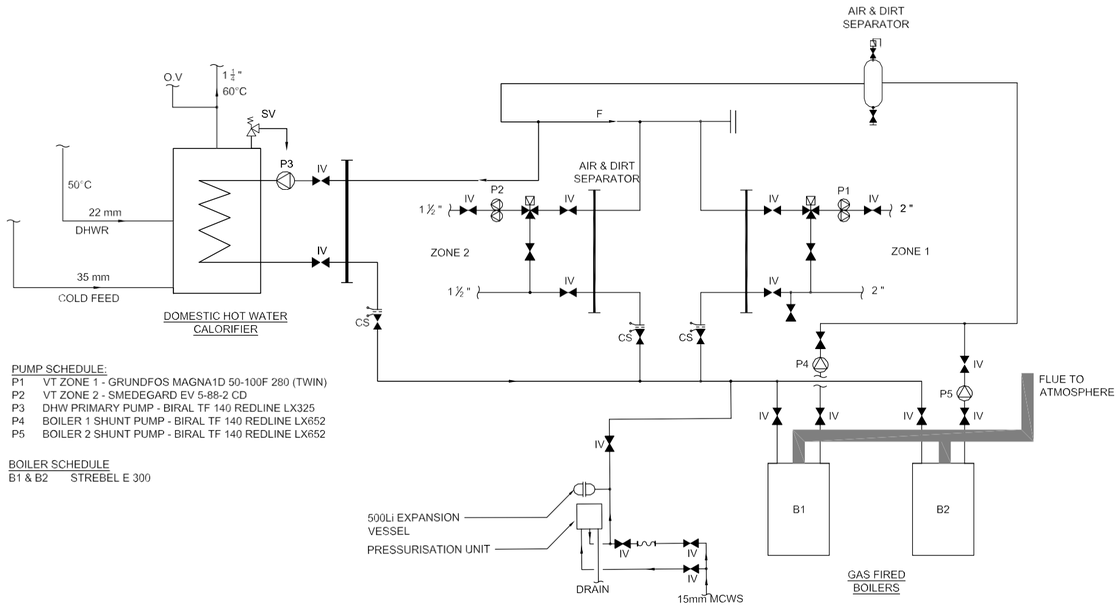

PUMP SCHEDULE:

P1	VT ZONE 1 - GRUNDFOS MAGNA1D 50-100F 280 (TWIN)
P2	VT ZONE 2 - SMEDEGARD EV 5-88-2 CD
P3	DHW PRIMARY PUMP - BIRAL TF 140 REDLINE LX325
P4	BOILER 1 SHUNT PUMP - BIRAL TF 140 REDLINE LX652
P5	BOILER 2 SHUNT PUMP - BIRAL TF 140 REDLINE LX652

BOILER SCHEDULE

B1 & B2	STREBEL E 300

ARCHITECT'S DRAWING REFERENCE	REVISION
XXXXXXXXXXX	XX

LEGEND

- PIPEWORK BELOW GROUND
- PIPEWORK AT LOW LEVEL
- PIPEWORK AT HIGH LEVEL
- PIPEWORK IN CEILING VOID
- PIPEWORK RISES/ DROP
- PIPEWORK RISES/ DROP C/W
- IV (NC) ISOLATION VALVE (NORMALLY CLOSED)
- IV ISOLATION VALVE
- NRV NON RETURN VALVE
- DRV DOUBLE REGULATING VALVE
- 3-PORT CONTROL VALVE C/W ACTUATOR
- 2-PORT CONTROL VALVE C/W ACTUATOR
- DRAIN
- CS COMMISSIONING SET WITH ORIFICE PLATE
- TRV THERMOSTATIC RADIATOR VALVE (TRV)
- LSV LOCKSHIELD VALVE
- PICV PRESSURE INDEPENDENT CONTROL VALVE
- SV SAFETY VALVE AND DISCHARGE PIPE TO DRAIN
- STR STRAINER
- FC FLEXIBLE CONNECTION
- A ANCHOR POINT
- EXPANSION BELLOW
- G EXPANSION GUIDE
- P PRESSURE GAUGE
- T TEMPERATURE GAUGE
- T TEMPERATURE SENSOR
- P PRESSURE SENSOR
- Pd DIFFERENTIAL PRESSURE SWITCH
- M METER
- BMS BMS LINK
- C SPACE CONTROLLER
- LTHW RADIATOR
- LST LOW SURFACE TEMPERATURE (LST) RADIATOR
- ELECTRIC PANEL HEATER
- LST LST ELECTRIC PANEL HEATER
- DIRECTION OF AIR FLOW
- ROOM HEATED BY INDIVIDUAL UNDERFLOOR ROOM HEATING CIRCUITS WITH LOCAL THERMOSTATIC CONTROL

