

**NOTES:**

- UNLESS STATED OTHERWISE, ALL DIMENSIONS ARE IN MILLIMETERS.
- DO NOT SCALE FROM THIS DRAWING
- ALL SERVICE ROUTES AND EQUIPMENT LOCATIONS ARE INDICATIVE. ACTUAL LOCATIONS SHALL BE DETERMINED BY SITE DIMENSIONS.
- WHERE APPLICABLE, ALL DIMENSIONS SHALL BE CHECKED BY THE CONTRACTOR ON-SITE, PRIOR TO COMMENCEMENT OF ANY WORKS.
- THIS IS NOT A WORKING OR INSTALLATION DRAWING
- REQUIREMENTS OF THE HEALTH & SAFETY AT WORK ACT 1974 & SUBSEQUENT AMENDMENTS THERETO ARE BROUGHT TO THE ATTENTION OF ALL THOSE WHO DESIGN, INSTALL OR MAINTAIN PLANT AND EQUIPMENT SHOWN ON THESE DRAWINGS OR ARE REQUIRED TO ENTER AREAS SHOWN ON THESE DRAWINGS.
- ALL WORKS SHALL BE DESIGNED & INSTALLED IN FULL COMPLIANCE WITH THE APPROPRIATE EUROPEAN STANDARDS (BS EN) OR ALTERNATIVELY BRITISH STANDARDS (BS) IF A BS EN STANDARD DOES NOT EXIST FOR A SPECIFIC SYSTEM.
- THIS DRAWING IS PROVIDED TO INDICATE DESIGN INTENT FOR THE MECHANICAL SERVICES ARRANGEMENTS AND IS NOT TO BE USED AS A WORKING DRAWING. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILED DESIGN & INSTALLATION OF THE COMPLETE MECHANICAL SERVICES & ANCILLARY SERVICES INSTALLATIONS AND SHALL INCORPORATE THE LATEST ARCHITECTURAL AND STRUCTURAL DESIGN INFORMATION FOR INDIVIDUAL SYSTEM REQUIREMENTS, REFER TO THE MECHANICAL SERVICES SPECIFICATION.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, CONSULTANTS AND PROJECT MANAGERS DRAWINGS, SPECIFICATIONS AND SCHEDULES. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
  - MECHANICAL, ELECTRICAL & PUBLIC HEALTH SERVICES DRAWINGS
  - ENGINEERING SPECIFICATIONS
  - ARCHITECTURAL DRAWINGS & SPECIFICATIONS
  - STRUCTURAL ENGINEERING DRAWINGS & DOCUMENTATION
  - FIRE CONSULTANTS DRAWINGS & SPECIFICATIONS
  - MAIN CONTRACT PRELIMINARIES
  - PROJECT SPECIFIC DESIGNERS RISK ASSESSMENTS
  - ANY QUERIES RELATING TO SETTING OUT SHALL BE RAISED WITH THE PROJECT MANAGER.
- ANY AS INSTALLED INFORMATION AND FLOOR PLANS ISSUED TO THE CONTRACTOR MAY NOT BE FULLY UP TO DATE AND ACCURATE AND SHALL BE USED AS GUIDANCE ONLY.
- THE EXISTING INFORMATION CONTAINED ON THIS DRAWING HAS BEEN PRODUCED FROM A NON-DESTRUCTIVE VISUAL SURVEY AND RECORD DOCUMENTATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL INFORMATION PRIOR TO ANY SERVICES BEING ISOLATED AND STRIPPED OUT.
