

**Kerala Real Estate Regulatory Authority**  
TC 25/1379 (1), CRA D -112,SUMANA COTTAGE,  
Plamoodu-charachira Road,Near Pentecostal Church,  
Kowdiar P.O , Thiruvananthapuram -695003.

Phone Number: 9497680600

[Info.rera@kerala.gov.in](mailto:Info.rera@kerala.gov.in)

[www.rera.kerala.gov.in](http://www.rera.kerala.gov.in)

Dated 10/ 5/2022

642/T1/KRERA/2021

### **BID NOTIFICATION**

Sealed quotations are invited from eligible firms, for supply, installation, testing, commissioning, and annual maintenance of Variable Refrigerant Flow (VRF/VRV) technology-based air- conditioning system at K-RERA new office at Kesavadasapuram, Thiruvananthapuram. The tender documents can be collected from our office between 10.00AM to 5.00PM on all working days from 11/5/2022. Alternatively tender documents can be downloaded from our website <https://rera.kerala.gov.in>. Duly filed quotations in sealed cover shall be submitted on or before 16-05-2022 3:00PM.

Details of work:-Supply, installation, testing and commissioning of Air Conditioner and allied work for the new office building at Kesavadasapuram as per requirement of the Authority .

Delivery time :- 15 days from the date of issue of work order.



Secretary ( Technical & Administration)



AC Schedule - K-RERA Office					
SI No.	Location	Area (Sqft)			Outdoor Unit
			Tr	Type	
	<b>VRF SYSTEM -1</b>				
	<u>3RD FLOOR</u>				
3.1	ADJUDICATING OFFICER	245	2	4 WAY CASSETTE	<b>10HP x 2</b> (110%)
3.2	COURT	303	2.6	4 WAY CASSETTE	
3.3	AO LEGAL STAFF	108	1	2 WAY CASSETTE	
	<u>4TH FLOOR</u>	0			
4.1	COURT ROOM	529	2.2	4 WAY CASSETTE	
4.2			2.2	4 WAY CASSETTE	
4.3	WORK STATION	192	1.5	4 WAY CASSETTE	
4.4	WAITING LOBBY & OFFICE BOY	141	1	2 WAY CASSETTE	
4.5	MEMBER-1	175	1.3	HIWALL	
4.6	EXECUTIVE ASST.	62	0.8	HIWALL	
4.7	CHAIRMAN'S ROOM	370	3	DUCTABLE	
	<b>VRF ODU-1</b>		<b>17.6</b>	<i>-&gt;Equivalent HP-&gt;</i>	22.1
	<b>VRF SYSTEM -2</b>				
	<u>5TH FLOOR</u>	0			
5.1	SECRETARY TECHNICAL	206	1.5	4 WAY CASSETTE	<b>10HP x 2</b> (115%)
5.2	OFFICER 1 2 3	369	1.5	4 WAY CASSETTE	
5.3			1.5	4 WAY CASSETTE	
				-	
5.4	LEGAL SECRETARY	146	1	HIWALL	
5.5	WAITING LOBBY & WORKSTATION	485	2.2	4 WAY CASSETTE	
5.6			2.2	4 WAY CASSETTE	
5.7	ADMIN HEAD	124	1	HIWALL	
	<u>6TH FLOOR</u>	0			
6.1	CONFERENCE ROOM	341	1.5	4 WAY CASSETTE	
6.2			1.5	4 WAY CASSETTE	
6.3	MEMBER-2	156	1.3	HIWALL	
6.4	WORKSTATION & WAITING LOBBY	294	2.2	4 WAY CASSETTE	
6.5	IT HEAD	116	1	HIWALL	
	<b>VRF ODU-2</b>		<b>18.4</b>	<i>-&gt;Equivalent HP-&gt;</i>	23.1

