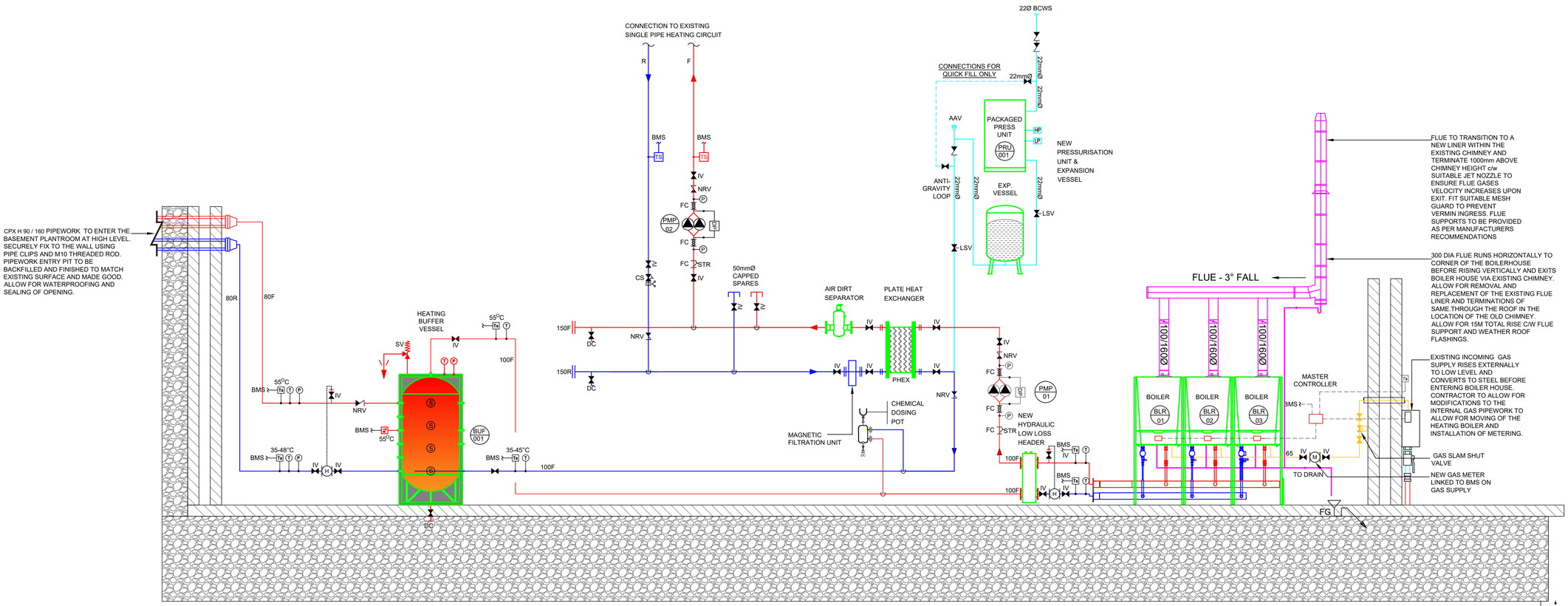
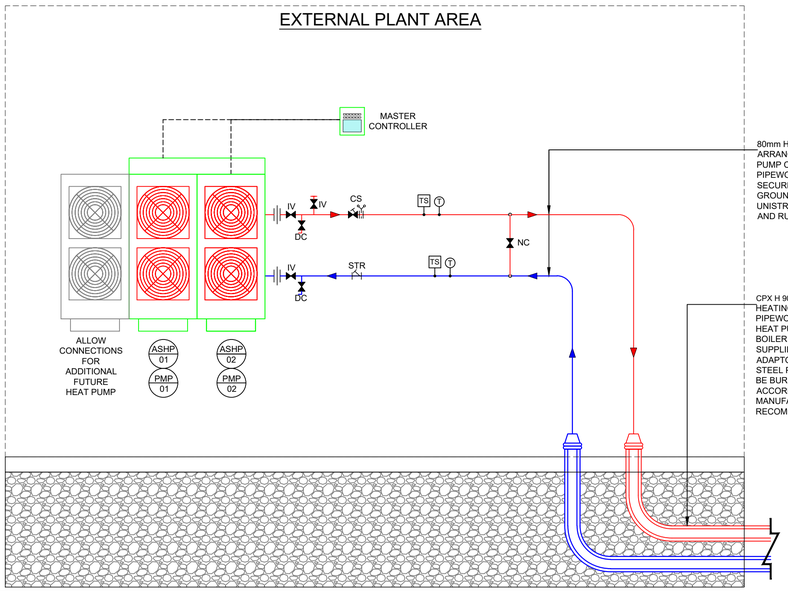
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING WORKING DRAWINGS