- THE CONTRACTOR IS TO MAKE REASONABLE ALLOWANCE TO ENSURE MECHANICAL SERVICES IN ALL AREAS OUTSIDE THE CONTRACTED AREA REMAIN LIVE AND FULLY OPERATIONAL DURING THE WORKS.
- THE MECHANICAL CONTRACTOR SHALL TAKE REASONABLE STEPS TO ENSURE THAT THE MECHANICAL INSTALLATION IS FULLY CO-ORDINATED WITH ELECTRICAL, PUBLIC HEALTH AND FIRE PROTECTION SERVICES INSTALLATION, WITH ALL OTHER CONTRACTOR SPECIALIST AND ALL OTHER TRADES.
- THE MECHANICAL CONTRACTOR WILL INCLUDE FOR THE PHASED WORKING ARRANGEMENTS AS DETAILED IN THE SPECIFICATION, ENSURING WHERE NECESSARY THE EXISTING AND NEW SYSTEMS OPERATE IN TANDEM UNTIL THE WORKS ARE COMPLETED. INCLUDE FOR RETURN VISITS TO PREVIOUSLY COMPLETED AREAS TO STRIP OUT ANY EXISTING SYSTEMS WHICH FINALLY BECOME REDUNDANT ON COMPLETION OF THE WORKS AND FOR ALL ASSOCIATED MAKING GOOD OF THE WORKS.
- FIRE PROTECTION TO BE PROVIDED WHEREVER A FIRE COMPARTMENT IS BROKEN AND SHALL BE SUITABLY FIRE STOPPED TO THE SAME STANDARD AS THE BARRIER/FLOOR/WALL BEING PENETRATED AND TO COMPLY WITH THE APPOINTED FIRE CONSULTANTS REQUIREMENTS.
- HOT WORKS PERMITS TO BE ARRANGED FOR SOLDERING ETC. WHERE REQUIRED.
- THE CONTRACTOR SHALL VALIDATE THE OPERATIONAL STATUS AND PERFORMANCE OF THE VENTILATION, HEATING, COOLING AND REFRIGERATION SYSTEMS WHICH WILL BE WORKED UPON.
- VALIDATE AIR VOLUMES DELIVERED TO THE ROOMS AT THE ENTRY TO THE ROOM AND ALL TERMINALS. VALIDATE THE AHU & FLOOR BRANCH DUCT AIR VOLUMES AND FAN PRESSURES WHERE ACCESSIBLE.
- TRACE THE CONTROLS WIRING AND VALIDATE THE PERFORMANCE OF ALL WALL & CEILING MOUNTED CONTROLLERS AND SENSORS DURING THE VALIDATION WORKS. CONFIRM WHAT EACH CONTROLLER AND SENSOR SERVES FOR SYSTEMS TO BE RETAINED AND THOSE FOR TO REMOVAL. PROVIDE MARKED UP DRAWINGS AND REPORT WITH FINDINGS.
- PROVIDE PHOTOGRAPHIC RECORD WHERE EXISTING SERVICES ARE IDENTIFIED TO HAVE DEFECTS WHICH REQUIRE RECTIFICATION.
- PROVIDE A PHOTOGRAPHIC RECORD AND REPORT OF THE ASSET NUMBERS / DETAILS FOR ALL ITEMS WHICH ARE DETAILED FOR REMOVAL AND ISSUE REPORT TO UCL.
- ALLOW FOR LTHW & CHW SYSTEM WATER SAMPLING AND CHEMICAL TESTING AND ISSUE OF REPORTS WITH 2ND SAMPLE POT ISSUED TO UCL FOR ALL SYSTEMS WHICH REQUIRE A DRAIN DOWN.
- MAIN CONTRACTOR TO PROVIDE ACCESS EQUIPMENT FOR HIGH LEVEL SERVICES ABOVE 3.5M.
- THE CONTRACTOR SHALL PROVIDE THE CLIENT WITH AN ELECTRONIC COPY OF THE OPERATIONAL AND MAINTENANCE MANUAL.

