mode (WWSD).

Note: The tekmar controller is resetting the boiler supply water temperature typically between 140°F and 200°F. The boiler high limit aquastat on the boiler should be set to approx. 200°F to act as high limit cut out.

Playroom
18-2
Manifold #4 (Underfit)
Bed 3
Manifold #3 (Underfit)
Entry
Manifold #2 (underfit)
Outdoor Sensor
Workshop
Garage (subzone)
Manifold #1 (slab on Grade)
3/4" Hepex Feeds to Remote Manifolds
054 RTU
M Bed
Manifold #5 (Underfit)
Kitchen/Living
Manifold #6 (Underfit)
Office/Media
Manifold #7 (Underfit)
Studio
Manifold #8 (Underfit)
Loop numbers for manifolds #5 - #8 still need to be determined
18-2
Boiler Enable
18-2
120VAC
DHW Enable
1"
24 VAC Transformer
Tekmar 371
Tekmar 368
3/4"
3/4" Pex Adaptors
PD
PB
PV
P1
P2
P3
P4
P5
P6
P7
P8
RFH Supply Sensor
4 Pipe Dia. Max.
1 1/4"
3/4"
Balance Valve
Letro Thermometer
Balance Valve
Check valve must be included with imbedded mix zone
Boiler Circuit
Injection Circuit
Radiant Circuit
Control Board
Variable Speed injection pump PV has intergral check valve removed
Grundfos model UPS15-58FRC pumps have intergral check valve installed in the discharge volute
Cold In
Boiler Supply Sensor
Backflov Prevente
Fill Valve
1/2"
Expansion Tank #60
120VAC
Hydrolevel
Thermal Fuse
18-2
Emergency Switch
Vent Damper
DHW Out
Aquastat
T&P Relief
1 1/4"
Ignition Control
Gas Valve
T&P Relief
Aquastat
1"
Buderus G-124X/32 L.P. Gas Boiler with Vent Damper 110,000 BTU/hr Approx. Net Output
Buderus L-160 42 Gallon Indirect Water Heater w/ Honeywell Aquastat

Balancing Imbedded Slab Zone:
Supply water temperature to radiant floor slab zone manifold #1 is reduced by 20 - 25°F in supply water temperature by adjusting balancing valve to compensate for higher supply water temperature requirements for underfit zones #2 - 8. Final balancing should wait until system is under design operating conditions with all zones operating and the return water temperature is approximately 10°F lower than the supply. Initial setting of valve handle is 45° handle position. Confirm with thermometer.

Pump Schedule

PB UPS15-58FRC @ speed 2	P4 UPS15-58FRC @ speed 2
PD UPS15-58FRC @ speed 2	P5 UPS15-58FRC @ speed 1
PV UPS15-58FRC @ speed 1	P6 UPS15-58FRC @ speed 2
P1 UPS15-58FRC @ speed 2	P7 UPS15-58FRC @ speed 1
P2 UPS15-58FRC @ speed 1	P8 UPS15-58FRC @ speed 1
P3 UPS15-58FRC @ speed 2	

Circulators have check valves installed in the discharge volute

Key To Common Symbols

Circulator
Swing Check Valve
Wirsbo supply Manifold
Supply Piping
Line Voltage Wiring
Air Eliminator
Spring Check Valve
Wirsbo Return Manifold
Return Piping
Low Voltage Wiring (Various colors)
Purge Valve
Balance Valve
3/4" Pipe Size
18-2 Wire Size
Dial Thermometer
Ball Valve
Pex Adaptor
Flow Direction
Service Switch