

NOTES

- DO NOT SCALE FROM THIS DRAWING
- ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION OF PARTS, ORDERING MATERIALS OR COMMENCING WORKS
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS AND SCHEDULES
- ANY PENETRATION THROUGH FLOOR, SEEK STRUCTURAL ENGINEERS APPROVAL BEFORE COMMENCEMENT
- ALL PLUMB AND EQUIPMENT SHALL BE INSTALLED FULLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS
- EACH PART TO BE SIZED TO PROVIDE ADRN WITH A 5 DEGREE DIFFERENTIAL
- TANKS SHOULD HAVE MINIMUM HEIGHT TO WIDTH RATIO OF 3:1
- TANK SET POINT TEMPERATURE SHOULD BE CONTROLLED VIA TM-TH16-E WET PIPCKET SENSORS AT THE SHOWN POSITIONS
- TYPICAL CONTROL - GAHH THERMO OFF WHEN TH16(2) IS MORE THAN 65°C AND GAHH THERMO ON WHEN TH16 IS LESS THAN 55°C
- GAHH INTERNAL PRIMARY SIDE PUMP IS VARIABLE SPEED (0-30 L/M) AND IS ABLE TO PROVIDE 77MPA EXTERNAL HEAD AT 17.5M MAXIMUM DISTANCE 60M FROM GAHH TO PHEX
- SECONDARY SIDE PUMP TO BE CONTROLLED VIA 0-10V SSVA AND SHOULD BE VARIABLE FLOW UP TO 30 L/M
- SECONDARY SIDE FLOW AND TEMPERATURE TO BE MONITORED BY THE GAHH USING THE G-150X KIT
- MAXIMUM OF 16 GAHH UNITS OPERATING IN A SINGLE CONTROL GROUP
- PUMPED RETURN TO ENTER IN THE BOTTOM OF THE TANK BEFORE THE LAST TANK TO PREVENT DE-STRATIFICATION
- ADEQUATE PROVISION SHOULD BE MADE TO PREVENT CONDENSATE FROM COLLECTING AROUND THE OUTDOOR UNITS
- IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO PROVIDE ADEQUATE PROTECTION AGAINST FREEZING OF PIPE WORK IF THE WINTER CIRCUIT FREEZES AND DAMAGES THE EQUIPMENT THE WARRANTY WILL BECOME VOID. ALL WATER SYSTEMS SHOULD BE DESIGNED, INSTALLED AND COMMISSIONED IN ACCORDANCE WITH INDUSTRY GOOD PRACTICE. GUIDELINES SUCH AS, BUT NOT LIMITED TO: BSRIA GUIDE B02/2005 - WATER SYSTEM COMMISSIONING, BSRIA GUIDE B02/011 - PRE-COMMISSIONING OF PIPEWORK SYSTEMS, BSRIA GUIDE B05/2005 - WATER TREATMENT FOR CLOSED HEATING & COOLING SYSTEMS, CIBSE COMMISSIONING CODE W - WATER DISTRIBUTION SYSTEMS, CIBSE HEAT NETWORKS CODE OF PRACTICE FOR THE UK CPH 2015
- THE CONTRACTOR SHOULD MAKE THE NECESSARY ARRANGEMENTS TO ENSURE THE DESIGN OF THE SYSTEM MEETS THE REQUIREMENT OF THE APPLICATION AND COMPLY WITH ALL CURRENT BUILDING REGULATIONS
- ALL ELECTRICAL WORK MUST BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT VERSION OF BS7671

LEGEND

- AAV AUTOMATIC AIR VENT
IV ISOLATING VALVE
DOC DRAIN OFF COCK
NRV NONE RETURN VALVE
SV SAFETY VALVE
STR STRAINER
FC FLEXIBLE CONNECTION
TEMPERATURE GAUGE
PRESSURE GAUGE
PUMP
TM-TH16-E TEMPERATURE SENSOR
3 PORT VALVE
2 PORT VALVE

FOR COMMENT
NOT FOR SITE USE

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CONSOLUX
CONSOLUX M&E CONSULTING LTD.
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
London Office
25 Pockley
London W11 0DW
Tel: +44 (0)207 724 3030
Fax: +44 (0)207 617 7385
mail@consolux.co.uk
www.consolux.co.uk
Liverpool Office
The Cotton Exchange
Liverpool L2 9XR
Tel: +44 (0)151 706 9469
Fax: +44 (0)151 707 7169

Project
LONDON ROAD FIRE STATION
FIRE STATION, LONDON ROAD,
MANCHESTER, M1

Drawing Title
MECHANICAL SERVICES
HOT WATER HEAT PUMP SCHEMATIC

Date:	Design By:	Drawn By:	Scale:
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TENDER

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