



**Load Short Form**  
**Entire House**  
**Harris Dudley Co.**



**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Infiltration	
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Lower Beds	d 1397	25400	14724	1052	1052
(Rest of House)	d 3041	39730	39482	1670	1670
Garage Heater	d 416	1123	217	15	15
Entire House	d 4853	66253	53374	2737	3567
Other equip loads		0	0		
Equip. @ 1.00 RSM			53267		
Latent cooling			0		
<b>TOTALS</b>	<b>4853</b>	<b>66253</b>	<b>53267</b>	<b>2737</b>	<b>3567</b>

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Load Short Form**  
**(Rest of House)**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	1670 cfm
Air flow factor	0.042 cfm/Btuh
Static pressure	1.60 in H2O
Space thermostat	

**COOLING EQUIPMENT**

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	1670 cfm
Air flow factor	0.040 cfm/Btuh
Static pressure	1.60 in H2O
Load sensible heat ratio	1.00

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Zone	p 1871	25499	39400	1072	1557
Main Zone	p 1170	14231	14260	598	564
(Rest of House)	d 3041	39730	39482	1670	1670
Other equip loads		0	0		
Equip. @ 1.00 RSM			39403		
Latent cooling			0		
<b>TOTALS</b>	<b>3041</b>	<b>39730</b>	<b>39403</b>	<b>1670</b>	<b>1670</b>

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Load Short Form**  
**Garage Heater**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	15 cfm
Air flow factor	0.014 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

**COOLING EQUIPMENT**

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	15 cfm
Air flow factor	0.071 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	1.00

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Garage	416	1123	217	15	15
Garage Heater	d 416	1123	217	15	15
Other equip loads		0	0		
Equip. @ 1.00 RSM			216		
Latent cooling			0		
<b>TOTALS</b>	<b>416</b>	<b>1123</b>	<b>216</b>	<b>15</b>	<b>15</b>

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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**Load Short Form**  
**Lower Beds**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Infiltration	
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	1052 cfm
Air flow factor	0.041 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

**COOLING EQUIPMENT**

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	1052 cfm
Air flow factor	0.071 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	1.00

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed 1 Zone p	246	1858	3152	77	223
Bed 2 Zone p	452	3886	4504	161	319
Bed 3 Zone p	346	8863	5931	367	419
Bed 4 Zone p	352	10793	6646	447	470
Lower Beds d	1397	25400	14724	1052	1052
Other equip loads		0	0		
Equip. @ 1.00 RSM			14695		
Latent cooling			0		
<b>TOTALS</b>	<b>1397</b>	<b>25400</b>	<b>14695</b>	<b>1052</b>	<b>1052</b>

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**Load Short Form**  
**Bed 1 Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed 1	158	1791	3152	74	223
Coats	22	67	0	3	0
Bath 1	66	0	0	0	0
Bed 1 Zone	246	1858	3152	77	223
Other equip loads		0	0		
Equip. @ 1.00 RSM			3146		
Latent cooling			0		
<b>TOTALS</b>	<b>246</b>	<b>1858</b>	<b>3146</b>	<b>77</b>	<b>223</b>

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**Load Short Form**  
**Bed 2 Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95		Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed 2	164	1777	2694	74	191
Hall 1	166	1245	1810	52	128
Stair 1	123	864	0	36	0
Bed 2 Zone	452	3886	4504	161	319
Other equip loads		0	0		
Equip. @ 1.00 RSM			4495		
Latent cooling			0		
<b>TOTALS</b>	<b>452</b>	<b>3886</b>	<b>4495</b>	<b>161</b>	<b>319</b>

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**Load Short Form**  
**Bed 3 Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95		Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed 3	158	4652	4369	193	309
WD	22	0	0	0	0
Hall 2	166	4211	1562	174	110
Bed 3 Zone	346	8863	5931	367	419
Other equip loads		0	0		
Equip. @ 1.00 RSM			5919		
Latent cooling			0		
<b>TOTALS</b>	<b>346</b>	<b>8863</b>	<b>5919</b>	<b>367</b>	<b>419</b>

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Load Short Form**  
**Bed 4 Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bed 4	164	4740	4401	196	311
Bath 2	66	0	0	0	0
Stair 2	123	6053	2245	251	159
Bed 4 Zone	352	10793	6646	447	470
Other equip loads		0	0		
Equip. @ 1.00 RSM			6633		
Latent cooling			0		
<b>TOTALS</b>	<b>352</b>	<b>10793</b>	<b>6633</b>	<b>447</b>	<b>470</b>

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.







