBOL	DESCRIPTION	CODE	WATTS	QTY
	TRACK LIGHT	LT01	15	47
	DOWN LIGHT-01	LT02	20	64
	DOWN LIGHT-02	LT03	12	36
	PENDANT LIGHT-01	LT04	12	04
	PENDANT LIGHT-02	LT05	12	04
	PENDANT LIGHT-03	LT06	12	07
	BIRD SHAPE PENDANT LIGHT-01	LT07	15	11
	BIRD SHAPE PENDANT LIGHT-01	LT08	15	12
	BIRD SHAPE PENDANT LIGHT-01	LT09	15	11
	BIRD SHAPE PENDANT LIGHT-01	LT010	15	15
	600 x 600mm LED PANEL LIGHT TEMP: 4000K	LT13	36	09
	SQUARE LED PANEL LIGHT	LT12	20	02
	ROUND LED PANEL LIGHT	LT13	20	09
	LED STRIP LIGHT	LT14	8W/M	12.77 M
	INDICATIVE LIT SUSPENDED SIGNAGE	--	100	01
	INDICATIVE LIT SIGNAGE	--	100	06
	EMERGENCY 600 x 600mm LED PANEL LIGHT TEMP: 4000K	LT13	36	10
	EMERGENCY SQUARE LED PANEL LIGHT	LT12	20	01
	EMERGENCY ROUND LED PANEL LIGHT	LT13	20	09
	EXIT LIGHT (WALL / CEILING MOUNTED)	--	08	05
	LIGHTING CONTROL SWITCH POINT			06
	UPS DISTRIBUTION BOARD (SINGLE PHASE)			01
	DISTRIBUTION BOARD (THREE PHASE)			01
	LIGHTING NORMAL CIRCUIT	--		
	LIGHTING EMERGENCY CIRCUIT	--		

**NOTES**

- ALL DIMENSIONS & LEVEL ARE IN "MM" OR OTHERWISE SPECIFIED. LEVELS MARKED ARE FROM 0.00 FFL.
- N-01: WALL POINTS TO BE COORDINATE WITH ELEVATION OF DISPLAY UNITS.
- N-02: WALL LIGHT POINT TO BE COORDINATED WITH DISPLAY IN ELEVATION.
- FINAL LOCATION OF LIGHT FIXTURES TO BE FOLLOWED AS PER ARCHITECT LAYOUT.
- REFER ARCHITECTURAL DETAIL LAYOUT FOR DECORATIVE TYPE LIGHT FIXTURES.
- ALL SWITCH / SOCKET / DATA OUTLET PLATE COLOUR / FINISH TO BE MATCH WITH ARCHITECTURAL LAYOUT & ARCHITECT APPROVAL TO BE TAKEN PRIOR TO PRODUCT PROCUREMENT.

ALL DIMENSIONS MUST BE CHECKED ON SITE. INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

NOTES: IRRESPECTIVE OF THE DRAWING(S), IT IS THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY THAT SHALL BE EXECUTED AND COMPLETED IN ACCORDANCE TO THE SPECIFICATION, DRAWING(S) AS WELL AS REQUIREMENT. THE SAID DRAWING(S) SHALL NOT RELIEVE CONTRACTOR FROM ITS OBLIGATION UNDER THE CONTRACT AND IN PARTICULAR FROM ITS RESPONSIBILITY IN RELATION TO THE INSTALLATION MATERIALS AND WORKMANSHIP AND WHERE RELEVANT FROM A DUTY TO SEEK APPROVAL FROM THE COMPETENT AUTHORITY.

T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



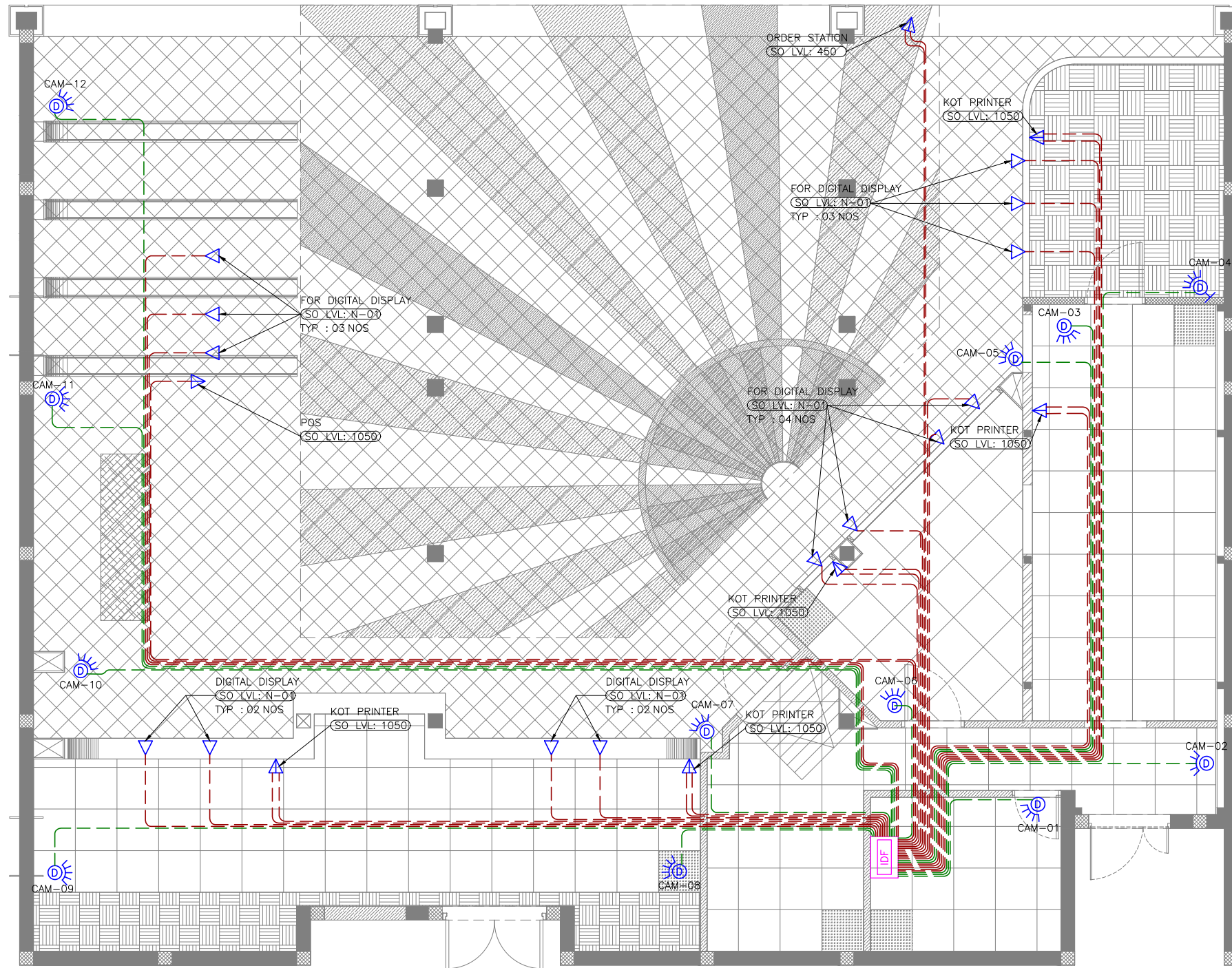
PROJECT  
DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI

DRAWING TITLE  
LIGHTING LAYOUT

SCALE 1:75 DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
TENDER

ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 ELEC E401 T00



ELECTRICAL LOW VOLTAGE SYSTEM LEGEND		
SYMBOL	DESCRIPTION	QTY
	DOMI CCTV CAMERA – IP67 CEILING MOUNT	11
	DOMI CCTV CAMERA – IP67 WALL MOUNT	01
	DUAL DATA OUTLET (RJ45)	07
	SINGLE DATA OUTLET (RJ45)	14
	INTERMEDIATE DISTRIBUTION FRAME (DATA & CCTV NETWORK)	01
	CCTV CABLE	--
	DATA SYSTEM CABLE	--

**NOTES**

- ALL DIMENSIONS & LEVEL ARE IN "MM" OR OTHERWISE SPECIFIED. LEVELS MARKED ARE FROM 0.00 FFL.
- CCTV TO BE FIXED TO CEILING COORDINATING WITH LIGHTS, SPRINKLERS AND FIRE ALARM DETECTORS TO AVOID CLASHES.
- GI CONDUIT WITH SUITABLE DIAMETER TO BE USED FOR CCTV CABLES.
- THE CABLE ROUTING SHOWN IN THE DIAGRAM IS INDICATIVE ONLY. ACTUAL ROUTING IS TO BE DONE AS PER SITE CONDITION AND ALSO COORDINATE WITH OTHER SERVICES.
- ONLY FIXED TYPE CAMERA SHALL BE USED. NO PAN / TILT TYPE CAMERA IS ALLOWED.
- BACKUP SHOULD BE 45 DAYS.
- ALL SWITCH / SOCKET / DATA OUTLET PLATE COLOUR / FINISH TO BE MATCH WITH ARCHITECTURAL LAYOUT & ARCHITECT APPROVAL TO BE TAKEN PRIOR TO PRODUCT PROCUREMENT.
- CONTRACTOR TO FOLLOW AIRPORT MEP GUIDELINES FOR MATERIAL MAKE, SPECIFICATION AND ACTIVATION PROCESS.
- N-01: SOCKET OUTLETS TO BE FIXED WITH TV INSTALLATION FRAME / ROD.