BOILERHOUSE SCHEMATIC



EXTERNAL PLANT AREA



AIR TO WATER HEAT PUMP SCHEDULE

ITEM	MAKE/MODEL	NOMINAL HEATING CAPACITY (EN14511)	SIZE	SCOP @ NOMINAL OUTPUT	DESIGN TEMPERATURES	REFRIGERANT	COMPRESSOR TYPE	POWER SUPPLY	NOTES:
ASHP 01	HIGH TEMPERATURE AIR SOURCE HEAT PUMP.	32.8W	2200X1130X2136 LXWXH	3.95	55°C FLOW TEMPERATURE @ A7 / W55	R290	SEMI-HERMETIC	400/3ph/50Hz	ASHP TO BE SUPPLIED WITH MASTER/SLAVE CONTROLLER TO ENABLE STEPPED PERFORMANCE c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS. HEAT PUMPS TO BE PROVIDED WITH INTEGRAL HYDRAULIC CONNECTOR KIT WITH FLANGED CONNECTION FOR HEATING FLOW AND RETURN.
ASHP 02	HIGH TEMPERATURE AIR SOURCE HEAT PUMP.	32.8W	2200X1130X2136 LXWXH	3.95	55°C FLOW TEMPERATURE @ A7 / W55	R290	SEMI-HERMETIC	400/3ph/50Hz	ASHP TO BE SUPPLIED WITH MASTER/SLAVE CONTROLLER TO ENABLE STEPPED PERFORMANCE c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS. HEAT PUMPS TO BE PROVIDED WITH INTEGRAL HYDRAULIC CONNECTOR KIT WITH FLANGED CONNECTION FOR HEATING FLOW AND RETURN.

BOILER SCHEDULE

ITEM	MAKE/MODEL	OUPUT DUTY @ 50 / 30 °C:	GAS CONSUMPTION (m3/Hr)	SIZE	WEIGHT (EMPTY)	FLUE	NOTES:
BOILER 1	CONTRACTOR SELECTION	122kW	11.9	690X595X1050	127kg	C13 100/150mm	BOILER TO BE SUPPLIED c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS
BOILER 2	CONTRACTOR SELECTION	122 kW	11.9	690X595X1050	127kg	C13 100/150mm	BOILER TO BE SUPPLIED c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS
BOILER 3	CONTRACTOR SELECTION	122 kW	11.9	690X595X1050	127kg	C13 100/150mm	BOILER TO BE SUPPLIED c/w ALL PIPE FITTINGS, PUMPS AND FINAL CONNECTORS

PUMP SCHEDULE

ITEM	CIRCUIT	DUTY	STATIC HEAD	TYPE	POWER	CONTROLS
P1	BUFFER PRIMARY LOOP	12.5 kg/s	55 kPA	TWIN HEAD INLINE	230v/1ph/50Hz	VARIABLE SPEED PUMP c/w DIFFERENTIAL PRESSURE CONTROLS & BACNET BMS LINK
P2	HEATING CIRCUIT	12.5 kg/s	120 kPA	TWIN HEAD INLINE	230v/1ph/50Hz	VARIABLE SPEED PUMP c/w DIFFERENTIAL PRESSURE CONTROLS & BACNET BMS LINK

BUFFER VESSEL SCHEDULE

ITEM	MAKE/MODEL	CAPACITY:	PRESSURE RATING	SIZE:	NOTES:
BFF 01	750 LITRE BUFFER VESSEL SUITABLE FOR LARGE VOLUME STORAGE OF HOT WATER	750 LITRES	3 Bar	1970mmH x 750mmØ	PRE INSULATED - FACTORY FITTED. SENSOR POCKETS TO BE PROVIDED ALONG THE VERTICAL FACE OF THE BUFFER VESSEL FOR TEMPERATURE MONITORING.