VRF SYSTEM SUMMARY		
SL NO.	UNITS	QTY (NOS)
	<u>VRF INDOOR UNITS</u>	
1	DUCTABLE - 3 TR	1
2	2WAY CASSETTE - 1.0 TR	2
3	4WAY CASSETTE - 1.5 TR	6
4	4WAY CASSETTE - 2.0 TR	1
5	4WAY CASSETTE - 2.2 TR	5
6	4WAY CASSETTE - 2.6 TR	1
8	HIWALL - 0.8 TR	1
9	HIWALL - 1.0 TR	3
10	HIWALL - 1.3 TR	2
	<u>VRF OUTDOOR UNITS</u>	
11	10 HP ODU	4

Project : New Office Fitout works for K-RERA at Kesavadasapuram  
 Client : Kerala Real Estate Regulatory Authority  
 HVAC Consultant : ASECOM Engineering Services



**K-RERA**  
 KERALA REAL ESTATE REGULATORY AUTHORITY  
 Government of Kerala

**SCHEDULE OF HVAC WORKS**

SL NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>A</b>	<b>High side (Supply of Machines and Ancillary)</b>				
1	Supply of following capacity high efficiency VRF /VRV Air conditining system (2 pipe system /cooling only) with air cooled top /side discharge condenser units with anticorrosive blue /black coating fins, high efficiency DC motor, electronic expansion valve, control panel with all neccessary protection functions, including single phase preventor, enclosed in powder coated GI sheet metal body. Minimum COP of the system shall be greater than 4 under ARI conditions for 100% load and system suitable for R410A refrigerant, complete with all accessories including anti vibration isolators				
a)	2 Nos.10 HP (or nominal higher capacity) ODU combined	Set	2		
2	Supply of following type & capacity (or nominal higher capacity) VRF /VRV Indoor units comprising of multi speed blower, electronic expansion valve,10 micron filter, condensate water drain pump with electronic level sensor (for all cassette & ductable units) and IR receiver. All indoor units shall be of the same make & compatible to work with above VRV /VRF type condensing unit				
2.1	3TR Concealed Ductable unit	Nos	1		
2.2	1.0 TR 2 Way Cassette unit with front panel	Nos	2		
2.3	1.5TR 4 Way Cassette unit with front panel	Nos	6		
2.4	2.0TR 4 Way Cassette unit with front panel	Nos	1		
2.5	2.2TR 4 Way Cassette unit with front panel	Nos	5		
2.6	2.6TR 4 Way Cassette unit with front panel	Nos	1		
2.7	0.8TR Hiwall unit	Nos	1		
2.8	1.0TR Hiwall unit	Nos	3		
2.9	1.3TR Hiwall unit	Nos	2		
3	Supply of wireless remote controller	Nos	21		
4	Supply of wired remote controller (For ductable unit)	Nos	1		
5	Supply of branch distribution refnet joint kits / branch header with insulation	Nos	19		
6	Supply of outdoor refnet joint kits with insulation	Nos	2		
<b>Total for High side (Supply of Machines and Ancillary)</b>					
<b>B</b>	<b>Low side Works</b>				
7	Lifting to terrace floor, Positioning, Installation, Testing and Commissioning of VRF /VRV outdoor units including charging of additional required refrigerant and oil, making refrigerant pipe outdoor termination and jointing, electrical connections etc., complete. (Excluding supply of refrigerant)				
a)	10 HP top / side discharge ODU	Nos	4		