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T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



PROJECT  
**DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

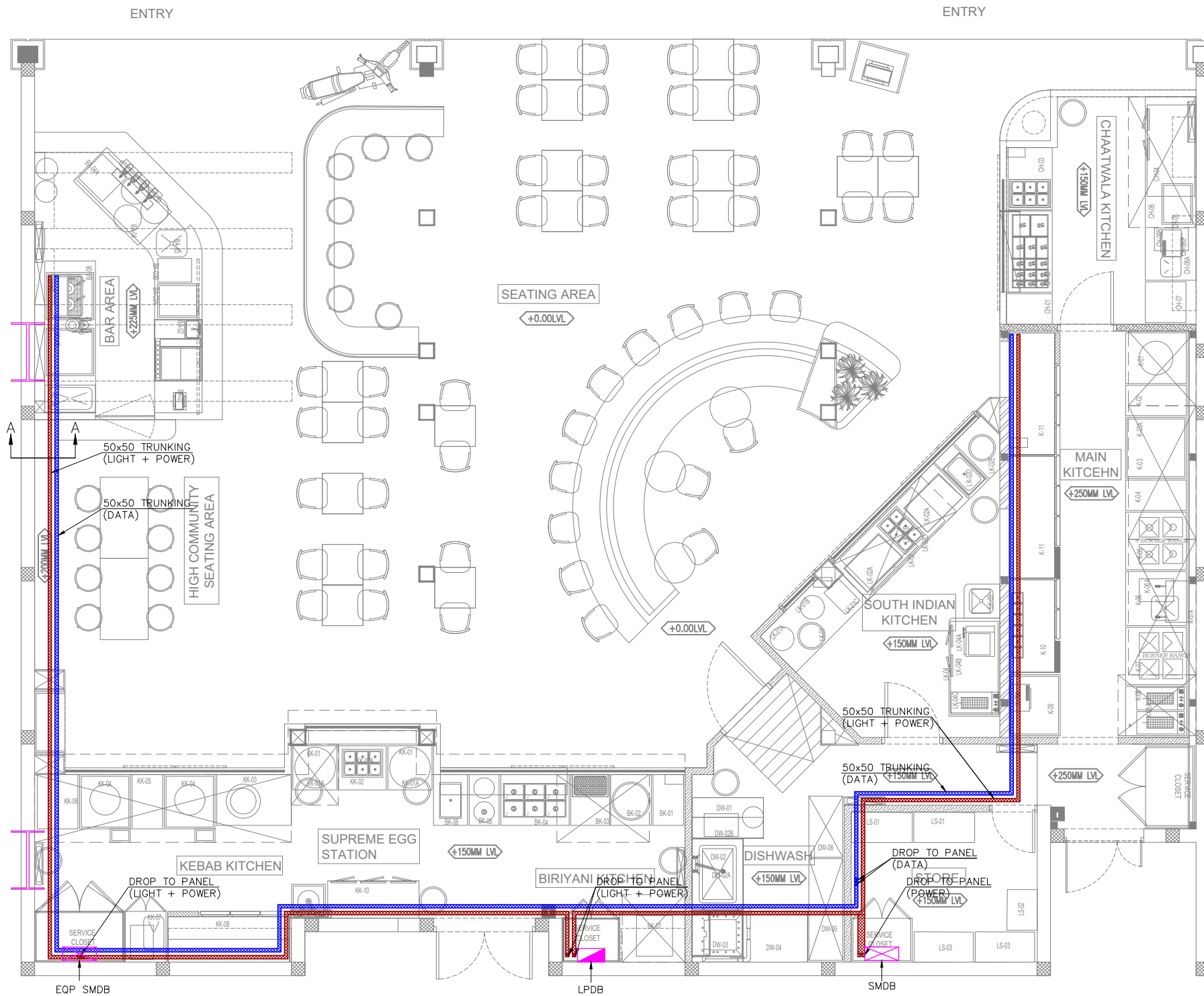
DRAWING TITLE  
**CCTV & DATA LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN AK A3 SHEET

STATUS  
**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 ELEC E501 T00**





RACEWAY / CONTAINMENT LEGEND		
SYMBOL	DESCRIPTION	QTY
	CABLE TRAY	--
	CABLE TRUNKING (LIGHTING & POWER)	--
	CABLE TRUNKING (ELV SYSTEM)	--
	SMDB - SUB MAIN DISTRIBUTION BOARD	--
	LPDB - LIGHTING & POWER DISTRIBUTION BOARD	--
	INTERMEDIATE DISTRIBUTION FRAME (ELV SYSTEM)	--

- NOTES**
- ALL DIMENSIONS & LEVEL ARE IN "MM" OR OTHERWISE MENTIONED.
  - GI CONDUITS OF SUITABLE DIAMETER TO BE USED FOR ALL CCTV CABLING BETWEEN CAMERA & IDF RACK.
  - HEAVY DUTY PVC CONDUITS OF SUITABLE DIAMETER TO BE USED FOR ALL LIGHTING & POWER CABLING THROUGH FLOOR SCREED / WALL.
  - THE CONTRACTOR IS EXPECTED TO DEVELOP THE ACTUAL ROUTING DETAILS OF THESE AT SITE BASED ON SITE CONDITION. IT IS IMPORTANT TO ENSURE THAT THESE SERVICES ARE NOT VISIBLE TO CUSTOMERS, CAN BE ACCESSED IN FUTURE FOR MAINTENANCE AND ARE NOT DETRIMENTAL TO THE UNIT.
  - PVC CONDUITS OF SUITABLE DIAMETER THROUGH FLOOR SCREED TO BE USED FOR LIGHTING, POWER & DATA POINTS TO DB & IDF RACK.
  - CABLE TRAY & TRUNKING ROUTES ARE INDICATIVE ONLY, TO BE COORDINATED WITH OTHER SERVICES.
  - CONTRACTOR TO FOLLOW AIRPORT MEP GUIDELINES FOR MATERIAL MAKE & SPECIFICATION.

- ABBREVIATIONS**
- BOC - BOTTOM OF CABLE TRAY
  - BOT - BOTTOM OF CABLE TRUNKING

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T00 09.01.24 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



PROJECT  
DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI

DRAWING TITLE  
CONTAINMENT LAYOUT

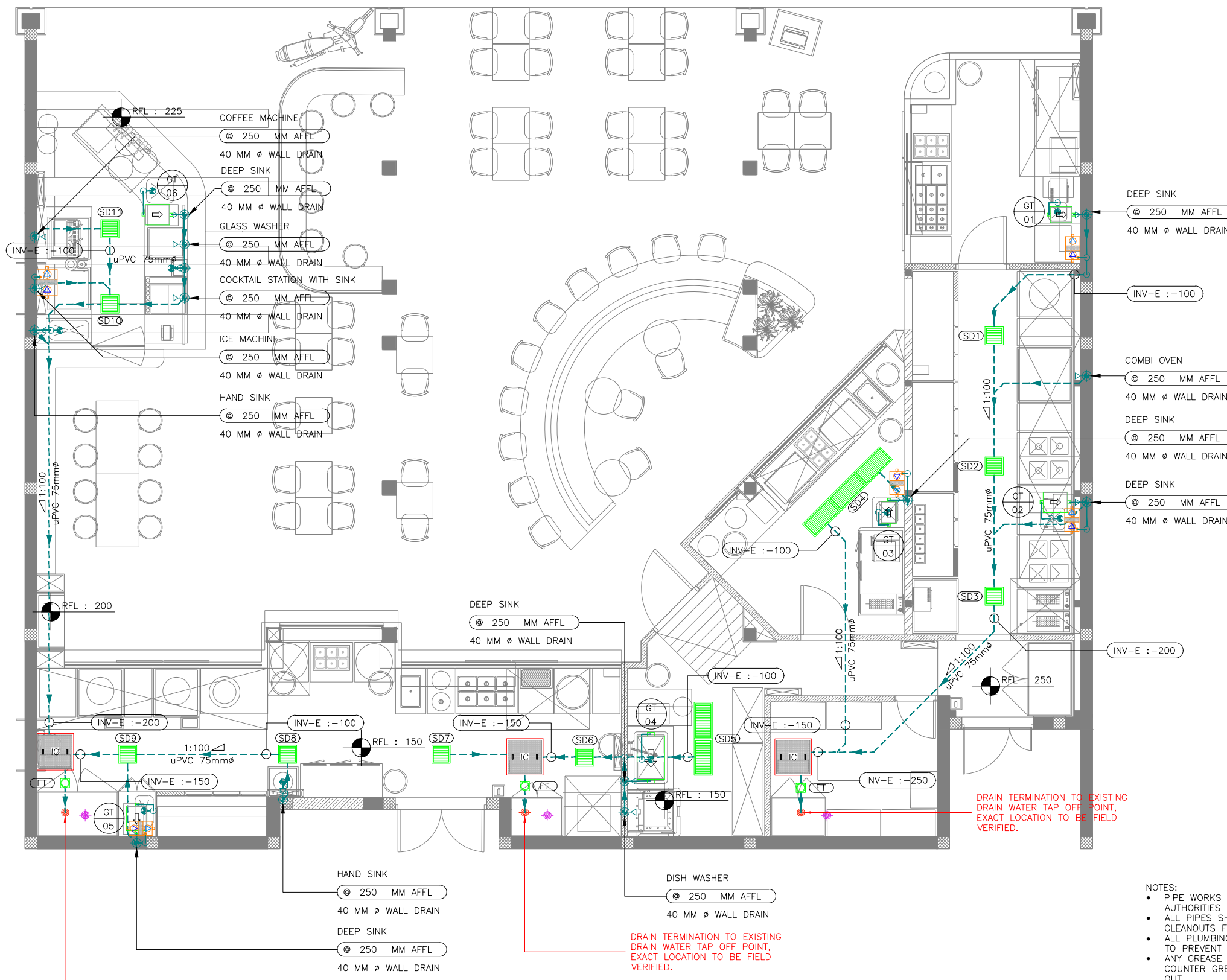
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STATUS  
TENDER

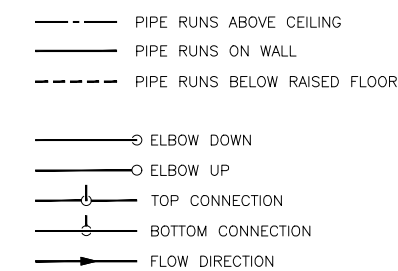
ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 ELEC E601 T00

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PLUMBING DRAINAGE SYSTEM LEGEND	
SYMBOL	DESCRIPTION
	WASTE WATER PIPE
	WASTE VENT PIPE
	FLOOR DRAIN TERMINATION PIPE UP-STAND AFFL - FDP
	WASTE DRAIN TERMINATION ON WALL - WD
	FLOOR TRAP - FT
	P - TRAP
	SCUPPER DRAIN
	GREASE TRAP / GREASE INTERCEPTOR - GT
	WASTE WATER PIPE TAP OFF POINT
	AIR ADMITTANCE VALVE - AAV
	INSPECTION CHAMBER - IC



