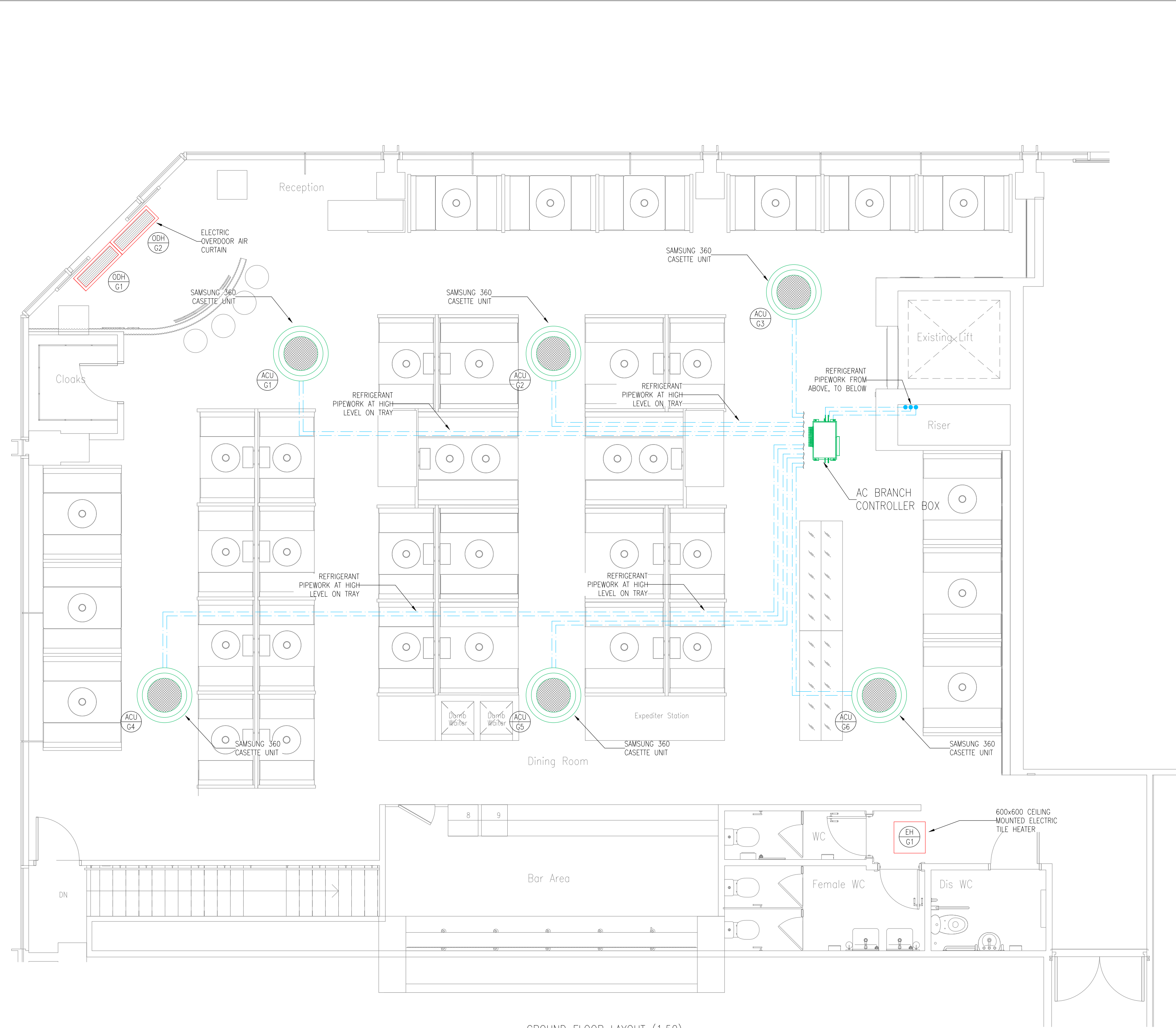