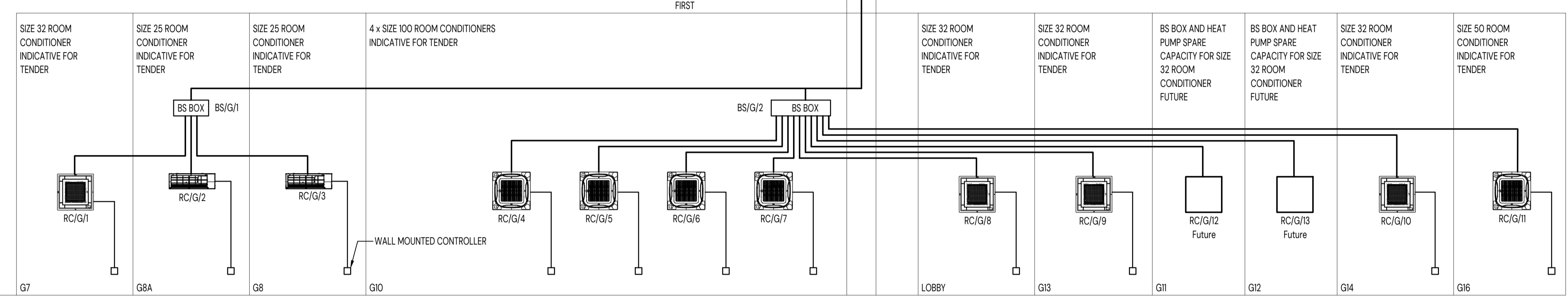
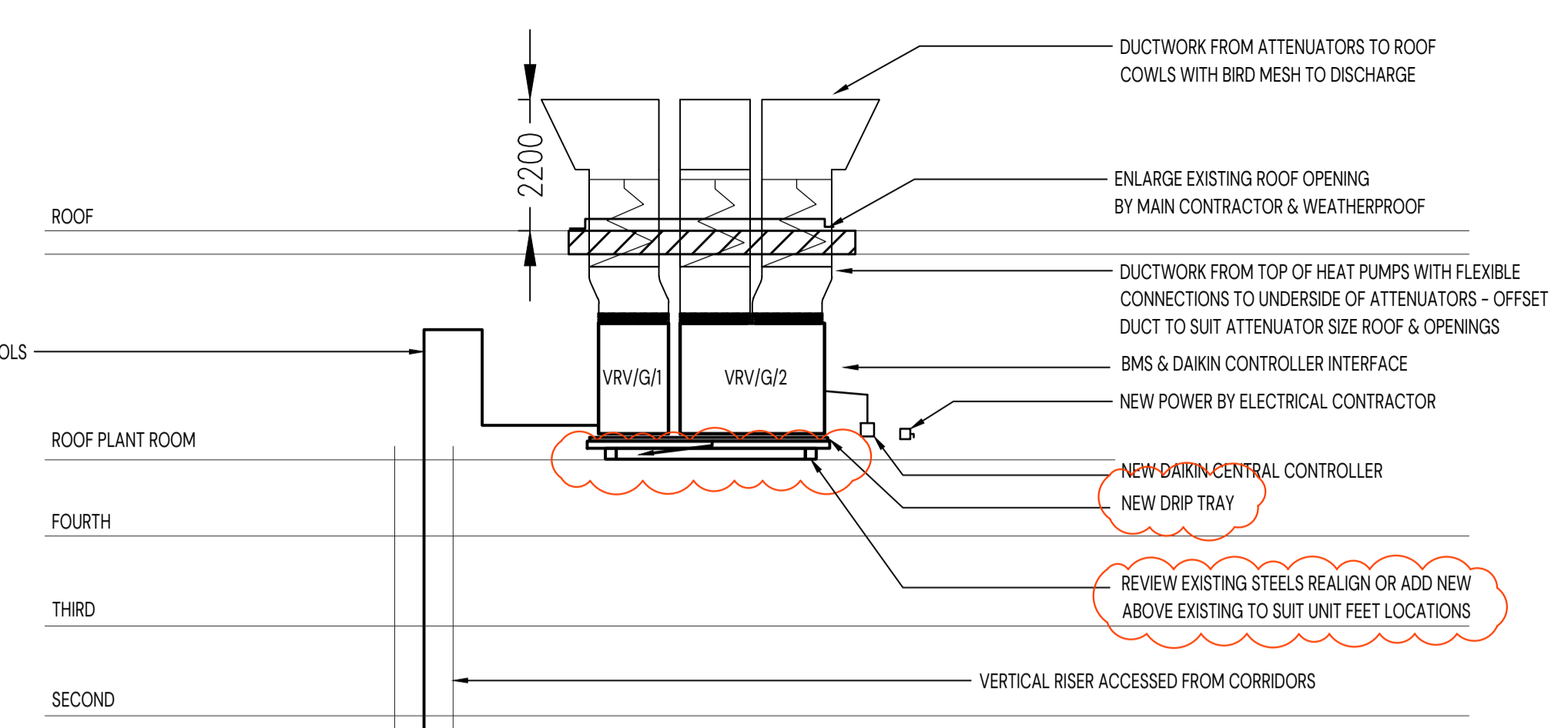
ROOM TERMINAL SIZES INDICATIVE FOR TENDER ONLY. FINAL WIRING, PIPEWORK SCHEMATIC BY DAIKIN. FINAL ROOM CONDITIONER, HEAT PUMP, BS BOX PIPE & CABLE SIZING BY CONTRACTOR