T00 09.01.24 ISSUED FOR TENDER HS MB  
REV DATE DESCRIPTION DRN CHK



PROJECT  
**DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**DRAINAGE LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN HS A3 SHEET

STATUS  
**TENDER**

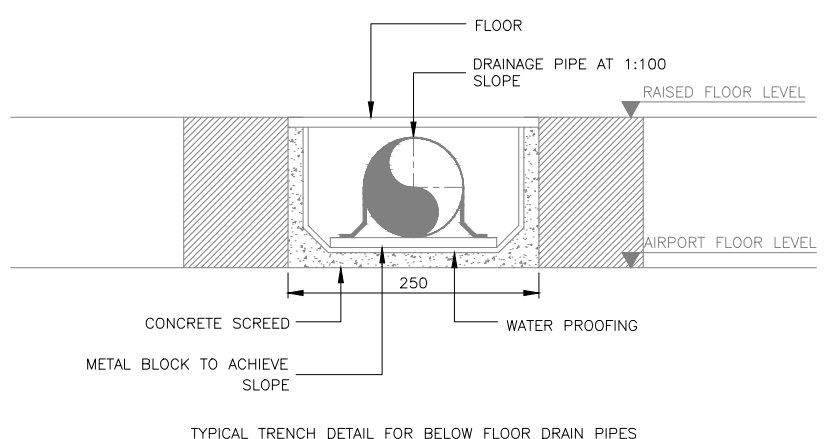
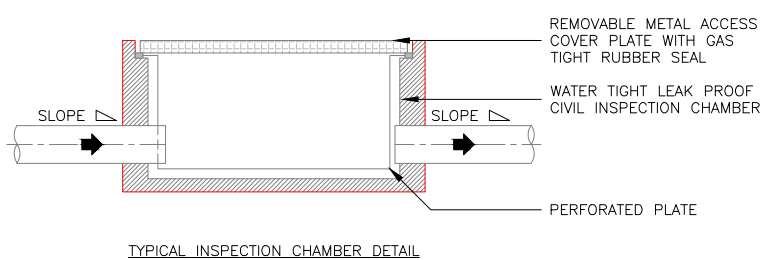
ORG PROJECT NO DRAWING TYPE NUMBER REV  
**TFS 0000 ELEC E401 T00**

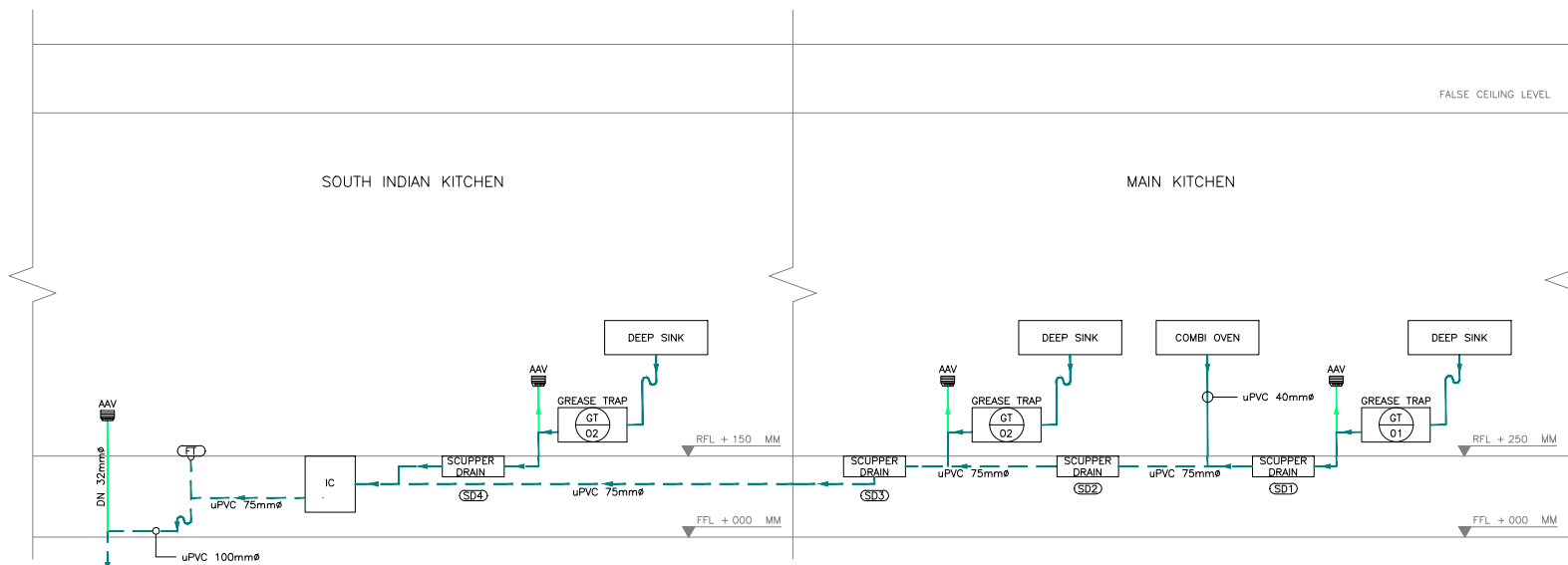
- NOTES:
- PIPE WORKS AND FITTINGS SHALL COMPLY WITH THE DRAWINGS AND LOCAL AUTHORITIES REQUIREMENTS.
  - ALL PIPES SHALL BE SUITABLY SUPPORTED AND PROVIDED WITH CLEANOUTS FOR RODDING.
  - ALL PLUMBING FIXTURES & DRAIN SHOULD HAVE SUITABLE WATER TRAPS TO PREVENT THE ESCAPE OF FOUL AIR INTO THE BUILDING.
  - ANY GREASE GENERATING FIXTURE SHALL BE CONNECTED TO UNDER COUNTER GREASE INTERCEPTOR BEFORE CONNECTING TO BASE BUILD STUB OUT.
  - DRAIN SLOPE MAY VARIES DEPENDING UPON SITE CONDITION AND TO MATCH WITH THE FLOOR RISE PROVIDED BY THE ARCHITECT.
  - RAISED FLOOR APPROVALS (IF ANY) TO BE OBTAINED ON ARCHITECTURAL DESIGN REVIEW.
  - RUNNING THE SERVICES ALONG THE WALLS OF THE FRONT/ BACK COUNTER
  - IF THE SERVICES HAVE TO RUN ON THE FLOOR, THEN CHIPPING EXISTING FLOOR AND SUBMERGING SERVICES UNDERNEATH (IF ALLOWED BY AIRPORT).
  - ALL THE DRAINAGE PIPE WORK SHALL BE OF UPVC TYPE-A.
  - KINDLY USE THE IS STANDARD 4985 DRAINAGE PIPE CLASS B OR C.
  - KINDLY INCORPORATED THE 75MM/100MM UPVC DRAIN PIPE IN PLACE OF 50MM FOR GREASE LINE
  - WATER PROOFING FOR WET & DRY TO BE DONE AS PER TDM/DIAL GUIDELINE.
  - DRAIN LINE TESTING TO BE DONE, BEFORE CONNECTION WITH DIAL TAPPING POINT.
  - REQUIRED JB/OPENABLE TRENCH COVER/GRATING/FLOOR TRAP/IC TO BE PROVIDED.
  - SPECIFICATION FOR DRAIN PIPE- UPVC IS:4985 CLASS 5 & IS:7834 CLASS 5 FOR FITTINGS, UPVC SOLVENT- ASTM D-2564, MAKES - ASTRAL/SUPREME FOR PIPE AND FITTINGS.
  - SIZE OF IC SHOULD NOT BE LESS THAN 600MMX600MM. S.S. GRATING WITH DIA 5MM HOLES SHOULD BE PERMANENTLY WELDED INSIDE IC AT DISCHARGE END.
  - MATERIAL INSPECTION TO BE DONE BEFORE ONSITE INSTALLATION WORK.

DRAIN TERMINATION TO EXISTING DRAIN WATER TAP OFF POINT, EXACT LOCATION TO BE FIELD VERIFIED.

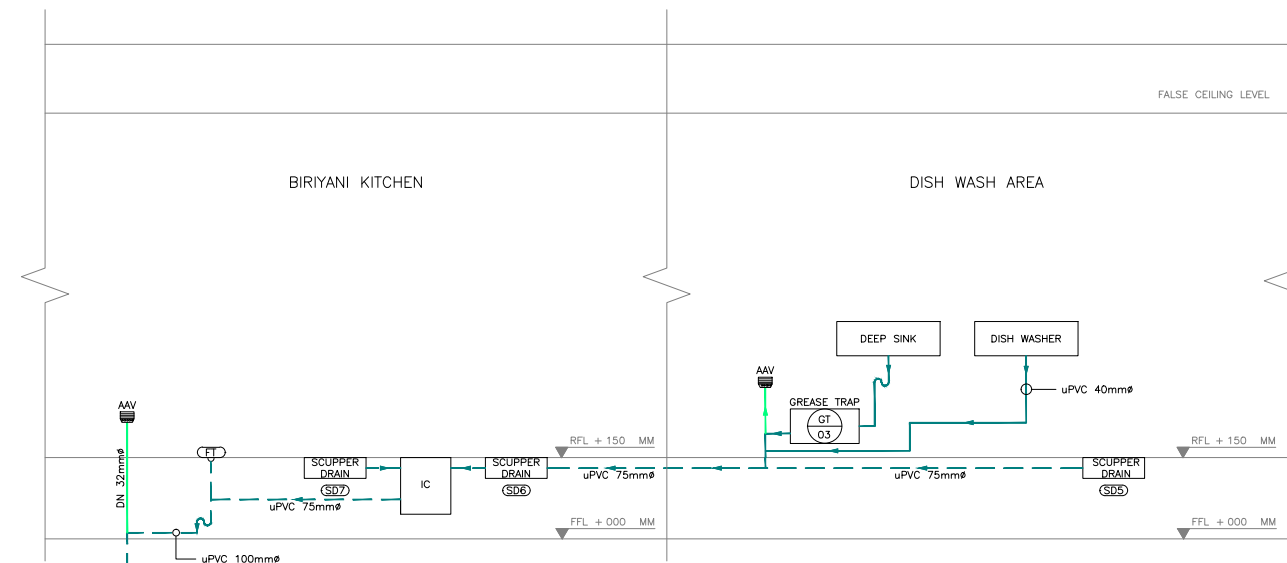
DRAIN TERMINATION TO EXISTING DRAIN WATER TAP OFF POINT, EXACT LOCATION TO BE FIELD VERIFIED.

