



Water Supply Summary

Project #:AppleBrookHouse2
July 29, 2018

Project Information

Project #: AppleBrookHouse2
Name:
Location:

Notes:

Supply Summary

Name	Temp	Total Fluid Vol	Total Flow	Head Loss ¹	Load ²	# Circuits	# Zones
Water Temperature	37.5	98.7	11.67	5.3	7,743	19	11
Water Temperature	54.1	31.9	10.50	22.7	6,648	5	1

(1) Head loss includes manifolds, circuits, and supply/return piping if specified, may also contain control valve losses. (2) Load includes all panel back losses.

Manifold Summary

Manifold Name	Circuits	Flowrate	Required Temp.	Supplied Temp.	Manifold Type	S/R Length ¹	S/R Pipe	Manifold Head Loss	Circuit Head Loss	S/R Head Loss	Total Head Loss ²
Manifold 1	6	4.70	38	38	TruFLOW Jr Valved w/ Balancing	-	-	0.2	5.1	0.0	5.3
Manifold 2	5	2.79	32	38	TruFLOW Jr Valved w/ Balancing	-	-	0.1	2.0	0.0	2.1
Manifold 3	5	10.50	54	54	TruFLOW Jr Valved w/ Balancing	-	-	1.1	21.5	0.0	22.7
Manifold 4	8	4.18	32	38	TruFLOW Jr Valved w/ Balancing	-	-	0.1	4.1	0.0	4.2
Total	24	22.17	54	-	-	-	-				22.7

(1) S/R Length = one way, (2) Total Head loss includes manifold, circuits and supply/return piping if specified.

Water Temperature (38 °C)

Manifold 1 (38 °C, TruFLOW Jr Valved w/ Balancing, 6 Circuits)

Circuit	Rooms Served	Total Length	Tube Spacing	Area Covered	Tubing	Flowrate	Head Loss ¹	Temp Drop ²	Load ³	Actuator	Valve Setting
B-1	Kitchen	44.8	200	9.3	hePEX 1/2"	1.01	1.9	11	777	Yes	0.76
B-2	Kitchen	3.8		0.0	hePEX 1/2"	0.38	0.0	11	1	Yes	0.42
B-3	-	4.3		0.0	hePEX 1/2"	0.00	0.0	11	0	Yes	0.25
B-4	Kitchen	4.1		0.0	hePEX 1/2"	0.38	0.0	11	1	Yes	0.42
B-5	Study	61.4	200	14.0	hePEX 1/2"	1.44	4.7	11	1,109	Yes	2.88
B-6	Kitchen	61.6	200	13.9	hePEX 1/2"	1.50	5.1	11	1,158	Yes	4.2
Total	-	180.1		37.2	-	4.70	5.1	-	3,047	6	

(1) Head loss for circuit tubing only. (2) Design Temp Drop (Estimated Actual Drop). (3) Load includes panel back losses.

Manifold 2 (38 °C, TruFLOW Jr Valved w/ Balancing, 5 Circuits)

Circuit	Rooms Served	Total Length	Tube Spacing	Area Covered	Tubing	Flowrate	Head Loss ¹	Temp Drop ²	Load ³	Actuator	Valve Setting
A-1	Main Bathroom	39.1	200	8.3	hePEX 1/2"	0.38	0.3	11	105	Yes	0.5
A-2	Ensuite	33.0	200	7.1	hePEX 1/2"	0.42	0.3	11	328	Yes	0.56
A-3	Bed 1	68.8	200	12.9	hePEX 1/2"	0.81	2.0	11	598	Yes	4.2
A-4	Bed 1	66.6	200	12.8	hePEX 1/2"	0.80	1.9	11	582	Yes	2.86
A-5	Hall 2	35.5	200	7.7	hePEX 1/2"	0.38	0.3	11	121	Yes	0.5
Total	-	242.9		48.8	-	2.79	2.0	-	1,733	5	

(1) Head loss for circuit tubing only. (2) Design Temp Drop (Estimated Actual Drop). (3) Load includes panel back losses.

Manifold 4 (38 °C, TruFLOW Jr Valved w/ Balancing, 8 Circuits)

Circuit	Rooms Served	Total Length	Tube Spacing	Area Covered	Tubing	Flowrate	Head Loss ¹	Temp Drop ²	Load ³	Actuator	Valve Setting
A-6	Bed 4	59.8	200	12.7	hePEX 1/2"	0.43	0.6	11	341	Yes	0.47
A-7	Bed 3	49.2	200	9.2	hePEX 1/2"	0.38	0.4	11	236	Yes	0.45
A-8	Bed 3	50.4	200	10.0	hePEX 1/2"	0.38	0.4	11	251	Yes	0.45
A-9	Bed 2	52.5	200	10.2	hePEX 1/2"	0.52	0.7	11	362	Yes	0.49
A-10	Bed 2	52.5	200	8.7	hePEX 1/2"	0.45	0.6	11	330	Yes	0.48
A-11	Hall 1	44.9	200	10.4	hePEX 1/2"	0.38	0.4	11	187	Yes	0.45
A-12	Basement	87.3	200	17.9	hePEX 1/2"	1.06	4.1	11	813	Yes	4.2
A-13	Basement	43.8	200	9.8	hePEX 1/2"	0.58	0.7	11	441	Yes	0.5
Total	-	440.5		88.7	-	4.18	4.1	-	2,962	8	

(1) Head loss for circuit tubing only. (2) Design Temp Drop (Estimated Actual Drop). (3) Load includes panel back losses.

Water Temperature (54 °C)

Manifold 3 (54 °C, TruFLOW Jr Valved w/ Balancing, 5 Circuits)

Circuit	Rooms Served	Total Length	Tube Spacing	Area Covered	Tubing	Flowrate	Head Loss ¹	Temp Drop ²	Load ³	Actuator	Valve Setting
B-8	Main Cottage	43.1	200	9.1	hePEX 1/2"	1.18	2.2	11	913	No	0.46
B-9	Main Cottage,WC	66.0	200	15.9	hePEX 1/2"	3.13	17.6	11	1,798	No	1.61
B-10	Main Cottage,Entrance	65.5	200	16.3	hePEX 1/2"	3.54	21.5	11	1,896	No	4.2
B-11	Main Cottage	36.1	200	7.1	hePEX 1/2"	0.92	1.2	11	708	No	0.42
B-12	Main Cottage	68.1	200	13.3	hePEX 1/2"	1.73	6.6	11	1,334	No	0.57
Total	-	278.8		61.7	-	10.50	21.5	-	6,648	0	

(1) Head loss for circuit tubing only. (2) Design Temp Drop (Estimated Actual Drop). (3) Load includes panel back losses.

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