**Load Short Form**  
**Main Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Infiltration	
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Living	490	6468	10493	272	415
Receiving	168	1070	350	45	14
Kitchen	392	6693	3417	281	135
Pantry	120	0	0	0	0
Main Zone	p 1170	14231	14260	598	564
Other equip loads		0	0		
Equip. @ 1.00 RSM			14232		
Latent cooling			0		
<b>TOTALS</b>	<b>1170</b>	<b>14231</b>	<b>14232</b>	<b>598</b>	<b>564</b>

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Load Short Form**  
**Master Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Information**

	Htg	Clg	Method	Infiltration
Outside db (°F)	14	95	Method	Simplified
Inside db (°F)	70	72	Construction quality	Average
Design TD (°F)	56	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	32	-16		

**HEATING EQUIPMENT**

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**

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Bed	299	7545	11990	317	474
Master Bath	196	2717	1276	114	50
Media	286	3802	6413	160	253
Dogs	34	0	0	0	0
WCloset	38	0	0	0	0
Stacked WD	18	0	0	0	0
Stair 3	144	1624	486	68	19
Foyer	128	40	15	2	1
Mud	157	1506	2827	63	112
Stair 4	123	4299	9581	181	379
Mech	184	0	0	0	0
Dining	264	3967	6813	167	269

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Master Zone	p	1871	25499	39400	1072	1557
Other equip loads			0	0		
Equip. @ 1.00 RSM				39321		
Latent cooling				0		
TOTALS		1871	25499	39321	1072	1557

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Load Multizone Summary Report

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

## Infiltration Summary

ZONE NAME	Heating				Cooling			
	Volume ft <sup>3</sup>	ACH	AVF cfm	HTM Btuh/ft <sup>2</sup>	Volume ft <sup>3</sup>	ACH	AVF cfm	HTM Btuh/ft <sup>2</sup>
Garage Heater	3328	0.44	24	2.8	3328	0.21	12	0.5
Master Zone	17778	0.38	111	2.8	17778	0.18	53	0.5
Main Zone	11700	0.38	73	2.8	11700	0.18	35	0.5
Bed 1 Zone	704	0	0	0	704	0	0	0
Bed 2 Zone	0	0	0	0	0	0	0	0
Bed 3 Zone	2768	0.51	23	2.8	2768	0.24	11	0.5
Bed 4 Zone	2818	0.61	29	2.8	2818	0.29	14	0.5
Entire House	39096	0.40	261	2.8	39096	0.19	124	0.5

## Load and AVF Summary

ROOMNAME	Area ft²	Htg load Btuh	Clg load Btuh	Htg AVF cfm	Clg AVF cfm
Garage	416	1123	217	15	15
Garage Heater	416	1123	217	15	15
Master Bed	299	7545	11990	317	474
Master Bath	196	2717	1276	114	50
Media	286	3802	6413	160	253
Dogs	34	0	0	0	0
WCloset	38	0	0	0	0
Stacked WD	18	0	0	0	0
Stair 3	144	1624	486	68	19
Foyer	128	40	15	2	1
Mud	157	1506	2827	63	112
Stair 4	123	4299	9581	181	379
Mech	184	0	0	0	0
Dining	264	3967	6813	167	269
Master Zone	1871	25499	39400	1072	1557
Living	490	6468	10493	272	415
Receiving	168	1070	350	45	14
Kitchen	392	6693	3417	281	135
Pantry	120	0	0	0	0
Main Zone	1170	14231	14260	598	564
Bed 1	158	1791	3152	74	223
Coats	22	67	0	3	0
Bath 1	66	0	0	0	0
Bed 1 Zone	246	1858	3152	77	223
Bed 2	164	1777	2694	74	191
Hall 1	166	1245	1810	52	128
Stair 1	123	864	0	36	0
Bed 2 Zone	452	3886	4504	161	319
Bed 3	158	4652	4369	193	309
WD	22	0	0	0	0
Hall 2	166	4211	1562	174	110
Bed 3 Zone	346	8863	5931	367	419
Bed 4	164	4740	4401	196	311
Bath 2	66	0	0	0	0
Stair 2	123	6053	2245	251	159
Bed 4 Zone	352	10793	6646	447	470
Entire House	4853	66253	53374	2737	3567