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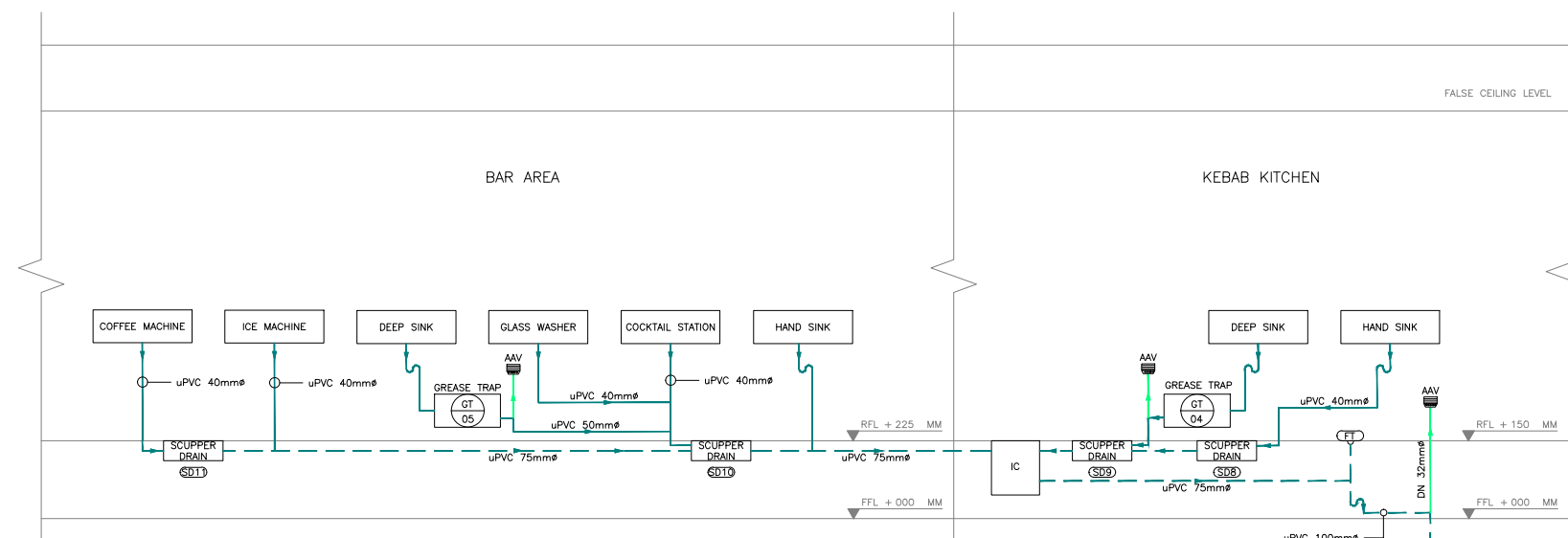




DRAIN TERMINATION TO EXISTING DRAIN WATER TAP OFF POINT, EXACT LOCATION TO BE FIELD VERIFIED.



DRAIN TERMINATION TO EXISTING DRAIN WATER TAP OFF POINT, EXACT LOCATION TO BE FIELD VERIFIED.



DRAIN TERMINATION TO EXISTING DRAIN WATER TAP OFF POINT, EXACT LOCATION TO BE FIELD VERIFIED.

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- PIPE RUNS ABOVE CEILING
- PIPE RUNS ON WALL
- PIPE RUNS BELOW RAISED FLOOR

T00	09.01.24	ISSUED FOR TENDER	HS	MB
REV	DATE	DESCRIPTION	DRN	CHK



PROJECT  
**DILLI STREET**  
**L5 LEVEL**  
**T1 , IGI AIRPORT**  
**DELHI**

DRAWING TITLE  
**DRAINAGE SCHEMATIC LAYOUT**

SCALE	DATE	DRAWN	A3
NTS	09.01.24	HS	SHEET

STATUS  
**TENDER**

ORG	PROJECT NO	DRAWING TYPE	NUMBER	REV
TFS	0000	ELEC	E401	T00

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PLUMBING WATER SUPPLY SYSTEM LEGEND	
SYMBOL	DESCRIPTION
	COLD WATER SUPPLY PIPE
	FILTERED/RO WATER SUPPLY PIPE
	HOT WATER SUPPLY PIPE
	COLD WATER SUPPLY INLET WITH ANGLE VALVE
	FILTERED/RO WATER SUPPLY INLET WITH ANGLE VALVE
	HOT WATER SUPPLY INLET WITH ANGLE VALVE
	EXISTING WATER METER
	WATER HEATER - 30L
	RO WATER PURIFIER
	BALL VALVE - BV

CW - COLD WATER  
FWS - FILTERED WATER SUPPLY  
HWS - HOT WATER SUPPLY  
C/W - CONTINUED WITH

--- PIPE RUNS ABOVE CEILING  
--- PIPE RUNS ON WALL  
--- PIPE RUNS BELOW RAISED FLOOR  
--- CWS - COLD WATER SUPPLY  
--- FWS - FILTER WATER SUPPLY  
--- HWS - HOT WATER SUPPLY

--- ELBOW DOWN  
--- ELBOW UP  
--- TOP CONNECTION  
--- BOTTOM CONNECTION  
--- FLOW DIRECTION

T00 09.01.24 ISSUED FOR TENDER HS MB  
REV DATE DESCRIPTION DRN CHK



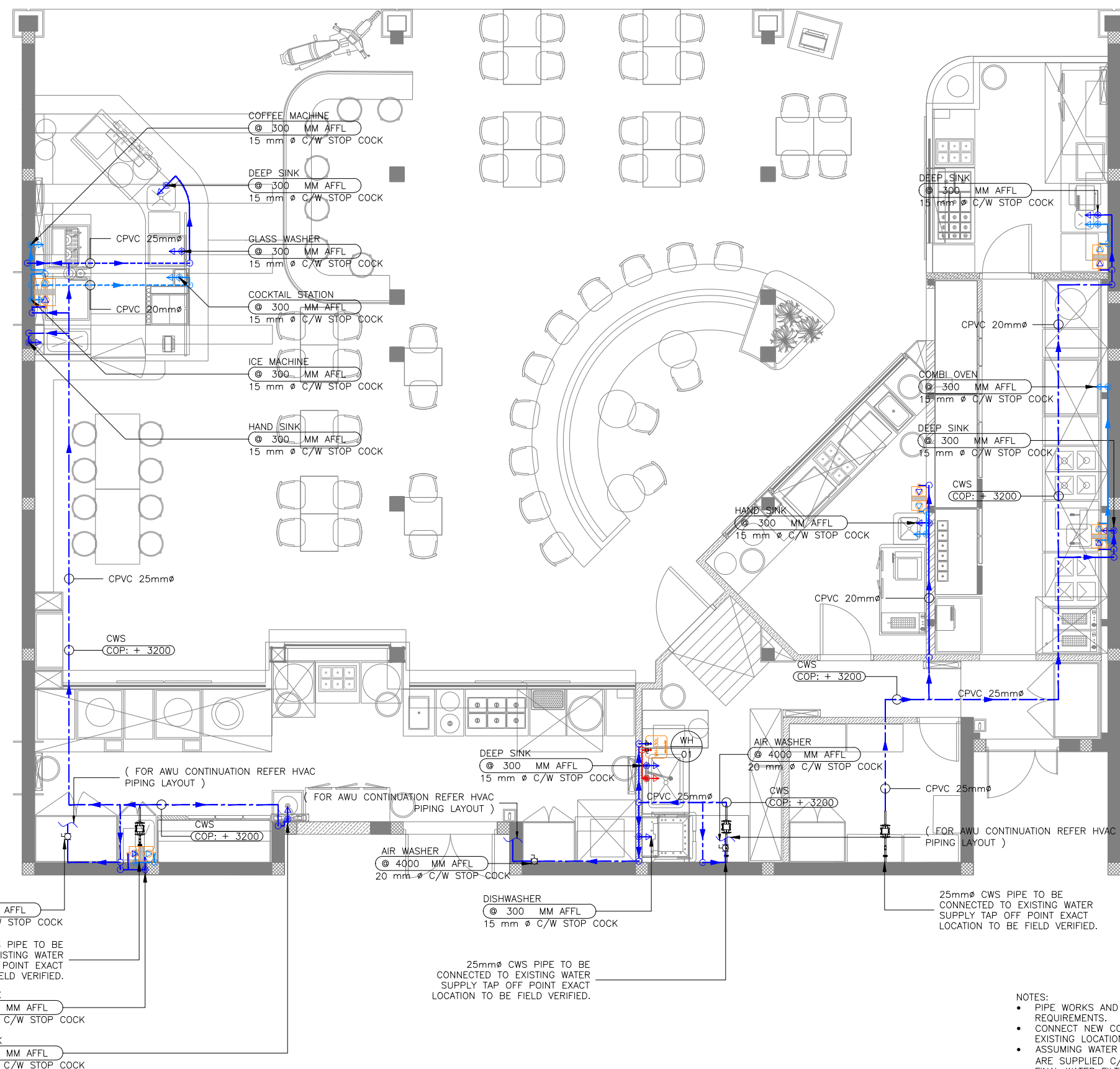
PROJECT  
**DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**WATER SUPPLY LAYOUT**

