

Project Information

For: Levi
 30 Bells Circle, Cambridge, Ma

Notes:

Design Information

Weather: Boston, Logan IAP, MA, US

Winter Design Conditions

Outside db 12 °F
 Inside db 70 °F
 Design TD 58 °F

Summer Design Conditions

Outside db 88 °F
 Inside db 75 °F
 Design TD 13 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 28 gr/lb

Heating Summary

Structure 36086 Btuh
 Ducts 6436 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 42522 Btuh

Sensible Cooling Equipment Load Sizing

Structure 20507 Btuh
 Ducts 5328 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.93
 Equipment sensible load 24027 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 886 Btuh
 Ducts 787 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 1673 Btuh

	Heating	Cooling
Area (ft²)	2210	2210
Volume (ft³)	17680	17680
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	94	47

Equipment Total Load (Sen+Lat) 25700 Btuh
 Req. total capacity at 0.70 SHR 2.9 ton

Heating Equipment Summary

Make n/a
 Trade n/a
 Model n/a
 AHRI ref. n/a
 Efficiency n/a
 Heating input
 Heating output 0 Btuh
 Temperature rise 0 °F
 Actual air flow 0 cfm
 Air flow factor 0 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat n/a

Cooling Equipment Summary

Make n/a
 Trade n/a
 Cond n/a
 Coil n/a
 AHRI ref. n/a
 Efficiency n/a
 Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 0 cfm
 Air flow factor 0 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0

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Heating Summary

Structure 7507 Btuh
Ducts 1447 Btuh
Central vent (0 cfm) 0 Btuh
(none)
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 8954 Btuh

Sensible Cooling Equipment Load Sizing

Structure 5582 Btuh
Ducts 1266 Btuh
Central vent (0 cfm) 0 Btuh
(none)
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.93
Equipment sensible load 6368 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 156 Btuh
Ducts 177 Btuh
Central vent (0 cfm) 0 Btuh
(none)
Equipment latent load 333 Btuh

	Heating	Cooling
Area (ft²)	466	466
Volume (ft³)	3728	3728
Air changes/hour	0.27	0.13
Equiv. AVF (cfm)	17	8

Equipment Total Load (Sen+Lat) 6701 Btuh
Req. total capacity at 0.70 SHR 0.8 ton

Heating Equipment Summary

Make
Trade
Model
AHRI ref
Efficiency 80 AFUE
Heating input 0 Btuh
Heating output 0 Btuh
Temperature rise 0 °F
Actual air flow 291 cfm
Air flow factor 0.033 cfm/Btuh
Static pressure 0 in H2O
Space thermostat

Cooling Equipment Summary

Make
Trade
Cond
Coil
AHRI ref
Efficiency 0 SEER
Sensible cooling 0 Btuh
Latent cooling 0 Btuh
Total cooling 0 Btuh
Actual air flow 291 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0.95

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Heating Summary

Structure 9872 Btuh
 Ducts 1774 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 11646 Btuh

Sensible Cooling Equipment Load Sizing

Structure 2845 Btuh
 Ducts 1533 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.93
 Equipment sensible load 4072 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 287 Btuh
 Ducts 215 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Equipment latent load 501 Btuh

	Heating	Cooling
Area (ft ²)	710	710
Volume (ft ³)	5680	5680
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	31	15

Equipment Total Load (Sen+Lat) 4573 Btuh
 Req. total capacity at 0.70 SHR 0.5 ton

Heating Equipment Summary

Make
 Trade
 Model
 AHRI ref
 Efficiency 80 AFUE
 Heating input 0 Btuh
 Heating output 0 Btuh
 Temperature rise 0 °F
 Actual air flow 285 cfm
 Air flow factor 0.024 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat

Cooling Equipment Summary

Make
 Trade
 Cond
 Coil
 AHRI ref
 Efficiency 0 SEER
 Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 285 cfm
 Air flow factor 0.065 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.90

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 Daily range M
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 Moisture difference 28 gr/lb

Heating Summary

Structure 5479 Btuh
 Ducts 1190 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 6669 Btuh

Sensible Cooling Equipment Load Sizing

Structure 4260 Btuh
 Ducts 1044 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.93
 Equipment sensible load 4934 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 126 Btuh
 Ducts 145 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Equipment latent load 271 Btuh

	Heating	Cooling
Area (ft²)	310	310
Volume (ft³)	2480	2480
Air changes/hour	0.33	0.16
Equiv. AVF (cfm)	13	7

Equipment Total Load (Sen+Lat) 5205 Btuh
 Req. total capacity at 0.70 SHR 0.6 ton

Heating Equipment Summary

Make
 Trade
 Model
 AHRI ref
 Efficiency 80 AFUE
 Heating input 0 Btuh
 Heating output 0 Btuh
 Temperature rise 0 °F
 Actual air flow 285 cfm
 Air flow factor 0.043 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat

Cooling Equipment Summary

Make
 Trade
 Cond
 Coil
 AHRI ref
 Efficiency 0 SEER
 Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 285 cfm
 Air flow factor 0.054 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.95

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 Design TD 13 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 28 gr/lb

Heating Summary

Structure 7683 Btuh
 Ducts 1447 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 9131 Btuh

Sensible Cooling Equipment Load Sizing

Structure 5253 Btuh
 Ducts 1265 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.93
 Equipment sensible load 6062 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 173 Btuh
 Ducts 177 Btuh
 Central vent (0 cfm) 0 Btuh
 (none)
 Equipment latent load 350 Btuh

Area (ft²) Heating 442 Cooling 442
 Volume (ft³) 3536 3536
 Air changes/hour 0.31 0.16
 Equiv. AVF (cfm) 18 9

Equipment Total Load (Sen+Lat) 6412 Btuh
 Req. total capacity at 0.70 SHR 0.7 ton

Heating Equipment Summary

Make
 Trade
 Model
 AHRI ref
 Efficiency 80 AFUE
 Heating input 0 Btuh
 Heating output 0 Btuh
 Temperature rise 0 °F
 Actual air flow 285 cfm
 Air flow factor 0.031 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat

Cooling Equipment Summary

Make
 Trade
 Cond
 Coil
 AHRI ref
 Efficiency 0 SEER
 Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 285 cfm
 Air flow factor 0.044 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.95

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