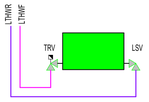
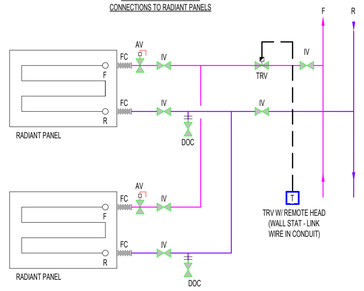
Rev C03

Drawing Number UOMRB-CAD-XX-01-DR-M-56002

TYPICAL ARRANGEMENT OF CONNECTIONS TO RADIATOR



TYPICAL ARRANGEMENT OF CONNECTIONS TO RADIANT PANELS



LEGEND:

	COLD WATER SERVICE - MAINS		HEATING - FLOW
	HOT WATER SERVICE - FLOW		HEATING - RETURN
	HOT WATER SERVICE - RETURN		PIPEWORK - CEILING VOID
	PIPEWORK - CEILING VOID		PIPEWORK - FLOOR VOID
	PIPEWORK - FLOOR VOID		PIPEWORK - HIGH LEVEL
	PIPEWORK - HIGH LEVEL		PIPEWORK - LOW LEVEL
	PIPEWORK - LOW LEVEL	T	THERMOSTAT
HWSF	HOT WATER SERVICE - FLOW		
HWSR	HOT WATER SERVICE - RETURN		
MCWS	MAINS COLD WATER SERVICE		

VALVE ABBREVIATIONS

CS	COMMISSIONING SETS	2P	2 PORT
CV	CHECK VALVE	DPCV	DIFFERENTIAL PRESSURE CONTROL VALVE
HM	HEAT METER	CP	COMPANION VALVE
IV	ISOLATION VALVE		
WM	WATER METER		

1 01 - Piped Services Design
1 : 50

NOTES:
THIS IS A DESIGN DRAWING NOT AN INSTALLATION DRAWING.
DIMENSIONS SHOULD NOT BE SCALED.
SITE DIMENSIONS TO BE CHECKED BEFORE PRODUCTION OF CRITICAL MANUFACTURING DRAWINGS.
THE DRAWING IS COPYRIGHT AND NO PART MAY BE REPRODUCED WITHOUT WRITTEN CONSENT.

DOMESTICS NOTES:

1. All CONCEALED PIPEWORK TO BE INSULATED.
2. ALL HOT AND COLD TERMINAL BRANCHES TO BE 15mm AND SOLID END CONNECIONS UNLESS OTHERWISE STATED
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE PARTICULAR PROJECT SPECIFICATION AND ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.
4. AAV's TO BE INSTALLED TO ALL HIGH POINTS.
5. DC's TO BE INSTALLED TO ALL LOW POINTS.
6. ALL FLOW MEASUREMENT DEVICES SHALL BE INSTALLED ATB LEAST 10 DIAMETERS UPSTREAM and 5 DIAMETERS DOWNSTREAM OF ANY FITTINGS
7. PROVIDE TERMINAL BRANCH ISOLATION ON ALL HOT & COLD WATER OUTLETS.
8. COLD WATER BELOW 20°C AFTER RUNNING THE TAP FOR AT LEAST 2 MINUTES HOT WATER ABOVE 50°C AFTER RUNNING THE TAP FOR AT LEAST 1 MINUTE.
9. ALL HOT WATER OUTLETS SERVING WASH HAND BASINS TO BE BLENDED TO 43°C MAXIMUM.
10. CWS PIPEWORK TO BE INSTALLED IN COPPER
11. HEATING PIPEWORK TO BE INSTALLED IN HEAVY GRADE MILD STEEL.
12. EXPOSED PIPEWORK WITHIN ROOMS TO BE NON-INSULATED AND PAINTED TO ARCHITECTS PREFERENCE (RAL 9010).

