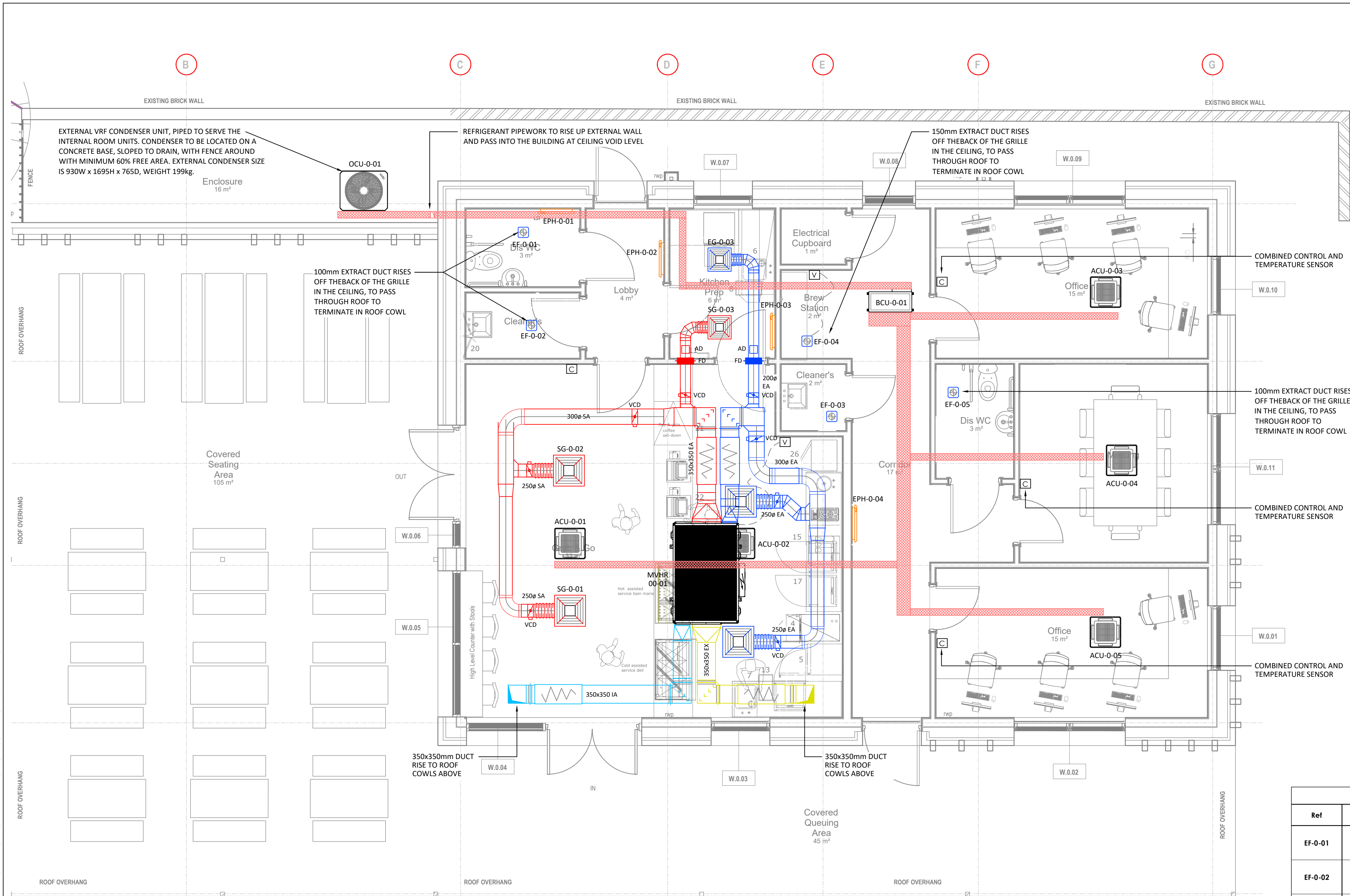




Supply & Extract Grille Schedule								
Ref	System	L/S	Type	Plenum Size	Spigots	Max PD (Pa)	Min Conn Size (mm)	OBD
SG-0-01	MVHR Supply	145	600x600 LOUVRE FACED 4 WAY		1	20	250	Yes
SG-0-02	MVHR Supply	145	600x600 LOUVRE FACED 4 WAY		1	20	250	Yes
SG-0-03	MVHR Supply	75	450x450 LOUVRE FACED 4 WAY		1	20	200	Yes
EG-0-01	MVHR Extract	145	600x600 LOUVRE FACED 4 WAY		1	20	250	Yes
EG-0-02	MVHR Extract	145	600x600 LOUVRE FACED 4 WAY		1	20	250	Yes
EG-0-03	MVHR Extract	75	450x450 LOUVRE FACED 4 WAY		1	20	200	Yes
Notes: 1 Grilles and diffusers shall be as manufactured by Waterloo or equal and approved. 2 All grilles and diffusers shall be finished in polyester powder paint to 20% gloss. 3 All grilles and diffusers shall be complete with plenum box to give duct connection and neck size as shown. Orientation of duct spigot (side/top/angled) determined by grille manufacturer using the co-ordinated drawings provided.								

Attenuator Schedule								
Ref	System	Code	Manufacturer	Volume m ³ /s	Max PD (Pa)	Duct Size	Air Size	Noise Criteria
ATT-0-01	MVHR-0-01 Intake		Allaway	0.365	25	350x350mm		NR40
ATT-0-02	MVHR-0-01 Discharge		Allaway	0.365	25	350x350mm		NR40
ATT-0-03	MVHR-0-01 Supply		Allaway	0.365	25	350x350mm		NR40
ATT-0-04	MVHR-0-01 Extract		Allaway	0.365	25	350x350mm		NR40
Notes: 1 Attenuators shall be as manufactured by Allaway. 2 Attenuator Schedule to be referenced with layout drawings and quotation. 3 Pressure losses are stated in accordance with ISO 7235, which is based on laminar airflow conditions. The system designer shall make allowance for increased attenuator pressure losses where turbulent airflow. 4 The attenuator supplier shall undertake acoustic calculations to ensure that the attenuators achieve the specified noise criteria, based upon the fan/MVHR noise levels, and provide detailed selections.								