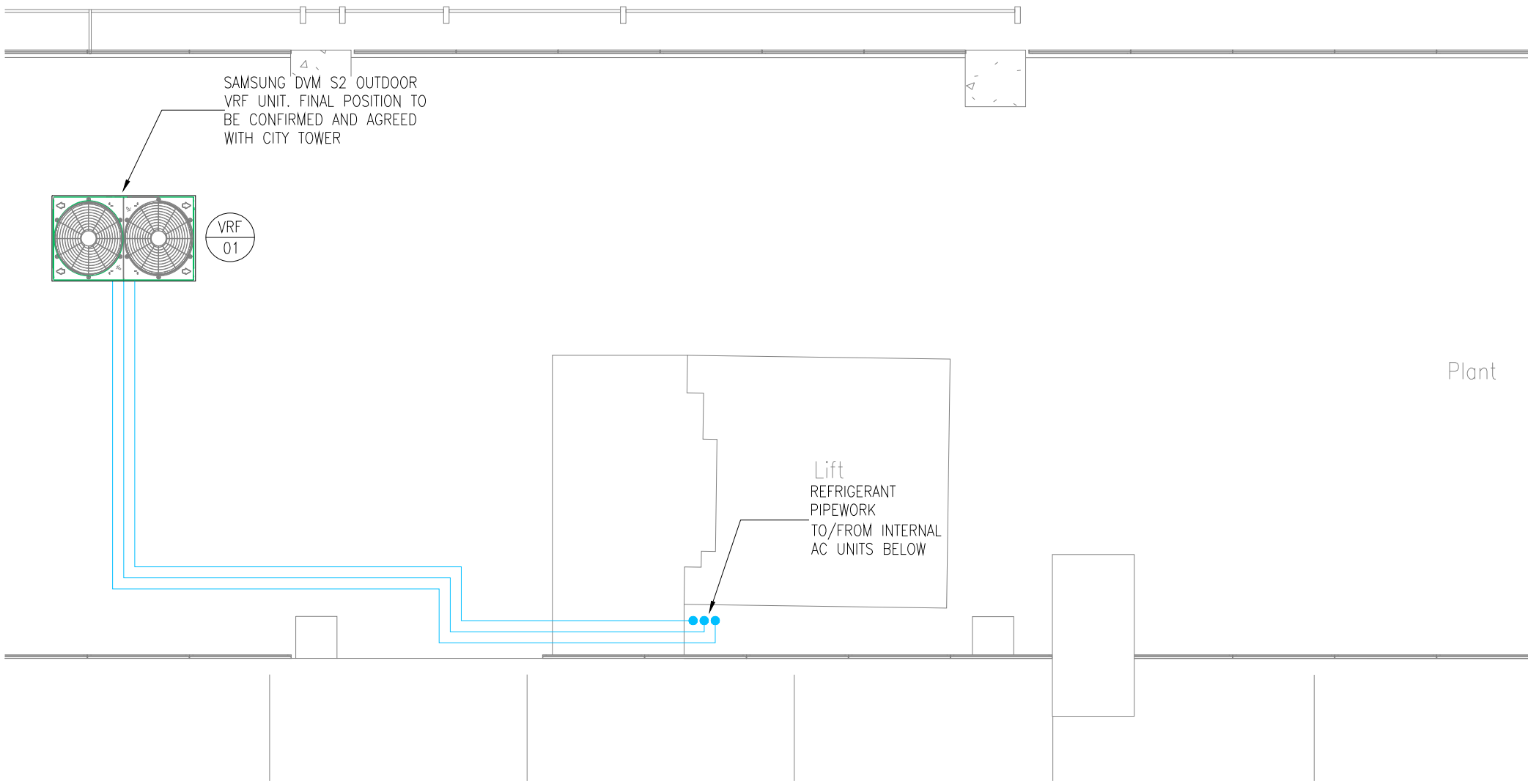