SCALE 1:75 DATE 09.01.24 DRAWN HS A3 SHEET

STATUS  
**TENDER**

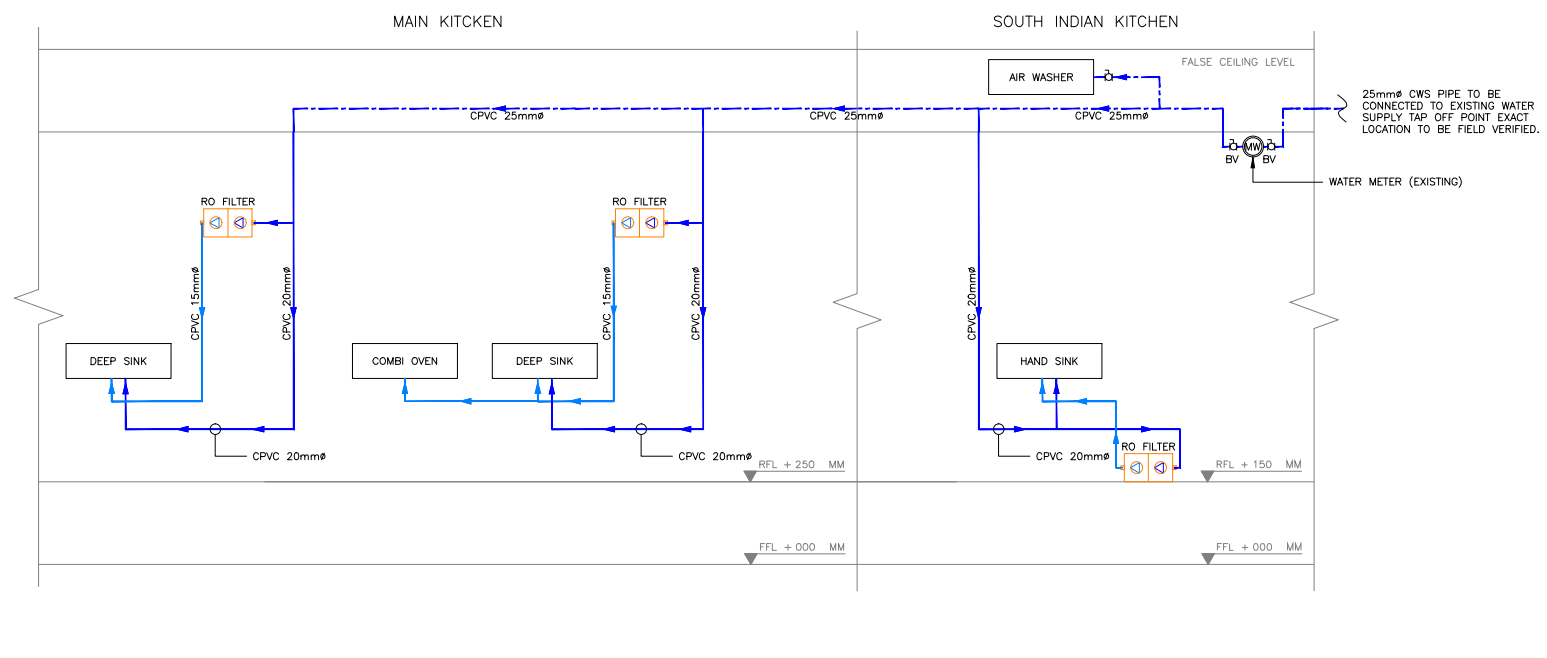
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**TFS 0000 ELEC E401 T00**



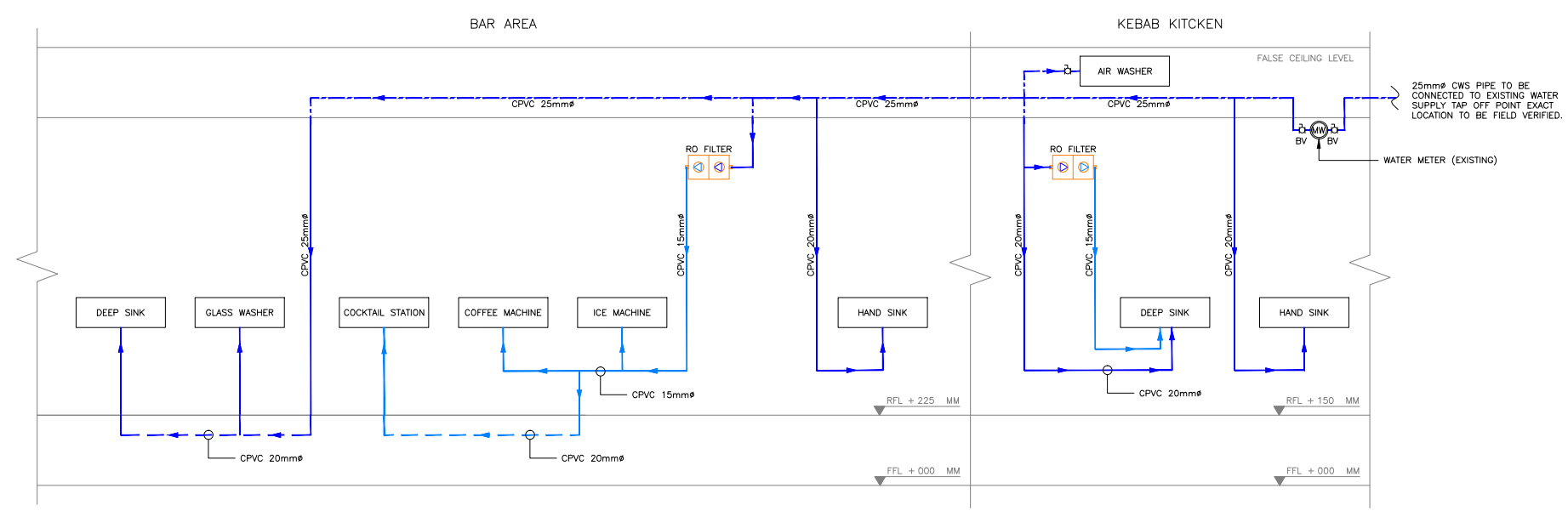
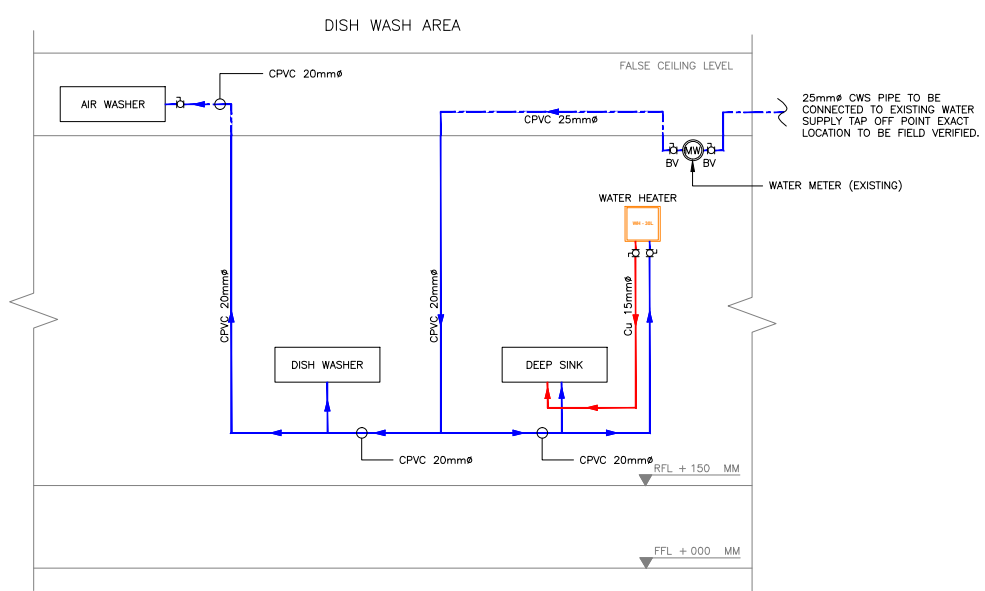
- NOTES:
- PIPE WORKS AND FITTINGS SHALL COMPLY WITH THE DRAWINGS AND LOCAL AUTHORITIES REQUIREMENTS.
  - CONNECT NEW COLD WATER PIPE TO EXISTING RISER LOCATED ON FLOOR LEVEL. FIELD VERIFY EXISTING LOCATION.
  - ASSUMING WATER SUPPLIED TO SITE IS QUALITY WATER THE EQUIPMENT REQUIRED RO WATER ARE SUPPLIED C/W WATER FILTRATION UNIT HOPING WATER SUPPLY HAVE ENOUGH PRESSURE.
  - FINAL WATER FILTRATION SYSTEMS, WILL BE DESIGNED BY SPECIALIST VENDORS.
  - PLEASE NOTE PIPE WORK AND EQUIPMENT MAY BE SHOWN DISPLACED FOR CLARITY.
  - HOT WATER PIPE INSULATION SHALL BE NITRILE INSULATION CLASS "O" CONFIRMING TO BS 476 PART 6&7 AS PER TDM.
  - RO SELECTION SHALL BE AS PER DIAL DOMESTIC WATER SUPPLY PROVIDED PARAMETERS WITH MAXIMUM RECOVERY OF RO TO ELIMINATE WASTAGE OF WATER.
  - WATER SUPPLY PIPE LAYING FOR FOH, SHOULD BE LAID IN NICHE WITH OPENABLE COVER, FOR BOH IT COULD BE EXPOSED.
  - SUPPLY LINE INSTALLATION CHECK & LEAKAGE TESTING TO BE DONE, BEFORE CONNECTION WITH DIAL TAPPING POINT.
  - FOR NORMAL WATER: SPECIFICATION FOR SUPPLY PIPE- 1) CPVC ASTM D-2846 SDR-11 CLASS-1, CPVC SOLVENT ASTM F-493.
  - FOR HOT WATER: COPPER PIPE EN 1057 WITH THERMAL INSULATION. THERMAL INSULATION SHALL BE CONFORMING TO BS 476 PART 6&7 FM APPROVED, FITTINGS BN-1254-1.
  - PIPE INSTALLATION IN WALLS (EXCEPT WASHROOM AND SHOWER ROOM) SHALL BE THROUGH NICHE WITH OPENABLE SS COVER.
  - ALL MATERIALS/ITEMS TO BE USED AT SITE ARE SUBJECTED TO PRIOR INSPECTION AND APPROVAL FROM DIAL ENGG. DATA SHEET WITH RESPECT TO ALL MATERIAL NEED TO BE SUBMITTED FOR PRIOR APPROVAL.
  - MAKE-ASTRAL/SUPREME FOR PIPE AND FITTINGS.
  - HYDRO-TESTING OF PIPE TO BE DONE AT A PRESSURE OF 15KGF/CM<sup>2</sup> FOR 24 HRS AND GET IT INSPECTED FROM DIAL- ENGG.
  - BEFORE CONNECTION WITH DIAL TAPPING POINT & TO GET THE WATER SUPPLY, WATER CONNECTION FORM TO BE SUBMITTED.