RTHL	RISE TO HIGH LEVEL
RTA	RISE TO ABOVE
RFB	RISE FROM BELOW
DTLL	DROP TO LOW LEVEL
DFA	DROP FROM ABOVE
DFB	DROP TO BELOW
CV	CEILING VOID
HL	HIGH LEVEL
LL	LOW LEVEL

NOTES - GENERAL

1. DO NOT SCALE FROM THIS DRAWING.
2. THIS IS NOT AN INSTALLATION DRAWING
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE MECHANICAL AND ELECTRICAL PERFORMANCE SPECIFICATIONS, AND ALL ACCOMPANYING TENDER DRAWINGS AND SPECIFICATIONS, INCLUDING ARCHITECTURAL, STRUCTURAL ENGINEERING, CIVIL ENGINEERING, MEP AND OTHER THIRD PARTY DESIGNERS.
4. ALL SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE RELEVANT STANDARDS AND WORKMANSHIP CLAUSES DETAILED WITHIN THE ACCOMPANYING SPECIFICATION (WHERE PROVIDED).
5. THE DESIGN AND INSTALLATION SHALL COMPLY WITH THE BUILDING REGULATIONS, BRITISH STANDARDS, EU LEGISLATION, STATUTE, CIBSE GUIDES, CIBSE COMMISSIONING CODES, B&ES, H&S GUIDANCE AND ACOP'S, THE GAS REGULATIONS AND ALL OTHER APPLICABLE REGULATIONS.
6. PRIOR TO ANY WORKS, THE CONTRACTOR SHALL REQUEST A COPY OF THE ASBESTOS REGISTER/REPORT DETAILING THE LOCATION OF ANY EXISTING ASBESTOS. SHOULD THE CONTRACTOR COME ACROSS ANY SUSPICIOUS MATERIALS, THEY SHOULD STOP WORK IMMEDIATELY AND INFORM THE SITE AGENT.
7. THE CONTRACTOR SHALL ALLOW FOR SPECIALIST COMMISSIONING OF ALL MECHANNICAL AND PUBLIC HEALTH SYSTEMS BY THE MANUFACTURER OR MANUFACTURERS APPOINTED AGENT.
8. FOLLOWING COMPLETION OF THE INSTALLATION, THE SYSTEMS SHALL BE TESTED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
9. ALL EQUIPMENT SHALL BE INSTALLED, TESTED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
10. THE CONTRACTOR SHALL INCLUDE FOR ALL NECESSARY FIRE STOPPING, SLEEVES AND DAMPERS TO SUIT THE PROPOSED FIRE STRATEGY.
11. PRIOR TO COMMENCING THE WORKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEKING APPROVAL OF THE PROPOSALS BY THE GAS AND WATER AUTHORITIES.
12. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SEEK CONFIRMATION OF ACCEPTANCE OF THE PROPOSALS BY THE BUILDING CONTROL OFFICER.
13. A FINAL SITE MEASURE SHALL BE CARRIED OUT BY THE CONTRACTOR PRIOR TO ORDERING OF PLANT OR EQUIPMENT.
14. ACCESS PANELS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR TO ALLOW ELECTRICAL, ISOLATORS, CONTROLLERS, ETC. TO BE EASILY ACCESSED AND MAINTAINED.