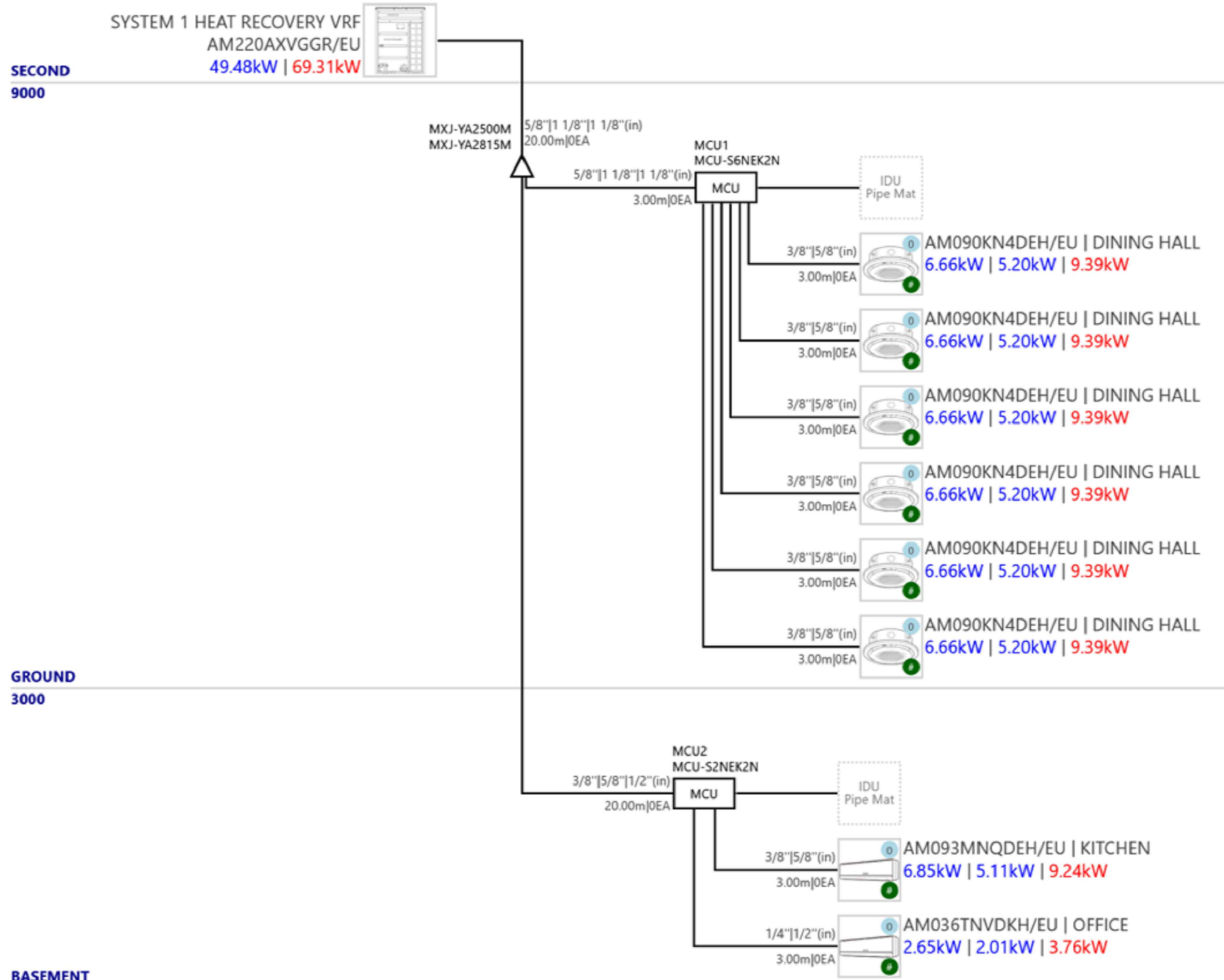