MVHR Unit Schedule		
MVHR-0-01		
General	System	Servery/CAFÉ
	Unit Type	Xboxer
	Manufacturer	Nuaire
	Filters	Standard
	Model	XBC-55
Duty	Weight	375kg
	Air volume Flow (m ³ /s)	0.365
	External Static Pressure (Pa)	212
	Heat Exchange Efficiency (% min)	70
	SFP (W/l/s)	1.6
Heating	LPWH Coil temp (F&R)	n/a
	Duty	n/a
	Electric Heater	YES
Electrical	Supply (Ph-Hz-V)	1-50-230
	Amps	46A (10.1kW)
Controls	Options	CONTROLLED FROM WALL MOUNTED VARIABLE SPEED CONTROLLER
	BMS Interface	n/a
Acoustics	Space target NR	40
	Sound power levels	63 Hz 125 Hz 250 Hz 500 Hz 1k Hz 2k Hz 4k Hz 8k Hz
	Inlet	
	Outlet	
	Breakout	

Electric Panel Heater Schedule							
Ref	Location	Loss KW	Elec Loading	Room temp °C	Model	Manufacturer	Height
EPH-0-01	Dis WC	0.257	0.5kw	21	LST050E	Dimplex	430
EPH-0-02	Lobby	0.273	0.5kw	18	PLX050E	Dimplex	470
EPH-0-03	Kitchen Prep	0.734	0.75kw	18	PLX075E	Dimplex	470
EPH-0-04	Corridor	1.700	2.0kw	18	PLX200E	Dimplex	470
Notes: 1 Based on Dimplex Heaters 2 230V AC Supply 3 Remote Control - Built in Thermostat 4 The heaters shall come complete with their own individual controls that will allow temperature control and 24hour / 7day time programming. 5 Controls section to be lockable to prevent tampering							

- #### 55 AIR CONDITIONING NOTES
- ALL REFRIGERANT PIPEWORK SHALL BE REFRIGERANT GRADE COPPER TO BS 2871 PART TWO, CLEANED AND DEHYDRATED
 - ALL REFRIGERANT PIPEWORK SHALL BE INSULATED WITH CLASS 'O' ARMAFLEX WITH U.V. PROTECTIVE COVERING WHERE EXTERNAL TO THE BUILDING
 - INTER-UNIT WIRING SHALL RUN ADJACENT TO LIQUID AND SUCTION LINES
 - ALL ITEMS OF PLANT SHALL BE IDENTIFIED AND TAGGED WITH TRAFFOLYTE LABELS