SL NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8	Carriage to final position, Installation, Testing & Commissioning of following type VRF /VRV Indoor units with suitable mechanical supports, anti vibration isolators as required, anchor fastner etc., to the existing structure, making refrigerant pipe, drain and electrical connections, complete as per OEM recommendation and provide additional support as and where required				
8.1	3TR Concealed Ductable unit	Nos	1		
8.2	1.0TR 2 Way Cassette unit	Nos	2		
8.3	1.5TR 4 Way Cassette unit	Nos	6		
8.4	2.0TR 4 Way Cassette unit	Nos	1		
8.5	2.2TR 4 Way Cassette unit	Nos	5		
8.6	2.6TR 4 Way Cassette unit	Nos	1		
8.7	Hiwall units	Nos	6		
9	Supply of R410A refrigerant of required quantity (Additional / Total)	Kg	30		
10	Supply, installation, testing and commissioning of 18G, hard drawn copper refrigerant piping of required size with 13/19mm thick closed cell elastomeric nitrile rubber insulation in tubing form, making all joints and branches. External Refrigerant piping shall be covered with glass cloth and UV treatment. The size and length of gas & liquid pipes to be check with layout. The cost of suitable support system shall be included				
10.1	6.4mm	RM	70		
10.2	9.5mm	RM	130		
10.3	12.7mm	RM	110		
10.4	15.9mm	RM	40		
10.5	19.1mm	RM	70		
10.6	22.2mm	RM	30		
10.7	28.6mm	RM	40		
11	Supply, installation, testing and commissioning of SDR11 CPVC pipe complete with fittings, supports and duly insulated with 9 mm thick closed cell crosslinked polyethylene (XLPE) tubular insulation for condensation drain application.				
a)	25mm dia	RM	RO		
12	Supply and Installation of rectangular GSS ductwork of following gauge, complete with necessary supports, bracing, suspension arrangement in accordance with the approved shop drawings and specifications. Including necessary acoustic and thermal insulation liner	SqM	3		
13	Supply & installation of Antivibration Flexible canvas connection made out of fire retardant fabric with extruded aluminium frame/ flange on both sides	No	1		
14	Supply and Installation of following size rectangular linear grilles of suitable design as per the approved shop drawings with fixed air distribution grid.				
a)	150mm	RM	3		
15	Supply and instalation of square return air diffuser made out of powder coated extruded aluminium with volume control damper of following size				

SL NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
a)	250 x 250	No	1		
16	Supply and laying of control cables between indoor units and outdoor units through PVC conduits fixed directly to wall / ceiling and making necessary connections.	RM	245		
Total for Low side works					
SUMMARY					
A	TOTAL FOR HIGH SIDE (SUPPLY OF MACHINES AND ACNILLARY)				
	GST @ 28%				
	SUB TOTAL FOR HIGH SIDE INCLUDING GST				
B	TOTAL FOR LOW SIDE WORKS				
	GST @ 18%				
	SUB TOTAL FOR LOW SIDE WORKS INCLUDING GST				
GRAND TOTAL INCL. GST (IN FIGURES)					
(IN WORDS)					

# ABBREVIATIONS

T/B - TO BELOW  
F/A - FROM ABOVE

## LEGENDS

SYMBOL	DESCRIPTION
---	REFRIGERANT PIPE - LIQUID
---	REFRIGERANT PIPE - SUCTION
---	AC CONDENSATION DRAIN PIPE
⬢	230V, 1Ø SUPPLY FOR AC IDU
⬢	415V, 3Ø SUPPLY FOR AC ODU

## REVISION :

REV	DATE	DESCRIPTION	BY	AP
01	05-05-2022	Revised		
02	29-04-2022	Submission for Approval		

## PROJECT :

NEW OFFICE BUILDING AT  
KESAVADASAPURAM,  
TRIVANDRUM

## CLIENT :

K-RERA

## ARCHITECT / EPC CONTRACTOR :

**TDL** THIRISSUR DISTRICT LABOUR CONTRACT  
CO- OPERATIVE SOCIETY LTD, R No, 1389  
19/48/380, Global Tower, Vanchikulam Road,  
Poonde P.O, Thiruvananthapuram

## MEP CONSULTANT :

**ASECOM**  
ASECOM Engineering Services  
TC 28/287, Pound Road, Thycad, Trivandrum - 14,  
info@asecom.in, www.asecom.in