GROUND FLOOR LAYOUT (1:50)



INDICATIVE ROOF PLANT (1:50)

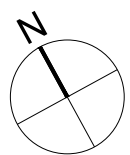


REFRIGERATION SCHEMATIC (NTS)

CONTRACTORS GENERAL SCOPE OF WORKS IN RELATION TO THIS DRAWING:

CONTRACTOR SCOPE OF WORKS GENERALLY BUT NOT LIMITED TO:

- PRE-ORDER SURVEY TO MARK OUT POSITIONS, DETERMINE ANY UNFORESEEN ISSUES AND ESTABLISH THE SITE CONSTRAINTS.
- FULL CEILING SPACE COORDINATION AND SETTING OUT EQUIPMENT AND NEW EXTERNAL LOUVRES
- PROVIDE SUITABLE METHOD OF INSTALLING HIGH LEVEL VENTILATION UNITS, DUCTWORK, GRILLES, DAMPERS, SENSORS, CONTROLLERS
- POWER SUPPLIES BY OTHERS.
- FULL COMMISSIONING AND TO PROVIDE A FUNCTIONAL SYSTEM THROUGHOUT
- MAKING GOOD OF ANY DAMAGE TO WALLS/FLOORS/CEILING
- TRAINING TO CLIENT/SITE CARETAKER
- O&M MANUAL/COMMISSIONING CERTIFICATES / AS FITTED DRAWING FOR ALL MODIFICATIONS AND NEW INSTALLATIONS



0 5M

Copyright ©2024 Octave Design Services Ltd All Rights Reserved.
UK Company Reg No. 09484672

NOTES

GENERAL

- DO NOT SCALE FROM THIS DRAWING
- ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR BEFORE ORDERING MATERIALS OR COMMENCING WORKS
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER OCTAVE DESIGN SERVICES DRAWINGS, SPECIFICATIONS AND SCHEDULES.
- ALL PLANT AND EQUIPMENT SHALL BE INSTALLED FULLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

REFRIGERATION INSTALLATION

- THE SPECIALIST AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY, INSTALLATION AND COMMISSIONING OF THE VRF SYSTEMS IN ACCORDANCE WITH BS EN 378.
- AIR CONDITIONING SPECIALIST TO SUPPLY, INSTALL, TEST AND COMMISSION ALL INTERCONNECTING REFRIGERATION PIPEWORK BETWEEN THE OUTDOOR AND INDOOR UNITS.
- ALL PIPEWORK TO BE CARRIED OUT IN REFRIGERATION QUALITY SOFT/MEDIUM DRAWN COPPER TUBING TO BS2871 PART 2: 1972 COMPLETE WITH THE APPROPRIATE JOINT PIPES FOR TWIN AND TRIPLE SYSTEMS.
- PIPEWORK SHALL BE CARRIED OUT BY AN APPROVED (CERTIFICATE APPROVAL MUST BE SUBMITTED PRIOR TO INSTALLATION COMMENCEMENT) REFRIGERATION ENGINEER AND IN ACCORDANCE TO BS-EN 378 2000 SPECIFICATION. R410A TOOLS REQUIRED FOR ALL PIPEWORK, TORQUE SPANNERS, FLARING BLOCKS ETC.
- LONGEST POSSIBLE LENGTHS OF COPPER PIPE SHOULD BE UTILISED TO MINIMISE JOINTS ON SITE.
- APPROPRIATE REFRIGERATION INSTALLATION TOOLS MUST BE UTILISED. DRY NITROGEN MUST BE UTILISED AT ALL TIMES IN THE SYSTEM DURING BRAZING.
- ALL PIPEWORK (SUCTION AND LIQUID LINES) TO BE INSULATED WITH SLIP ON CLOSE CELL ELASTOMERIC PIPE INSULATION (AS MANUFACTURED BY ARMAFLEX OR EQUAL AND APPROVED) WITH A FIRE PERFORMANCE CLASS 0 OF THE 1985 BUILDING REGULATIONS, HAVING A WALL THICKNESS OF NOT LESS THAN 1.3mm.

AFTER INSTALLATION OF PIPEWORK, AND PRIOR TO SEALING OF INSULATION JOINTS AND STARTING OF EQUIPMENT, PIPEWORK SHOULD BE PRESSURE STRENGTH TESTED TO 42 BAR, CHECKED FOR DEFORMATION, AND THEN LEAK TESTED AT 33 BAR AND HOLD FOR 24 HOURS AND CHECKED FOR LEAKS, THEN VACUUMED/DEHORIZED TO (-752MM HG) 2 TORR, AND HELD AT THAT SETTING FOR 12 HOURS (MINIMUM). HSE DOCUMENT GS4 SHOULD BE FOLLOWED DURING PRESSURE TESTING PERIOD.

REFRIGERATION CHARGE WEIGHT MUST BE CALCULATED, TO THE ACTUAL INSTALLED LENGTH OF PIPEWORK IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS.