- #### 55 AIR CONDITIONING REFERENCES & SYMBOLS
- | | |
|--|---------------------------------------|
| | WALL MOUNTED AIR CONDITIONING UNIT |
| | AIR CONDITIONING PIPEWORK TRAY |
| | BC MULTIPipe CONTROLLER (VRF SYSTEMS) |
| | LOCAL AIR CONDITIONING CONTROLLER |
| | VRF CONDENSER UNIT |
| | CEILING MOUNTED AIR CONDITIONING UNIT |
| | SOFFIT MOUNTED AIR CONDITIONING UNIT |

- #### 56 ELECTRIC HEATING REFERENCES & SYMBOLS
- | | |
|--|--|
| | ELECTRIC PANEL HEATER (LANDLORD) |
| | ELECTRIC PANEL HEATER |
| | ELECTRIC PANEL HEATER (LOW SURFACE TEMP) |
| | ELECTRIC TOWEL RAIL |
| | TIME CONTROLLER (SEE DETAIL ADJACENT) |

Extract Fan Schedule						
Ref	System	L/S	Pa	Type	Duct Size	Elec
EF-0-01	Dis WC	20	25	VENT AXIA LO-CARBON CLOSED GRILLE	100mm	1ph 230V
EF-0-02	Cleaners	20	25	VENT AXIA LO-CARBON CLOSED GRILLE	100mm	1ph 230V
EF-0-03	Cleaners	15	25	VENT AXIA LO-CARBON CLOSED GRILLE	100mm	1ph 230V
EF-0-04	Brew Station	35	25	VENT AXIA LO-CARBON CLOSED GRILLE	150mm	1ph 230V
EF-0-05	WC	20	25	VENT AXIA LO-CARBON CLOSED GRILLE	100mm	1ph 230V
Notes: 1 System shall be commissioned in line with the manufacturers recommendations 2 Selections based on equipment manufactured by Vent Axia or equal and approved. 3 Fan external resistances are provisional and are based on design drawings. They shall be confirmed by the Services Engineer once the Contractors co-ordinated working drawings 4 Final fan selections shall be capable of handling an increase flow of 15% and an increase in pressure of 30% above the specified duty						

Air Conditioning Schedule									
Indoor Ref	System Ref	Location	Sensible Cooling (kW)	Total Cooling (kW)	Heating (kW)	Volume of Medium Speed (l/s)	Model	Max Room Sound (NR)	Elec
AC-0-01	1	CAFÉ	7.18	8.15	5.12	225/s	AM045KN4DEH/EU	40	1ph 5A Fuse
AC-0-02	1	CAFÉ				225/s	AM045KN4DEH/EU	40	1ph 5A Fuse
AC-0-03	1	Office	1.41	1.58	0.58	117/s	AM022NNDEH/EU	35	1ph 5A Fuse
AC-0-04	1	Meeting	2.36	2.67	0.57	225/s	AM045KN4DEH/EU	35	1ph 5A Fuse
AC-0-05	1	Office	1.58	1.77	0.57	117/s	AM022NNDEH/EU	35	1ph 5A Fuse
BCU Ref		Model	Ports		Size		SC A	FLC A	Input KW
BCU-0-01		MCU-S6NEKZN	6		T8C		n/a	1.6	n/a
CU Ref		Location	Model	Cooling KW	Heating KW	COP/EER	FLC A	Input KW	Fuse A
OCU-0-01		External Compound	T8C	14.17	6.84				
Notes:									
1	Equipment based on VRF as supplied and installed by Samsung or equal and approved.								
5	Each indoor unit shall operate independently of every other indoor unit on the same outdoor unit								
6	Each indoor unit shall be complete with cleanable and/or washable filter								
7	Each indoor chassis unit shall be complete with a condensate pump and level switch to alarm on high level and switch off the indoor unit.								
8	All systems shall be linked together to allow interconnection and remote setting by the BMS of temperature, time, faults.								
9	Each indoor chassis unit shall be capable of delivering 50 Pa external resistance at mid speed.								
11	Indoor BC Controller located in circulation spaces selected to give NR 40 in the space								

Citation ISO Certification

Quality management ISO 9001:2015

REGISTERED

Certificate No 381342021

© This drawing is copyright protected, and remains the property of hurstwood environmental consulting. It must not be reproduced, used, disclosed or transmitted to third parties in any form without prior written permission.