DESIGNERS RISK ASSESSMENTS

RESIDUAL RISKS	ACTIONS
1. ALL SERVICES ARE TO BE INSTALLED AT HIGH LEVEL IN CEILING VOIDS LEADING TO POSSIBLE FALLS FROM HEIGHTS OR DROPPING OF HEAVY EQUIPMENT ONTO OTHERS.	USE SAFE WORKING PLATFORMS AND SAFE WORKING PRACTICES. ENSURE THAT PERSONNEL ARE EXCLUDED FROM THE VICINITY BY THE USE OF BARRIERS.
2. SITE DELIVERY OF MATERIALS NAD LARGER ITEMS OF PLANT, E.G. AHU'S, DUCTWORK, PIPEWORK, HEAT EMITTERS AND AIR TERMINALS LEADING TO INJURY HAZARD	ENSURE THAT A SAFE WORKING SCAFFOLD PLATFORM IS PROVIDED WITH NETTING TO PREVENT ACCIDENTAL DROPPING OF MATERIALS TO BELOW
3. DUE TO THE AGE OF THE BUILDING, THE PRESENCE OF ASBESTOS CONTAINING MATERIALS IS A POSSIBILITY	REFER TO THE ASBESTOS REGISTER FOR THE BUILDING AND CARRYOUT A REFURBISHMENT / DEMOLITION SURVEY PRIOR TO COMMENCING ANY WORKS.

DO NOT SCALE FROM THIS DRAWING.
CHECK ON SITE AND REPORT ALL DISCREPANCIES TO CLARK DEGNAN LIMITED.

NOTES - LTHW HEATING SYSTEMS

1. THE CONTRACTOR SHALL ALLOW FOR THE FIXING, TAKING DOWN FOR DECORATION AND RE-FIXING OF ALL RADIATORS (WHERE APPLICABLE).
2. ALL PIPEWORK SHALL BE FULLY INSULATED IN ACCORDANCE WITH THE TIMSA BUILDING SERVICES COMPLIANCE GUIDE. INSULATION SHALL BE APPLIED TO ALL CONCEALED SERVICES (I.E. IN SERVICE VOIDS, OR BOXED IN) AND IN PLANTROOMS.
3. THE INSULATION SHALL BE KINGSPAN KOOLTHERM OR EQUAL AND APPROVED.
4. PRIOR TO THE APPLICATION OF INSULATION, ALL NEW LTHW PIPEWORK SHALL BE HYDRAULICALLY PRESSURE TESTED FOR NOT BE LESS THAN 30 MINUTES AT 3.0Barg.
5. ALL RADIATORS SHALL BE PROVIDED WITH A TAMPERPROOF THERMOSTATIC RADIATOR VALVE (TRV) IN THE FLOW AND A LOCKSHIELD VALVE IN THE RETURN.
6. ALL FINAL POSITIONS OF PLANT SHALL BE AGREED WITH THE ENGINEER PRIOR TO INSTALLATION.
7. THE CONTRACTOR SHALL INCLUDE FOR MANUAL AIR VENTS AT HIGH POINTS AND DRAIN COCKS AT LOW POINTS WITHIN THE PIPE WORK.
8. ALL PIPEWORK SHALL BE SUITABLE LABELLED WITH DIRECTIONAL ARROWS, COLOUR CODING AND TEST DESCRIPTIONS.
9. UPON COMPLETION, THE CONTRACTOR SHALL CARRY OUT THE FOLLOWING ON THE LTHW SYSTEMS:
   - FILL AND VENT THE SYSTEM AND CARRY OUT A COLD FLUSH
   - DRAIN DOWN THE SYSTEM
   - FILL AND VENT THE SYSTEM AND CARRY OUT A HOT FLUSH
   - DRAIN DOWN THE SYSTEM
   - FILL AND VENT THE SYSTEM AND APPOINT A SPECIALIST CONTRACTOR TO ADD AN APPROPRIATE INHIBITOR TO THE CORRECT CONCENTRATION, SUITABLE FOR THE INSTALLED BOILERS.
11. THE HEATING SYSTEM FLOW AND RETURN DESIGN WATER TEMPERATURES ARE 45/35.
12. ANY PIPEWORK WITHIN PARTITION WALL BUILD-UP TO BE INSTALLED JOINT FREE WITH PULLED BENDS.

Rev	Amendment	Date	By
T1	TENDER ISSUE	09.09.22	CD

Meridian Trust

zeco
https://zecoenergy.com

Client: MERIDIAN ACADEMIES TRUST (CMAT)

Project Title: SAWTRY JUNIOR ACADEMY DECARBONISATION WORKS

Drawing Title: MECHANICAL SERVICES EXISTING LTHW HEATING PLANT SCHEMATIC

Drawn By	Checked By	Approved By
MK	DWW	CD

Contract No.	Date	Scale @ A1
22259	05.09.22	1:50@A1

Status: TENDER

Drawing Number: 22259-CDL-XX-00-SC-M-3601

Rev: T1

Suitability: TE