NEW HEAT PUMPS, BS BOX & ROOM CONDITIONERS CONNECT TO NEW DAIKIN CENTRAL CONTROLLER TO PLANT ROOM.

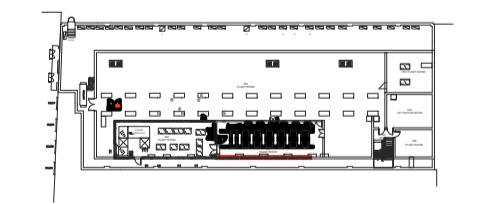
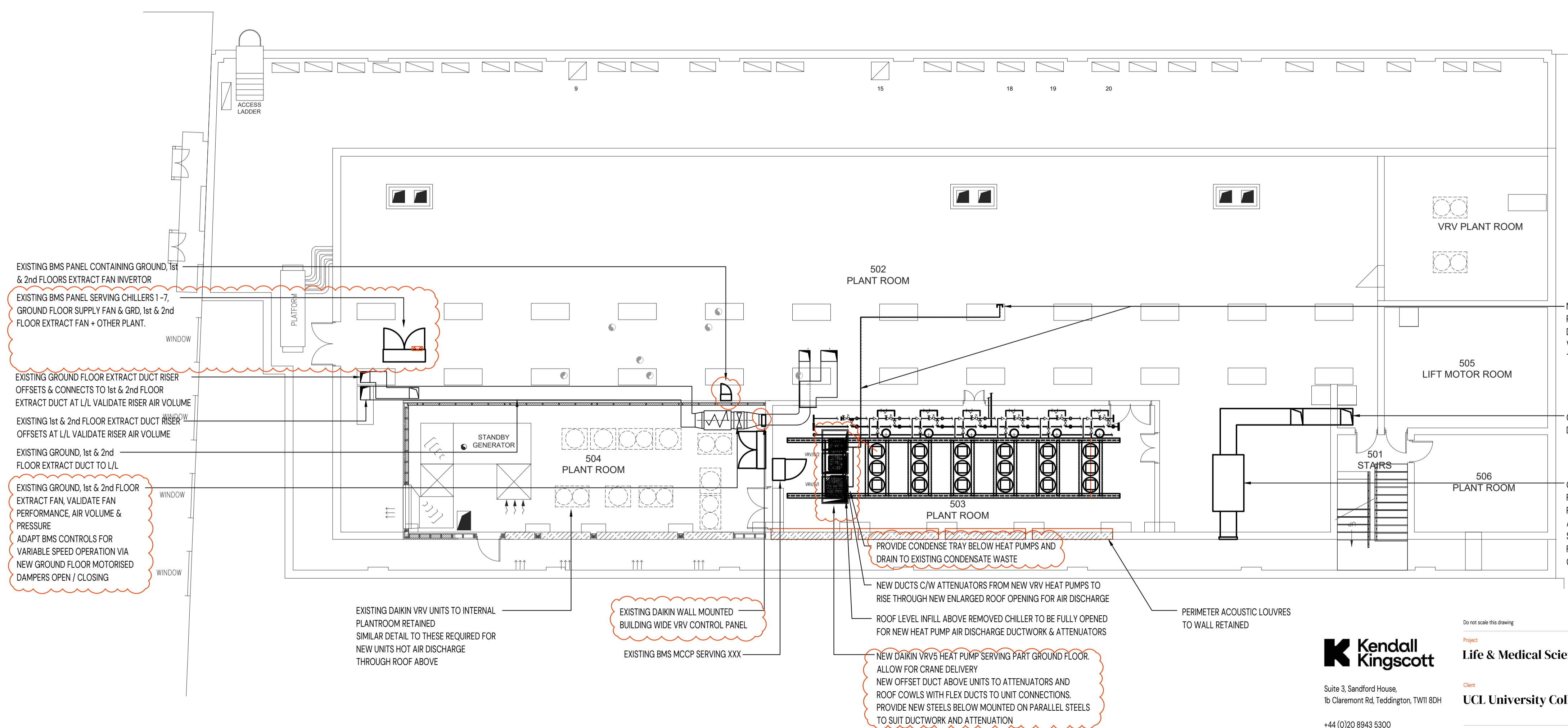
NEW HEAT PUMP & CONDITIONERS TO BE INTERFACED WITH EXISTING BMS

UNSWITCH SPUR TO ROOM CONDITIONER & BS BOX BY ELECTRICAL CONTRACTOR

NEW VRV REFRIGERANT PIPEWORK & CONTROLS CABLING TO ROOF SPACE PLANT ROOM & VERTICAL RISERS ON CABLE TRAY



VRV 5 INDICATIVE SCHEMATIC



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Project: Life & Medical Sciences

Client: UCL University College London

Date: 11/09/24

Scale: 1:100

File No: 240665 8405 C02

Do not scale this drawing

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Client: UCL University College London

Date: 11/09/24

Scale: 1:100

File No: 240665 8405 C02

Revision: C02

Project Number/Drawing Number: 240665 8405

Drawing Title: SW01 Raynes Institute Roof - Proposed Mechanical Services

Check all dimensions and levels on site

Rev	Date	By	Ap	Note
C02	16/01/25	KM	FM	Construction Issue - Updated as clouded
C01	15/11/24	KM	FM	Construction Issue
P03	15/11/24	KM	FM	Contract Issue
P02	01/10/24	KM	FM	Tender Addendum - Revised as clouded - VRV Heat pump discharge through roof updated and fan BMS note added. Schematic updated
P01	12/09/24	KM	FM	Tender Issue

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