- #### 57 VENTILATION NOTES
- ALL GENERAL SUPPLY AND EXTRACT DUCTWORK SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE HVCA SPECIFICATION DW144 LOW PRESSURE CLASS A
 - ALL KITCHEN EXTRACT DUCTWORK SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE HVCA SPECIFICATION DW172
 - ALL EXTERNAL SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED, FINISHED ALUMINIUM CLAD AND IDENTIFIED.
 - ALL DUCTING WITHIN UNHEATED SPACES MUST BE INSULATED IN ACCORDANCE WITH 'PART F' OF BUILDING REGULATIONS.
 - FLEXIBLE DUCTING HAS BEEN ALLOWED FOR THE FINAL UNIT CONNECTION, NO MORE THAN 300mm PER LEG SHOULD BE USED AS PER BPEC GUIDANCE.
 - A MINIMUM OF 500mm IS REQUIRED BETWEEN EACH SPIGOT OFF THE UNIT AND ANY DUCTWORK FITTING. FLEXIBLE DUCTING SHOULD BE PULLED TAUGHT WITH SMOOTH BENDS ONLY.
 - CONDENSATE DRAIN PIPEWORK WILL BE REQUIRED IN 21.5mm. ALL CONDENSATE PIPEWORK IS TO BE INSULATED WITHIN A COLD SPACE AND HAVE A MINIMUM FALL OF 10 DEGREES.

- #### 56 ELECTRIC HEATING NOTES
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ANY RELEVANT STRUCTURAL, ARCHITECTURAL AND CONSULTANTS DRAWINGS.
 - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SERVICES SPECIFICATION.
 - ALL DIMENSIONS WHERE SHOWN ARE IN MILLIMETERS/METERS. THIS DRAWING SHALL NOT BE SCALED TO DETERMINE ACTUAL SIZES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL DIMENSIONS THROUGH SITE MEASUREMENTS PRIOR TO COMMENCEMENT OF THE WORKS.
 - FINAL LOCATIONS OF ELECTRIC HEATING PANELS SHALL BE DEPENDANT ON FURNITURE LAYOUTS.
 - PATRESS BOARD REQUIRED WHERE PANEL HEATER FIXES TO STUB PARTITION OR SIMILAR. TO BE PROVIDED BY OTHERS

C02	RJ	14.05.25	CONSTRUCTION
C01	RJ	01.04.25	CONSTRUCTION
P02	RJ	01.04.25	PRELIMINARY
P01	RJ	19.02.25	PRELIMINARY
REV	CHK	DATE	Description

Architectural X-Ref Drawings:
FF&E X-Ref Drawings:
Drawing Status:

CONSTRUCTION



hurstwood environmental

Consulting Engineers

www.hurstwood-eng.co.uk

Bolton Office

Capitol House

51 Churchgate

Bolton

BL1 1LY

T: 01204 770 041

E: bolton@hurstwood-eng.co.uk

Liverpool Office

23 Goodlass Road

Speke

Liverpool

L24 9HJ

T: 0151 728 3340

E: liverpool@hurstwood-eng.co.uk

London Office

344 Gray's Inn Road

Bloomsbury

London

WC1X 8BP

T: 0203 755 3711

E: london@hurstwood-eng.co.uk

Drawn:	R JORDAN	Chkd:	P CHAMBERS	App:	P CHAMBERS	A1
Date:	FEB 2025	Scale:	1:50			

Client:
meel group

Project:
LORETO SIXTH FORM COLLEGE
ST VINCENT'S GRAB & GO

Drawing Title:
HEATING, VENTILATION AND AIR CONDITIONING
SERVICES LAYOUT

Project No:	C4100-HEC-ZZ-GF-DR-M-5001	Rev:	C02
Project Code	Originator	Volume	Level
Type	Role	Number	