## Project Information

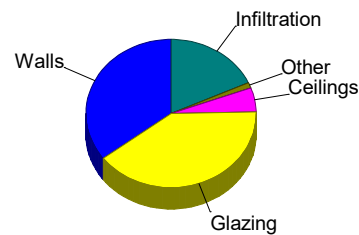
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<p><b>Location:</b>                  Salt Lake City Int'l AP, UT, US                  Elevation: <b>7800</b> ft                  Latitude: 41°N</p>	<p><b>Indoor:</b>                  Indoor temperature (°F) 70                  Design TD (°F) 56                  Relative humidity (%) 30                  Moisture difference (gr/lb) 31.8</p>	<p><b>Heating</b>                  70</p>	<p><b>Cooling</b>                  72</p>
<p><b>Outdoor:</b>                  Dry bulb (°F) 14                  Daily range (°F) -                  Wet bulb (°F) -                  Wind speed (mph) 15.0</p>	<p><b>Heating</b>                  14</p>	<p><b>Cooling</b>                  95</p>	<p>( M )</p>
<p><b>Infiltration:</b>                  Method Simplified                  Construction quality Average                  Fireplaces 1 (Average)</p>			

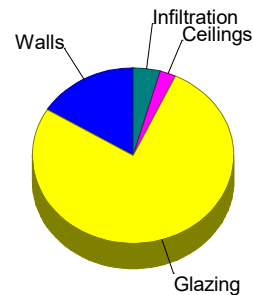
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	5.5	23410	35.3
Glazing	34.0	26493	40.0
Doors	0	0	0
Ceilings	1.2	3529	5.3
Floors	0.3	782	1.2
Infiltration	2.8	12038	18.2
Ducts	0	0	0
Piping	0	0	0
Humidification	0	0	0
Ventilation	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>66253</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.0	8643	16.2
Glazing	52.6	41031	76.9
Doors	0	0	0
Ceilings	0.5	1377	2.6
Floors	0	0	0
Infiltration	0.5	2324	4.4
Ducts	0	0	0
Ventilation	0	0	0
Internal gains	0	0	0
Blower	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>53374</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.087 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*

## Project Information

For: Lot 14  
Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

**Location:**

Salt Lake City Int'l AP, UT, US  
Elevation: **7800** ft  
Latitude: 41°N

**Outdoor:**

Dry bulb (°F)  
Daily range (°F)  
Wet bulb (°F)  
Wind speed (mph)

**Heating**

14  
-  
-  
15.0

**Cooling**

95  
26 ( M )  
63  
7.5

**Indoor:**

Indoor temperature (°F)  
Design TD (°F)  
Relative humidity (%)  
Moisture difference (gr/lb)

**Heating**

70  
56  
30  
31.8

**Cooling**

72  
23  
50  
-15.8

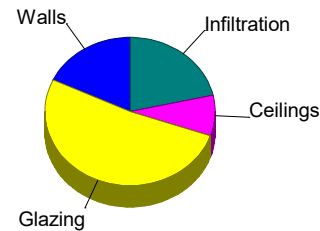
**Infiltration:**

Method  
Construction quality  
Fireplaces

Simplified  
Average  
1 (Average)

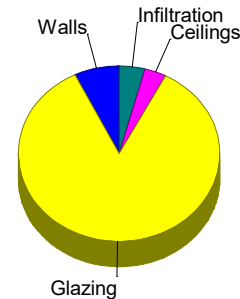
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	2.9	7134	18.0
Glazing	34.6	20556	51.7
Doors	0	0	0
Ceilings	1.4	3529	8.9
Floors	0	0	0
Infiltration	2.8	8511	21.4
Ducts	0	0	0
Piping	0	0	0
Humidification	0	0	0
Ventilation	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>39730</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.2	2835	7.2
Glazing	56.7	33628	85.2
Doors	0	0	0
Ceilings	0.5	1377	3.5
Floors	0	0	0
Infiltration	0.5	1643	4.2
Ducts	0	0	0
Ventilation	0	0	0
Internal gains	0	0	0
Blower	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>39482</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
Overall U-value = 0.073 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*