PLATE HEAT EXCHANGER SCHEDULE

ITEM	CIRCUIT	HEAT OUTPUT	F&R TEMP PRIMARY SIDE °C	F&R TEMP SECONDARY SIDE °C	MIN PLATE AREA
PHE1	GROUND FLOOR HEATING CIRCUIT	426kW	55 / 45	55 / 45	38-42m²

PRESSURISATION UNIT & EXPANSION SCHEDULE

ITEM	TYPE	VESSEL CAPACITY	VESSEL DIAMETER
PRU001	WALL MOUNTED FILL UNIT WITH FLOOR STANDING EXPANSION VESSEL	500 LITRE	650MM MAX

LTHW HEATING LEGEND

- ISOLATION VALVE
- NON RETURN CHECK VALVE
- DOUBLE REGULATING VALVE
- COMMISSIONING VALVE
- COMMISSIONING SET
- THREE PORT CONTROL VALVE
- THREE PORT VALVE
- TWO PORT CONTROL VALVE
- ANGLE PRESSURE RELIEF SAFETY VALVE
- MEASURING STATION
- LOCKSHIELD VALVE
- DEADWEIGHT VALVE
- PRESSURE RELIEF SAFETY VALVE
- PRESSURE INDEPENDENT CONTROL VALVE
- DIFFERENTIAL PRESSURE VALVE
- DIFFERENTIAL PRESSURE VALVE C/W TWO PORT CONTROL
- ANGLE VALVE
- STRAINER
- FLEXIBLE CONNECTION
- ANCHOR POINT
- EXPANSION GUIDE
- EXPANSION BELLOWS
- DRAINCOCK C/W HOSE UNION
- HEAT METER
- METER
- SINGLE PUMP
- TWIN PUMP
- DIFFERENTIAL PRESSURE SENSOR
- TEMPERATURE GAUGE
- TEMPERATURE SENSOR
- PRESSURE GAUGE
- PRESSURE SENSOR
- ROOM SENSOR
- AUTOMATIC AIR VENT
- MANUAL AIR VENT

- PIPEWORK AT LOW LEVEL
- PIPEWORK AT HIGH LEVEL
- PIPEWORK IN CEILING VOID
- PIPEWORK UNDER FLOOR
- HEATING FLOW PIPEWORK SERVING GF
- HEATING RETURN PIPEWORK SERVING GF
- HEATING FLOW PIPEWORK SERVING FF
- HEATING RETURN PIPEWORK SERVING FF
- HEATING FLOW/RETURN PIPEWORK SERVING CIRCULATION
- HEATING FLOW/RETURN PIPEWORK CONSTANT TEMP

LPHW	LOW PRESSURE HOT WATER
MPHW	MEDIUM PRESSURE HOT WATER
HPHW	HIGH PRESSURE HOT WATER
VTC	VARIABLE TEMPERATURE CIRCUIT
CTC	CONSTANT TEMPERATURE CIRCUIT
DTA	DROPS TO ABOVE
DTB	DROPS TO BELOW
RTA	RISES TO ABOVE
RFB	RISES FROM BELOW
C/V	CEILING VOID
H/L	HIGH LEVEL
L/L	LOW LEVEL

REV	DESCRIPTION	DRN	CKD	DATE
T01	TENDER ISSUE	SK	SF	08-05-2026

ISSUE: TENDER STAGE

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PROJECT TITLE: SCHOOLS ENERGY PATHFINDER - 8.2 OUR LADY OF MERCY

DRAWING TITLE: BOILERHOUSE HEATING SCHEMATIC

DRAWING REFERENCE	DRN	SCALE
3232-SMK-8.2-ZZ-SC-M-5601	SK	NTS @ A1

Project Originator Zone Level Type Role Number