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- PIPE RUNS ABOVE CEILING
- PIPE RUNS ON WALL
- PIPE RUNS BELOW RAISED FLOOR
- CWS – COLD WATER SUPPLY
- FWS – FILTER WATER SUPPLY
- HWS – HOT WATER SUPPLY



T00	09.01.24	ISSUED FOR TENDER	HS	MB
REV	DATE	DESCRIPTION	DRN	CHK



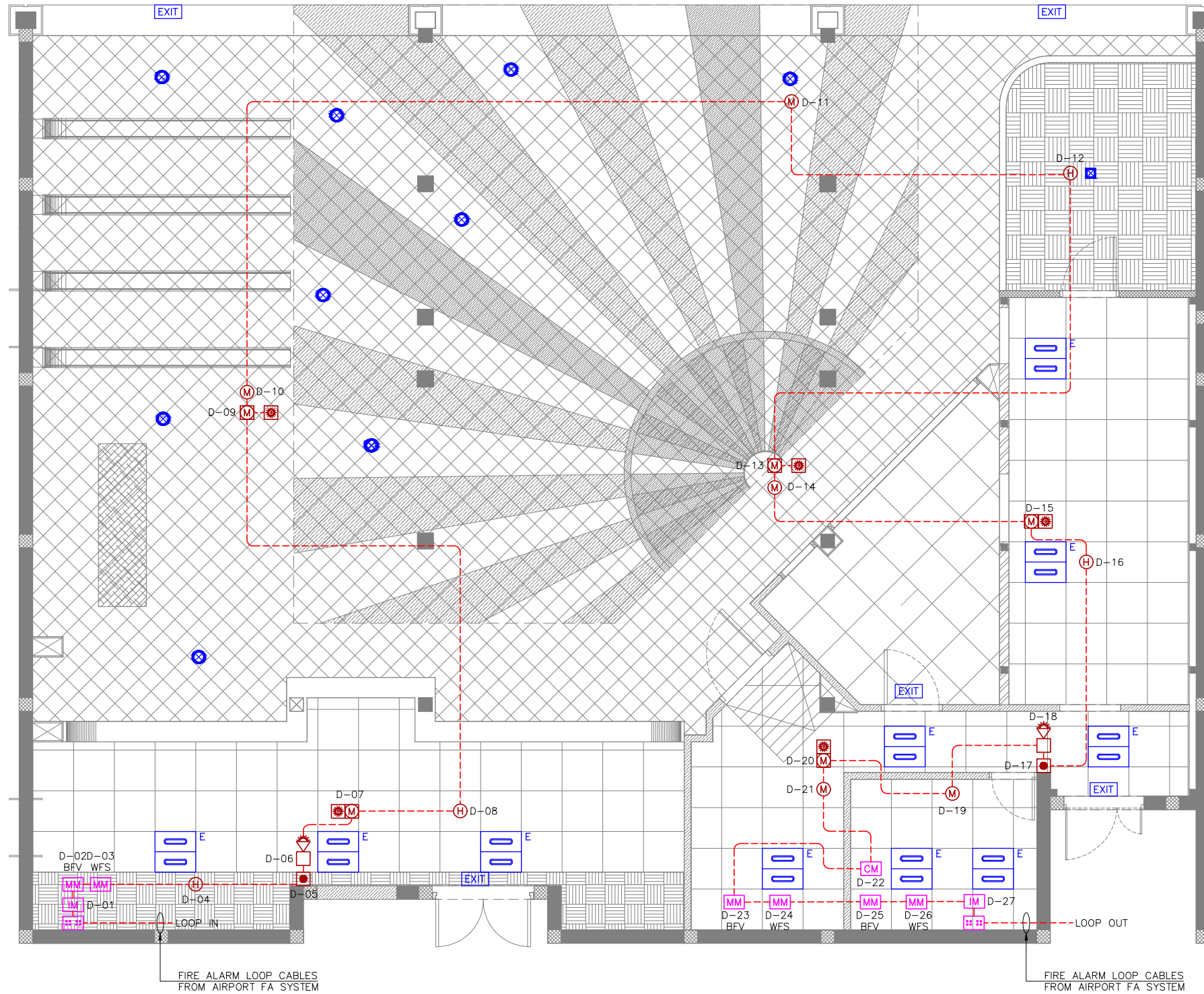
PROJECT  
**DILLI STREET  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI**

DRAWING TITLE  
**WATER SUPPLY SCHEMATIC LAYOUT**

SCALE	NTS	DATE	09.01.24	DRAWN	HS	A3	SHEET
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STATUS  
**TENDER**

ORG	PROJECT NO	DRAWING TYPE	NUMBER	REV
TFS	0000	ELEC	E401	T00



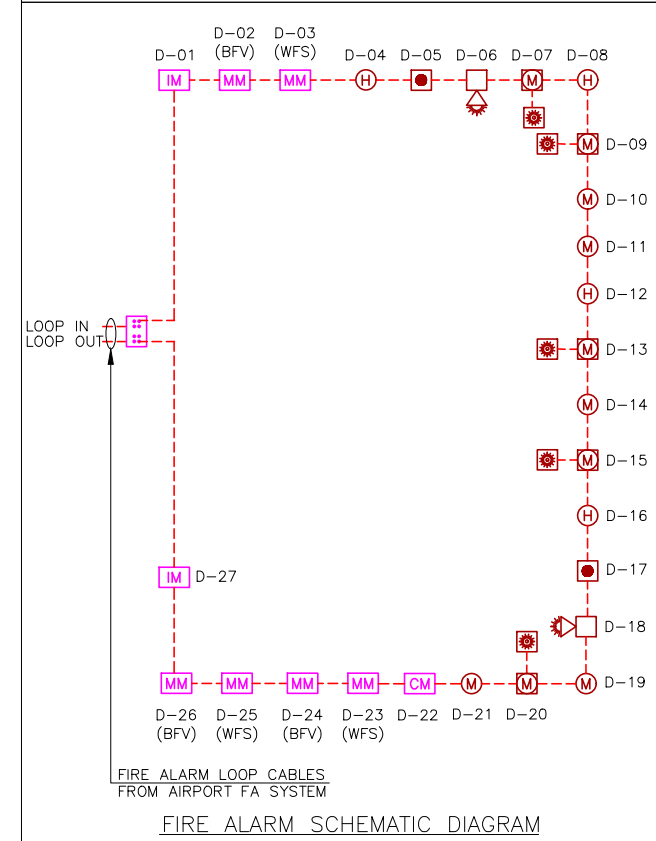
FIRE ALARM LEGEND		
SYMBOL	DESCRIPTION	QTY
(M)	MULTI-CRITERIA DETECTOR (CEILING MOUNTED)	05
(H)	HEAT DETECTOR (CEILING MOUNTED)	04
(M)	MULTI-CRITERIA DETECTOR (CEILING VOID)	05
(R)	RESPONSE INDICATOR FOR ABOVE CEILING DETECTOR	05
(S)	FIRE ALARM LOOP SOUNDER STROBE (WALL MOUNTED), (MOUNTING HEIGHT-2200 AFFL / OTHERWISE SPECIFIED)	02
(M)	MANUAL CALL POINT (BREAK GLASS UNIT), (MOUNTING HEIGHT - 1300 AFFL / OTHERWISE SPECIFIED)	02
(MM)	MONITOR MODULE (FIRE SPRINKLER SYSTEM BUTTERFLY VALVE & WATER FLOW SWITCH)	06
(IM)	ISOLATION MODULE	02
(CM)	CONTROL MODULE	01
(J)	LOOP JUNCTION BOX (EXISTING)	--
(E)	EMERGENCY 600 x 600mm LED PANEL LIGHT TEMP: 4000K	10
(S)	EMERGENCY SQUARE LED PANEL LIGHT	01
(R)	EMERGENCY ROUND LED PANEL LIGHT	09
(EXIT)	EXIT LIGHT (WALL / CEILING MOUNTED)	05
(—)	FIRE ALARM LOOP CABLE	--
(---)	DETECTOR COVERAGE LINE	--

**NOTES**

- ALL DIMENSIONS & LEVELS ARE IN "MM" OR OTHERWISE SPECIFIED.
- COMPLY WITH THE REQUIREMENTS OF NFPA 72.
- FIRE ALARM DEVICES TO BE SAME / RECOMMENDED MAKE AS PER AIRPORT REQUIREMENT TO AVOID COMPATIBILITY ISSUES (REFER DIAL TDM / GUIDELINES FOR MAKE & SPECIFICATION).
- FIRE ALARM SYSTEM LOOP CABLE TO BE SAME MAKE, SIZE & TYPE AS PER AIRPORT REQUIREMENT (REFER DIAL TDM / GUIDELINES FOR MAKE & SPECIFICATION).