## DRAWING TITLE :

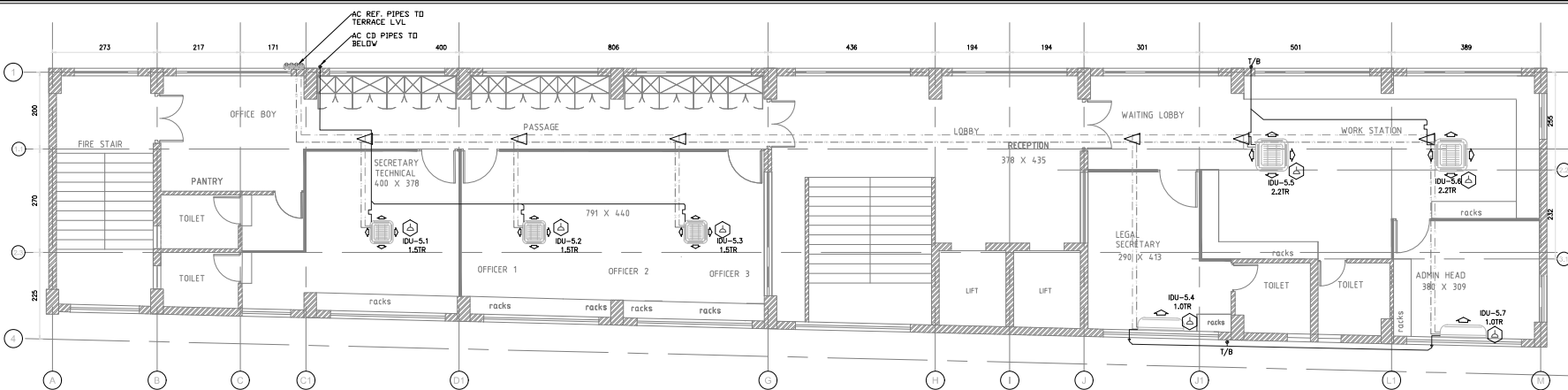
AC LAYOUT - 3RD & 4TH FLOOR

ORIGINAL SCALE :	DRAWN :	CHECKED :	AUTHORISED :	SIZE :
MTS	DATE :	DATE :	DATE :	A2
JOB NO :	DRAWING NO :			REV :
148	RFA-148-A-C-01			01

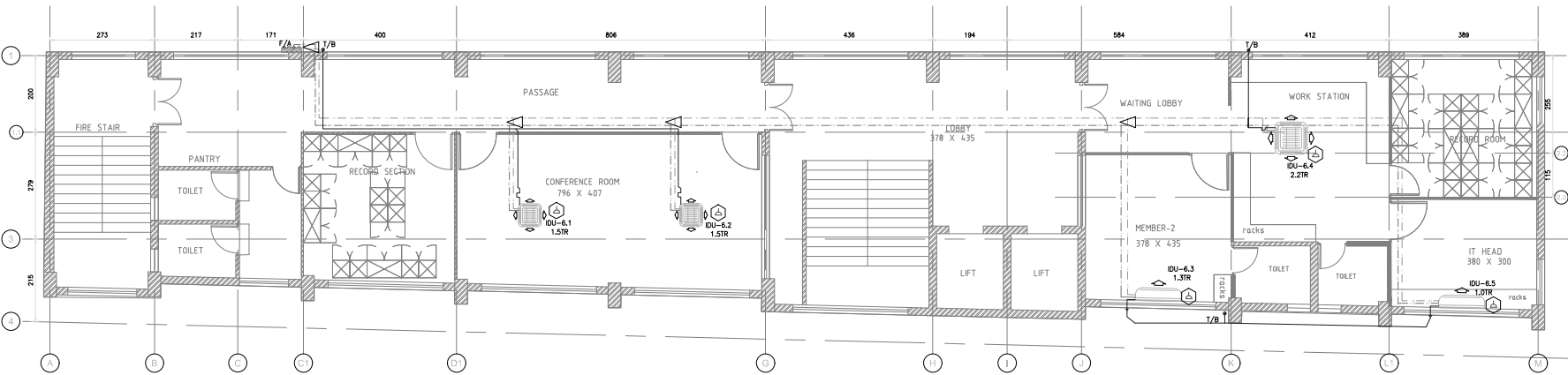
PAGE NO :