THE CHARGING SHOULD BE CARRIED OUT WITH AN APPROPRIATE CHARGING STATION.

PIPEWORK TO BE PROPERLY FIXED AND SUPPORTED AT A MINIMUM OF 1.5 METRE CENTRES AND WHERE REQUIRED SHOULD BE RUN ON GALVANISED TRAYS. ALL PIPEWORK TO BE LABELLED WITH ID NUMBER (CONDENSING UNITS REF.) AT 3 METRE INTERVALS.

JOINTS IN COPPER PIPE SHALL BE BRAZED. BRAZING SHALL BE CARRIED OUT TO THE REQUIREMENTS OF THE HVAC CODE OF PRACTICE - BRAZING AND BRONZE WELDING OF COPPER PIPE AND SHEET.

WHERE VRF AND VENTILATION PLANT IS INSTALLED ABOVE SOLID CEILINGS I.E. PLASTERBOARD SUITABLY SIZED ACCESS HATCHES ARE TO BE INSTALLED TO ALLOW ACCESS FOR INSTALLATION, COMMISSIONING, MAINTENANCE, CLEANING AND REMOVAL.

CONDENSATE LINE SHALL BE INSTALLED TO EACH AC UNIT. THIS SHALL BE INSTALLED AND INSULATED ALL AS PER THE STANDARD SPECIFICATION. MINIMUM SIZE OF CONDENSATE PIPES TO BE 25mm COPPER OR PLASTIC, INSULATED AND PUMPED OR BY GRAVITY FROM EACH FAN COIL / CASSETTE, DRAINS TO RUN 180 MM FALLS.

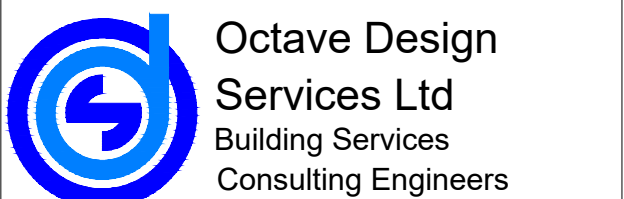
CONDENSATE PIPEWORK FROM VRF UNITS SHALL RUN WITHIN THE CEILING VOID TO THE NEAREST DRAINAGE POINT AND SHALL BE COMPLETE WITH IN LINE SELF SEALING TRAP.

THE TENDERING CONTRACTOR'S AIR CONDITIONING SPECIALIST SHALL BE RESPONSIBLE FOR THE INTERCONNECTING CONTROL WIRING BETWEEN THE INDOOR AND OUTDOOR UNITS AND CONTROL WIRING BETWEEN REMOTE CONTROLLER AND RELEVANT COMPONENTS. THIS WORK SHALL BE CO-ORDINATED WITH THE ELECTRICAL SUB CONTRACTOR FOR THE ROOFING AND TRUNKING OF THE CABLES.

CONTROL WIRING SHALL NOT BE RUN NEXT TO POWER WIRING. A MINIMUM SPACE OF 100mm BETWEEN BOTH CONTROL AND POWER CABLES SHALL APPLY.

P2 PRELIMINARY ISSUE	MR	CP	13.08.24
P1 PRELIMINARY ISSUE	MR	CP	26.07.24
REV DESCRIPTION	BY	CHKD	DATE

STATUS PRELIMINARY



The Heath Business & Technical Park
Runcorn, Cheshire, WA7 4QX
Tel: (+44) 01628 51 1016
Email: info@octavedesignservices.com
Web: www.octavedesignservices.com

mechanical • electrical • utilities • design • specification • project management

CLIENT



SITE UNIT 6A
PICCADILLY PLAZA
M1 4AJ

PROJECT BULLGOGI – MANCHESTER

TITLE PROPOSED HEATING & COOLING
LAYOUT – GROUND FLOOR &
ROOF PLANT

DATE APPOINTED JULY 2024	SCALE AT A1 1:50	DRAWN BY M.R.	CHECKED BY C.P.
PROJECT No. 01664	DRAWING No. 01664-M-06	REVISION P2	