**ABBREVIATIONS**

- BFV - BUTTERFLY VALVE
- WFS - WATER FLOW SWITCH



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T00 18.12.23 ISSUED FOR TENDER AK VJ  
REV DATE DESCRIPTION DRN CHK



PROJECT  
**DILLI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI**

DRAWING TITLE  
**FIRE ALARM LAYOUT**

SCALE 1:75 DATE 18.12.23 DRAWN AK A3 SHEET

STATUS

**TENDER**

ORG PROJECT NO DRAWING TYPE NUMBER REV

**TFS 0000 ELEC F101 T00**

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FIRE SPRINKLER SYSTEM LEGEND		
SYMBOL	DESCRIPTION	QTY
	SPRINKLER HEAD PENDENT (68°C TYCO-CONCEALED TYPE)	22
	SPRINKLER HEAD PENDENT HIGH TEMPERATURE (79°C TYCO-CONCEALED TYPE)	08
	SPRINKLER HEAD UPRIGHT	23
	SPRINKLER BUTTERFLY VALVE (ISOLATION VALVE)	03
	SPRINKLER BALL VALVE - TEST DRAIN	03
	SPRINKLER PIPE FLOW SWITCH	03
	SPRINKLER PIPE FLEXIBLE CONNECTION	--
	SPRINKLER PIPE REDUCER	03
	SPRINKLER PIPE	--
	SPRINKLER PIPE EXISTING	--
	SPRINKLER PIPE EXISTING FLANGE CONNECTION	--

- NOTES:
- FIRE PIPE FINAL TAP-OFF POINT TO BE CONFIRMED BY THE AIRPORT.
  - INSTALLATION WORKS FOR THE AUTOMATIC SPRINKLERS SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 13.
  - ISOLATION VALVE SHALL BE CONSIDERED AT SPRINKLER TAPPING (PN16) AND TRAP DOOR SHALL BE PROVIDED FOR THE SAME FOR EASY MAINTENANCE.
  - PIPE WORKS AND FITTINGS SHALL COMPLY WITH THE DRAWINGS AND LOCAL AUTHORITIES REQUIREMENTS.
  - 65 MM Ø NEW BRANCH PIPE FROM EXISTING SPRINKLER PIPE.
  - THE CONTRACTOR TO ENSURE THE SPRINKLER IS INSTALLED UNDER NFPA-13 AND SHARED AIRPORT GUIDELINES.
  - CONTRACTOR TO ENSURE THE MINIMUM DISTANCE BETWEEN TWO WIELDED JOINTS SHOULD NOT BE LESS THAN 100MM AND ONLY CONCENTRIC REDUCERS SHOULD BE USED TO REDUCE PIPE SIZES.
  - CONTRACTOR TO ENSURE PIPES AND FITTINGS SHALL BE CONFIRMED TO IS 1239 PART -1 CLASS "C" HEAVY.
  - THE CONTRACTOR IS TO ENSURE ALL HOSE PIPES ARE TO BE TYCO-1500 MM LONG (SS BRAIDED, UL LISTED & FM APPROVED).
  - THE CONTRACTOR IS TO ENSURE ALL SPRINKLER PIPES ARE PROPERLY SUPPORTED AS PER STANDARDS AND SITE CONDITIONS.
  - UPRIGHT SPRINKLERS ARE ADDED BECAUSE THERE IS A CEILING CANOPY ABOVE THE VISIBLE FALSE CEILING BELOW.

T00	09.01.24	ISSUED FOR TENDER	ST	MB
REV	DATE	DESCRIPTION	DRN	CHK

- ELBOW DOWN
- ELBOW UP
- TOP CONNECTION
- BOTTOM CONNECTION



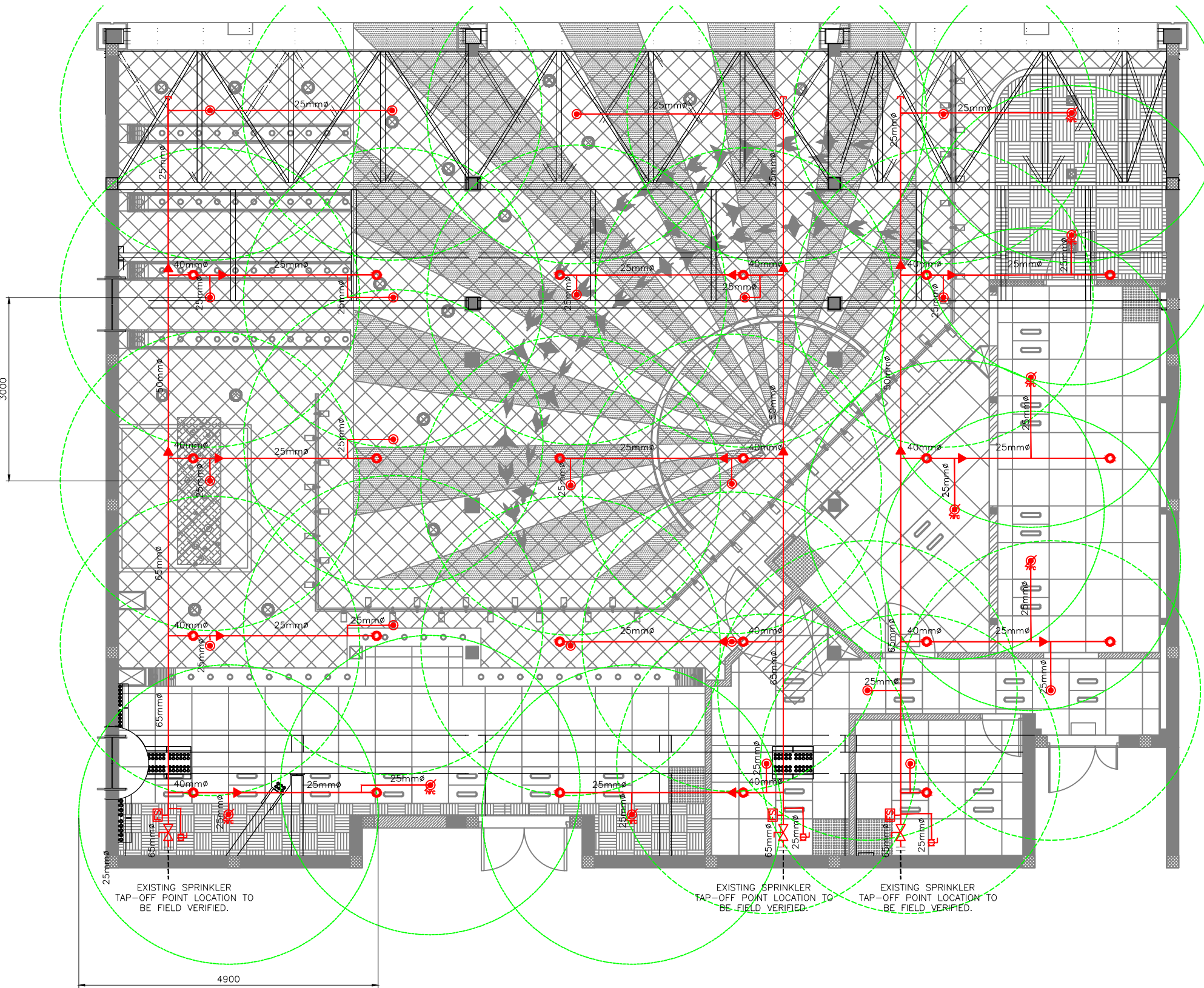
PROJECT  
DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI

DRAWING TITLE  
FIRE SPRINKLER LAYOUT

SCALE 1:75 DATE 09.01.24 DRAWN ST A3 SHEET

STATUS  
TENDER

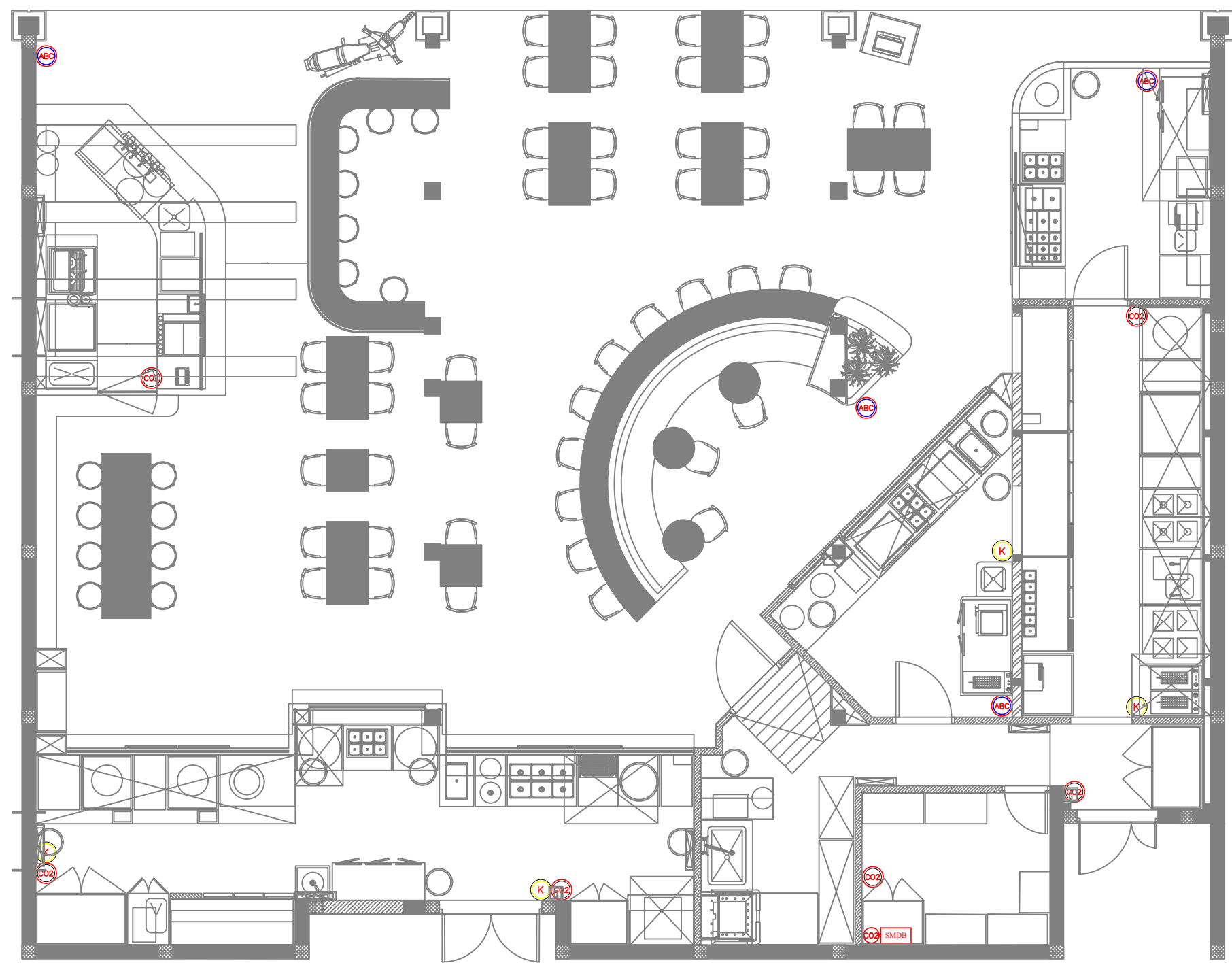
ORG PROJECT NO DRAWING TYPE NUMBER REV  
TFS 0000 FIRE F201 T00



01 FIRE SPRINKLER LAYOUT  
F201 1:75

ALL DIMENSIONS MUST BE CHECKED ON SITE  
INFORM THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION

NOTES:  
IRRESPECTIVE OF THE DRAWING(S), IT IS THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY THAT SHALL BE EXECUTED AND COMPLETED IN ACCORDANCE TO THE SPECIFICATION, DRAWING(S) AS WELL AS REQUIREMENT, THE SAID DRAWING(S) SHALL NOT RELIEVE CONTRACTOR FROM ANY OBLIGATION UNDER THE CONTRACT AND IN PARTICULAR FROM ITS RESPONSIBILITY IN RELATION TO THE INSTALLATION MATERIALS AND WORKMANSHIP AND WHERE RELEVANT FROM A DUTY TO SEEK APPROVAL FROM THE COMPETENT AUTHORITY.