### THIRD FLOOR PLAN

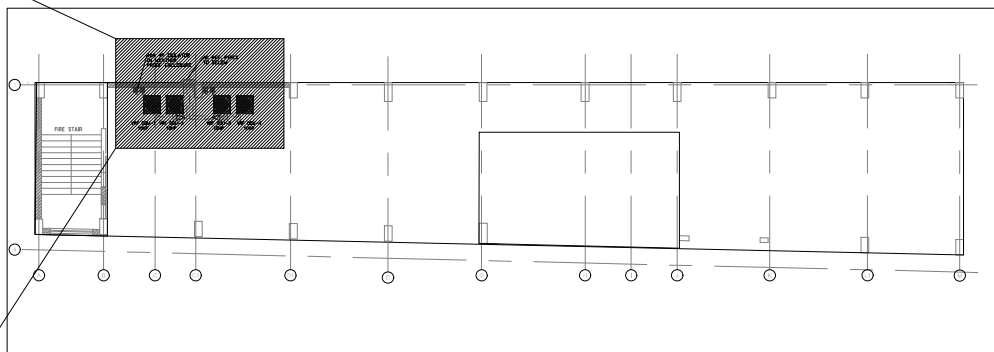
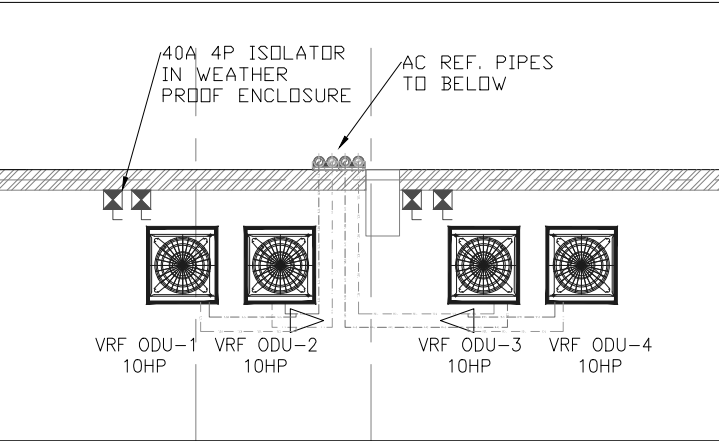
### FOURTH FLOOR PLAN



FIFTH FLOOR PLAN



SIXTH FLOOR PLAN



TERRACE FLOOR PLAN

**ABBREVIATIONS**

T/B - TO BELOW  
F/A - FROM ABOVE

**LEGENDS**

SYMBOL	DESCRIPTION
---	REFRIGERANT PIPE - LIQUID
---	REFRIGERANT PIPE - SUCTION
---	AC CONDENSATION DRAIN PIPE
⊕	230V, 1ø SUPPLY FOR AC IDU
⊕	415V, 3ø SUPPLY FOR AC ODU

**REVISION :**

REV	DATE	DESCRIPTION	BY	AP
02	08-09-2022	Revised		
01	05-05-2022	Revised		
00	29-04-2022	Submission for Approval		

**PROJECT :**

NEW OFFICE BUILDING AT  
KESAVA ADASAPURAM,  
TRIVANDRUM

**CLIENT :**

K-RERA

**ARCHITECT / EPC CONTRACTOR :**

**TDL** THIRISSUR DISTRICT LABOUR CONTRACT  
CO-OPERATIVE SOCIETY LTD. R. No. 1389  
18A/80/80, Chakkal Tower, Vandalam Road,  
Puthuppalayam, Thrissur - 680004

**MEP CONSULTANT :**

**ASECOM**  
ASECOM Engineering Services  
TC 28/287, Pound Road, Thycoud, Trivandrum - 14.  
Info@asecom.in, www.asecom.in

**DRAWING TITLE :**

AC LAYOUT - 5TH, 6TH & TERRACE FLOOR

ORIGINAL SCALE:	DRAWN: TJ	CHECKED:	AUTHORISED:	SIZE:
NTS	DATE: 08-09-2022	DATE:	DATE:	A2
JOB NO: 148	DRAWING NO: RRA-148-AC-02	REV: 02		
PAGE NO:				