HEATING & COOLING NOTES:

1. FINAL CONNECTIONS TO BE MADE TO SUIT UP TO DATE ARCHITECTS LAYOUT
2. AAVS TO BE INSTALLED TO ALL HIGH POINTS.
3. DC's TO BE INSTALLED TO ALL LOW POINTS.
4. ALL FLOW MEASUREMENT DEVICES WILL BE INSTALLED AT LEAST 10 DIAMETERS UPSTREAM AND 5 DIAMETERS DOWNSTREAM OF ANY FITTINGS.
5. IV's AND C6s TO BE INSTALLED ON MAIN BRANCHES.
6. ALL HEATING FLOW AND RETURN PIPEWORK TO BE 15mm UNLESS OTHERWISE STATED
7. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE PARTICULAR PROJECT STANDARD SPECIFICATION & AND ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWING
8. THIS DRAWING IS FOR COSTING PURPOSE ONLY INSTALLATION DRAWINGS TO BE PROVIDED BY THE MECHANICAL CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATION
9. THE MECHANICAL CONTRACTOR SHALL COORDINATE ALL MECHANICAL SERVICES
10. ALL PIPEWORK WITHIN CEILING VOID/FLOOR VOID/RISERS TO BE THERMAL INSULATED IN ACCORDANCE WITH THE SPECIFICATION
11. FLUSHING BYPASS VALVES SHALL BE INSTALLED AS BSRIA APPLICATION GUIDE 1/89
12. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR EXPANSION ON ALL PIPEWORK BY INCLUDING FOR BELLOWS,EXPANSION LOOPS AND ANCHOR POINTS.
13. ALL TAIL CONNECTIONS TO BE HARD PIPES
14. HEATING PIPEWORK TO BE PAINTED AS PER ARCHITECTS DETAILS RAL 9010 WITH TRADITIONAL SADDLED BRACKETS OR RING BRACKETS
15. ALL PIPEWORK PASSING THROUGH FIRE BARRIERS & WALLS TO PASS THROUGH FIRE SLEEVES. ALL PIPEWORK PASSING THROUGH WALLS, FLOORS, STRUCTURE SHALL BE SLEEVED.
16. ALLOW A DOUBLE PIPE SET WHEREVER PIPES PASS THROUGH WALLS, CEILINGS OR FLOORS TO ALLOW FOR POSSIBLE STRUCTURAL OBSTRUCTIONS
17. DRAIN COCKS TO BE INSTALLED AT LOW POINTS & AIR VENTS AT ALL HIGH POINTS
18. CONTRACTOR SHALL ALLOW FOR ALL ADDITIONAL BENDS & FITTINGS NECESSARY TO AVOID OTHER SERVICES ETC.
19. ALLOWANCE TO BE MADE FOR DRILLING HOLES THROUGH WALLS FOR THE INSTALLATION OF NEW PIPEWORK AND MAKING GOOD ON COMPLETION.
20. ALL EXPOSED HEATING PIPEWORK TO REMAIN UNINSULATED

HOLD NOTE: FINAL DISTRIBUTION DEPENDENT ON EXISTING SERVICES ROUTING TO ENABLE RE-USE OF EXISTING BUILDERSWORK HOLES AND FIXINGS

FOR BUILDING SECTIONS REFER TO DRAWING: UOMRB-CAD-XX-XX-DR-M-56005

Rev	
C03	STAGE 4 ISSUE - MCC COMMENTS INCORPORTATED
	By: JD Chkd: JFH Date: 06.12.24 App: JCF
C02	STAGE 4 CONTRACT ISSUE - RADIATOR LOCATION REVISED
	By: JD Chkd: JFH Date: 06.09.24 App: JCF
C01	STAGE 4 CONTRACT ISSUE
	By: JN Chkd: JFH Date: 16.08.24 App: JCF

Status	Description	Stage
A4	STAGE 4A COMPLETED	4

Client: The University of Manchester

Project: UNIVERSITY OF MANCHESTER RUTHERFORD BUILDING

Drawing: MECHANICAL SERVICES PIPED SERVICES FIRST FLOOR GENERAL ARRANGEMENT LAYOUT

CAD 21 LTD BUILDING SERVICES & ENERGY CONSULTING ENGINEERS

NEWCASTLE ▫ TEESSIDE ▫ YORKSHIRE ▫ NORTH WEST

Drawing Number	Revision
UOMRB-CAD-XX-01-DR-M-56002	C03

Scale	Size
As indicated	A1

Drawing Origins :
RBUM-IBI-XX-XX-M3-A-000002 Rev 241108