PLANT & SERVICES EXTERNALLY LOCATED

PLANT & SERVICES INTERNALLY LOCATED

NOVA330 AIR SOURCE HEAT PUMP No. 1 HP 01

Discharge air

Discharge air

Discharge air

DC

PRV/ SV

IV

OP

IV

AT 30°C DELTA T & −5°C AMBIENT TEMPERATURE

225kW | 1.78l/s

50ø | 133Pa/m

50ø

70°C

IV

BUFFER VESSEL BV 01

ASHP SECONDARY PUMP

P 01

IV

70°C

2000L BUFFER VESSEL – SIZE TBC

IV BYPASS N/C

50ø

50ø

40°C

IV

IV

40°C

AT 30°C DELTA T & −5°C AMBIENT TEMPERATURE

225kW | 1.78l/s

50ø | 133Pa/m

AIR/DIRT SEPARATOR

ADS 01

IV

IV

50ø

125ø LLH

EXISTING NEW

IV

35ø BCWS TO CONNECT TO EXISTING

PRV

SV

DCV

COMBINED UNVENTED KIT

EXISTING NEW

IV

35ø HWS TO CONNECT TO EXISTING

DESTRAP PUMP

NRV

IV

HWP 01

HWP 02

HWP 03

35ø

EXPANSION VESSEL

XXL

DC

BCWS TO CONNECT TO EXISTING

NEW EXISTING

CT PUMP

3 PORT CONTROL VALVE

VT PUMP

70°C

80ø CT HTG F

50ø VT HTG F

DRV

EXISTING RADIATORS ARE TO BE REPLACED WITH NEW TO SUIT NEW OPERATING TEMPERATURES

VT HTG SYSTEM

40°C

C/S

50ø VT HTG R

80ø CT HTG R

EXISTING GAS FIRED WATER HEATER TO BE REPLACED WITH 3 NO. LOCHINVAR MODEL 8-455-12

NEW EXISTING

IV

STR

OP

40ø

N/C

PICV

AHU 01

AHU 02

3 PORT VALVES TO BE REPLACED WITH 2 PORT PICV TO IMPROVE RETURN TEMPERATURES

EXISTING AHU COILS ARE TO BE REPLACED WITH NEW TO SUIT NEW OPERATING TEMPERATURES – VALIDATIONS REQUIRED TO ASCERTAIN PERFORMANCE OF EXISTING COILS

22ø

LSV

QUICK FILL TEMPORARY CONNECTION (TO BE DISCONNECTED AFTER FILLING)

ANTI-GRAVITY LOOP

AAV

EXP 01

EXP' VESSEL

PU 01

PACKAGED PRESSURISATION UNIT

RPZ BACKFLOW VALVE

M

NEW PRESSURISATION UNIT & EXPANSION VESSEL

MCWS

Mod.	Date:	Mod.	Date:	Mod.	Date:	Mod. P1	Date: JUN 25

	Drawn	Checked	Lvl.	Approved	Drawn	Checked	Lvl.	Approved	Drawn	Checked	Lvl.	Approved	Drawn	Checked	Lvl.	Approved
Name						LW							JM	LW		LW
Signature	.....		.....		.....		.....				.....				.....	

Project No.	PR250113
Building No.	B_NO
Site/Location	WREXHAM COLEG
Department	CAD
Discipline/Type	MECH
Designer	ORKA
Scale	NTS@A1
Contract No.	2025-0005
Drawing Category	D_CAT

Sureserve Energy Services Public Buildings

WREXHAM COLEG CAMBRIA, BLOCK E
PROPOSED HEATING SCHEMATIC

Drg. No. PR250113-M-003

Mod. P1