FIRE EXTINGUISHERS LEGEND		
SYMBOL	DESCRIPTION	QTY
ABC	FIRE EXTINGUISHER_CLASS ABC (DRY POWDER) – 4 KG	04
CO2	FIRE EXTINGUISHER_CLASS BC (CO2) – 4.5 KG	06
K	FIRE EXTINGUISHER_CLASS K (WET CHEMICAL) – 6 Ltr	04
CO2 SMDB	FIRE DETECTION TUBE SUPPRESSION SYSTEM (250AMPS)	01

- NOTES:
- FIRE EXTINGUISHER SHALL BE INSTALLED IN LOCATION WHERE THEY ARE VISIBLE
  - FIRE EXTINGUISHER SHALL BE CONSPICUOUSLY LOCATED WHERE THEY ARE READILY ACCESSIBLE AND IMMEDIATELY AVAILABLE IN THE EVENT OF FIRE.
  - FIRE EXTINGUISHER SHALL BE INSTALLED SO THAT THE FIRE EXTINGUISHER'S OPERATING INSTRUCTIONS FACE OUTWARD.
  - FIRE EXTINGUISHER SHALL BE INSTALLED SO THAT IN NO CASES THE TOP OF THE EXTINGUISHER IS NOT MORE THAN 1500MM ABOVE THE FLOOR LEVEL OR THE CLEARANCE BETWEEN THE BOTTOM OF THE HAND PORTABLE FIRE EXTINGUISHER AND THE FLOOR BE LESS THAN 100MM.
  - SIGNS OR OTHER MEANS USED TO INDICATE FIRE EXTINGUISHER LOCATION SHALL BE LOCATED IN CLOSE PROXIMITY TO THE EXTINGUISHER AND BE VISIBLE FROM THE NORMAL PATH OF TRAVEL.
  - ALL FIRE EXTINGUISHER SIGNS TO BE PROVIDED WITH NIGHT GLOW.
  - CONTRACTOR TO ENSURE ALL EXTINGUISHERS SHOULD BE AS PER BIS 15683.
  - ALL EXTINGUISHER TO BE FLOOR MOUNTED AND PLACED WITH SS STAND.
  - STANDARD STICKER SIGNAGE FOR EXTINGUISHER LOCATION TO BE PLACED.

T00	09.01.24	ISSUED FOR TENDER	ST	MB
REV	DATE	DESCRIPTION	DRN	CHK



PROJECT  
DELHI STREET  
L5 LEVEL  
T1, IGI AIRPORT  
DELHI

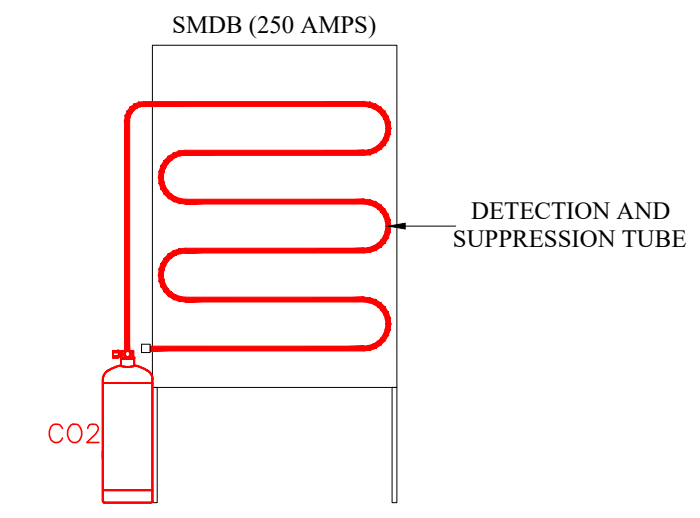
DRAWING TITLE  
FIRE EXTINGUISHER LAYOUT

SCALE	DATE	DRAWN	STATUS
1:75	09.01.24	ST	A3 SHEET

STATUS  
TENDER

ORG	PROJECT NO	DRAWING TYPE	NUMBER	REV
TFS	0000	FIRE	F301	T00

01 FIRE EXTINGUISHER LAYOUT  
F301 1:75







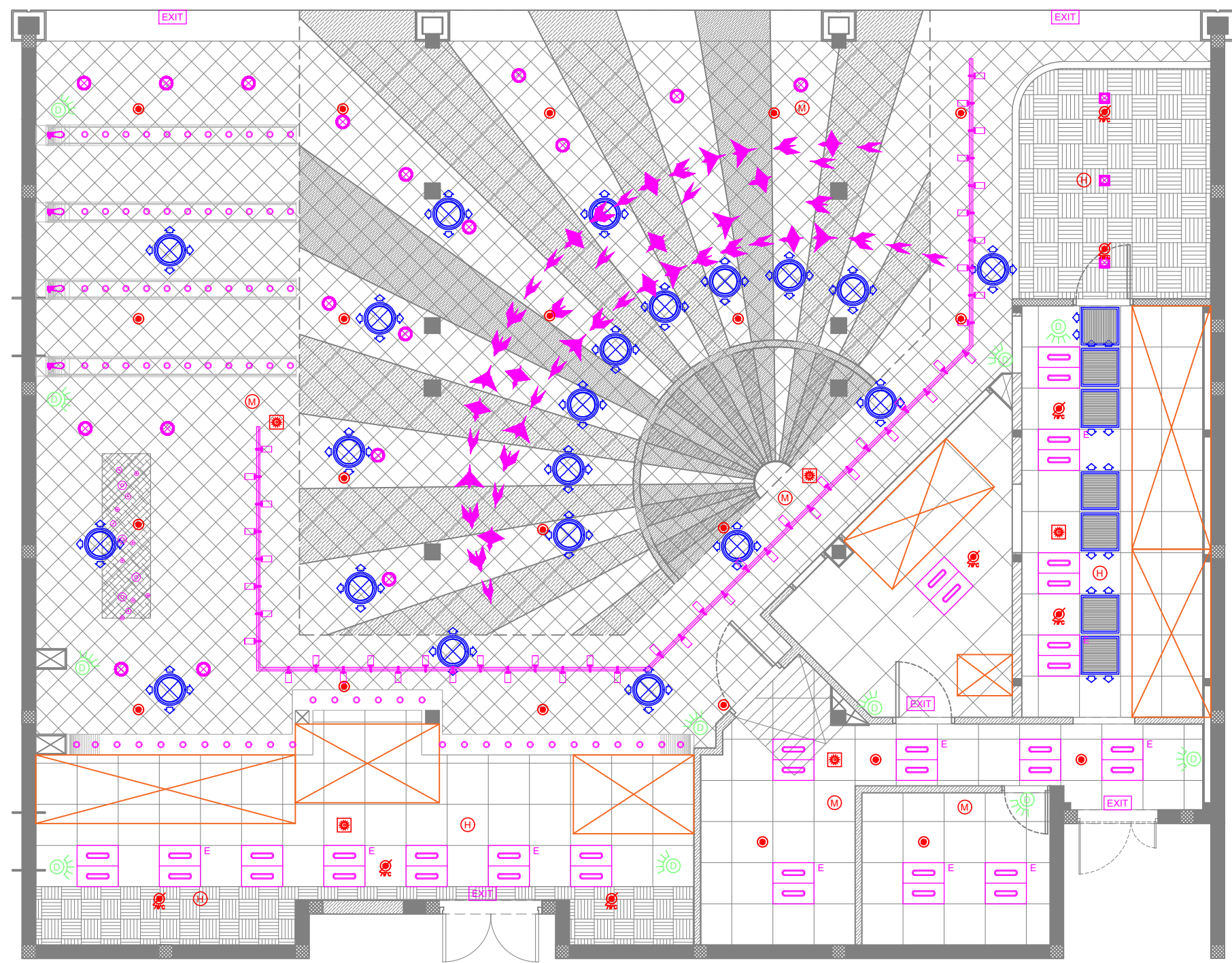
02 INDICATIVE FIRE DETECTION TUBE SUPPRESSION SYSTEM  
F301 NTS



ALL DIMENSIONS MUST BE CHECKED ON SITE  
INFORM THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION

NOTES:  
IRRESPECTIVE OF THE DRAWING(S), IT IS THE CONTRACTOR'S OBLIGATION AND RESPONSIBILITY THAT SHALL BE EXECUTED AND COMPLETED IN ACCORDANCE TO THE SPECIFICATION, DRAWING(S) AS WELL AS REQUIREMENT. THE SAID DRAWING(S) SHALL NOT RELIEVE CONTRACTOR FROM ANY OBLIGATION UNDER THE CONTRACT AND IN PARTICULAR FROM ITS RESPONSIBILITY IN RELATION TO THE INSTALLATION MATERIALS AND WORKMANSHIP AND WHERE RELEVANT FROM A DUTY TO SEEK APPROVAL FROM THE COMPETENT AUTHORITY.

LEGENDS	
	ACMV
	LIGHTING
	CCTV & DATA
	FIRE



01 M&E COORDINATION LAYOUT  
M104 1:75

T00 09.01.24 ISSUED FOR TENDER MB RR  
REV DATE DESCRIPTION DRN CHK



PROJECT  
DELHI STREET  
L5 LEVEL  
T1 , IGI AIRPORT  
DELHI

DRAWING TITLE  
M&E COORDINATION LAYOUT

SCALE 1:75 DATE 09.01.24 DRAWN MB A3 SHEET

STATUS  
TENDER

ORG	PROJECT NO	DRAWING TYPE	NUMBER	REV
TFS	0000	COORD	X101	T00