Legend:

shut-off valve	balancing valve
motorized PIC valve	pump
relief valve	drain
3-way mixing valve	internal heat exchanger
check valve	plate heat exchanger
supply line	hydronic unit heater
return line	building boundary
heat supply	

NE-01 J.W. INGLIS BUILDING

DHW NW-Zone SW-Zone SE-Zone NE-Zone

1,200 kW hydronic heating (existing)
?? kW DHW (existing)

75°C
50°C
50°C
50°C

4" 85°C
4" 75°C

440 kW Natual Gas Boiler
440 kW Natual Gas Boiler
440 kW Natual Gas Boiler

4"

Connection to NE01 (Phase 2)

NE-03 ARCHITECTURAL ECOLOGY

approx. 31 kW hydronic heating (existing)

16 kW DHW tank (existing)

260 kW Natural Gas Boiler — to be removed (Phase 2)

Connection to NE03 (Phase 3)

Bioenergy Plant

max. 85°C, 206 kPa (30 PSI)

connection to central boiler plant (Phase 3)

4"

85°C max

300 kW Biomass Boiler
2,000 l Heat Storage Tank

NE-02 JOINERY

Workshop
Offices
Mazzanine

2"
72 kW radiant floor heating (Phase 2)
18 kW ?} hydronic radiators (Phase 2)
3 kW DHW tank (Phase 2)

1¼"?
1¼"

4" 4"

1¼"? existing

supply from ? kW gas boiler in NE-21 (to be removed)

supply of new NE-21 & NE-23 buildings ? kW (Phase 3)

NE-04 CARPENTRY

Workshop
Offices
Mazzanine

94 kW hydronic unit heaters (Phase 2)
18 kW hydronic radiators (existing)
3 kW DHW tank (Phase 2)

4"
1¼"
4"

Supply from ? m² solar collector field on canopy (Phase 3)

supply of new NE-25 & NE-27 buildings ? kW (Phase 3)

NE-06 PLUMBING

Workshop
Class Rooms (North)
Offices (South)
Mazzanine

1½"
2½"
82 kW hydronic unit heaters (Phase 2)
<44 kW hydronic radiators (existing)
<44 kW hydronic radiators (existing)
<10 kW DHW tank 250 liter (existing)

1½"?
1½"?
1½"

?°C ?°C

existing existing

?? kW heat exchanger (Phase 2)

44 kW Natural Gas Boiler
44 kW Natural Gas Boiler
?? kW Natural Gas Steam Boiler

NE-08 WELDING

Roof
Class Rooms & Offices & Canteen
Mechanical Room

3"
approx. 5 x 50 kW coils in existing roof-top make-up air heaters (Phase 2)
?? kW hydronic unit heaters and/or fan coils (Phase 2)
<10 kW DHW tank (Phase 2)

4"

Connection to NE10, NE12, NE09, laundry facility (Phase 3)