**Building Analysis**  
**Garage Heater**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Heating**

Component	Btuh/ft²	Btuh	% of load
Walls	0	0	0
Glazing	0	0	0
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	2.8	1123	100.0
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>1123</b>	<b>100.0</b>

**Cooling**

Component	Btuh/ft²	Btuh	% of load
Walls	0	0	0
Glazing	0	0	0
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.5	217	100.0
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>217</b>	<b>100.0</b>

Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.000 Btuh/ft²-°F

WARNING: window to floor area ratio = 0.0% - less than 5%.

*Bold/italic values have been manually overridden*





### Project Information

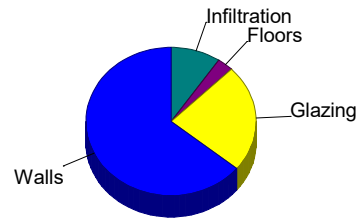
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

### Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

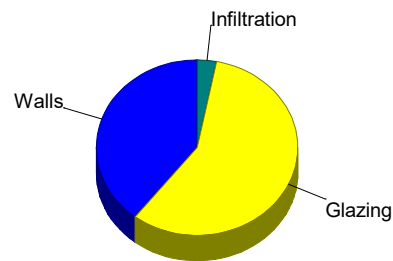
### Heating

Component	Btuh/ft²	Btuh	% of load
Walls	10.8	16276	64.1
Glazing	31.9	5937	23.4
Doors	0	0	0
Ceilings	0	0	0
Floors	1.1	782	3.1
Infiltration	2.8	2404	9.5
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>25400</b>	<b>100.0</b>



### Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	5808	39.4
Glazing	45.4	8452	57.4
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.5	464	3.2
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>14724</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.174 Btuh/ft²·°F

Data entries checked.

*Bold/italic values have been manually overridden*

## Project Information

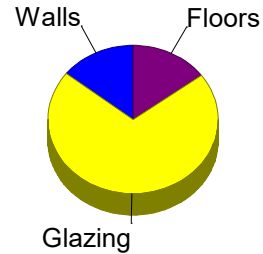
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	1.8	266	14.3
Glazing	31.9	1317	70.9
Doors	0	0	0
Ceilings	0	0	0
Floors	1.1	276	14.8
Infiltration	0	0	0
Ducts	0	0	0
Piping	0	0	0
Humidification	0	0	0
Ventilation	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>1858</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0	0	0
Glazing	76.4	3152	100.0
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0	0	0
Ducts	0	0	0
Ventilation	0	0	0
Internal gains	0	0	0
Blower	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>3152</b>	<b>100.0</b>

Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.081 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*

### Project Information

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

### Design Conditions

**Location:**

Salt Lake City Int'l AP, UT, US  
 Elevation: **7800** ft  
 Latitude: 41°N

**Outdoor:**

Dry bulb (°F)  
 Daily range (°F)  
 Wet bulb (°F)  
 Wind speed (mph)

**Heating**

14  
 -  
 -  
 15.0

**Cooling**

95  
 26 ( M )  
 63  
 7.5

**Indoor:**

Indoor temperature (°F)  
 Design TD (°F)  
 Relative humidity (%)  
 Moisture difference (gr/lb)

**Heating**

70  
 56  
 30  
 31.8

**Cooling**

72  
 23  
 50  
 -15.8

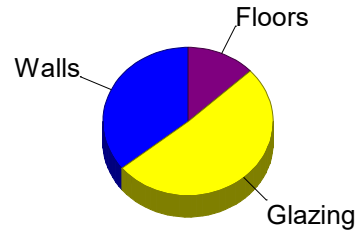
**Infiltration:**

Method  
 Construction quality  
 Fireplaces

Simplified  
 Average  
 1 (Average)

### Heating

Component	Btuh/ft²	Btuh	% of load
Walls	2.3	1392	35.8
Glazing	31.9	1987	51.1
Doors	0	0	0
Ceilings	0	0	0
Floors	1.1	507	13.0
Infiltration	0	0	0
Ducts	0	0	0
Piping	0	0	0
Humidification	0	0	0
Ventilation	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>3886</b>	<b>100.0</b>



### Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0	0	0
Glazing	72.4	4504	100.0
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0	0	0
Ducts	0	0	0
Ventilation	0	0	0
Internal gains	0	0	0
Blower	0	0	0
Adjustments	0	0	0
<b>Total</b>		<b>4504</b>	<b>100.0</b>

Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.065 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*

**Project Information**

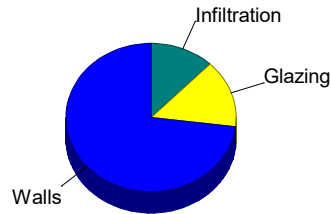
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

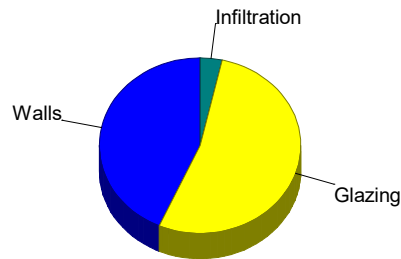
**Heating**

Component	Btuh/ft²	Btuh	% of load
Walls	19.1	6469	73.0
Glazing	31.9	1317	14.9
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	2.8	1077	12.2
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>8863</b>	<b>100.0</b>



**Cooling**

Component	Btuh/ft²	Btuh	% of load
Walls	7.6	2570	43.3
Glazing	76.4	3152	53.2
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.5	208	3.5
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>5931</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.366 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*

## Project Information

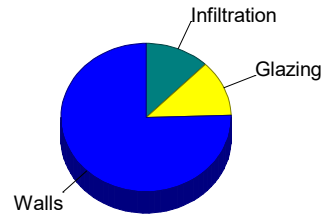
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

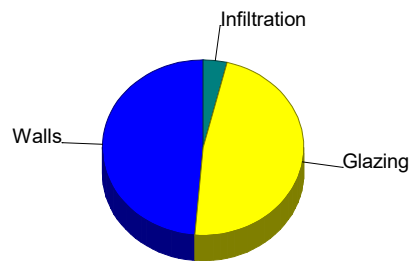
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	19.1	8149	75.5
Glazing	31.9	1317	12.2
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	2.8	1327	12.3
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>10793</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	7.6	3238	48.7
Glazing	76.4	3152	47.4
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.5	256	3.9
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>6646</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.361 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*

## Project Information

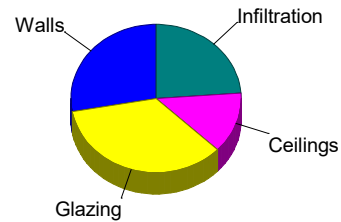
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

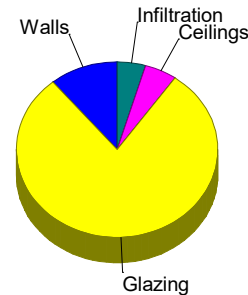
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	3956	27.8
Glazing	31.9	4988	35.0
Doors	0	0	0
Ceilings	1.6	1900	13.4
Floors	0	0	0
Infiltration	2.8	3388	23.8
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>14231</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.5	1572	11.0
Glazing	72.3	11293	79.2
Doors	0	0	0
Ceilings	0.6	741	5.2
Floors	0	0	0
Infiltration	0.5	654	4.6
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>14260</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.055 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*

## Project Information

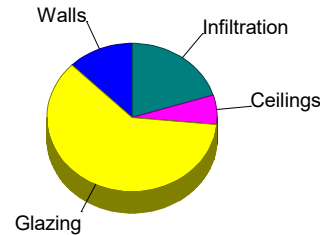
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

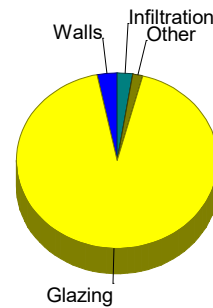
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	2.2	3179	12.5
Glazing	35.6	15569	61.1
Doors	0	0	0
Ceilings	1.1	1628	6.4
Floors	0	0	0
Infiltration	2.8	5123	20.1
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>25499</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.9	1263	3.2
Glazing	83.5	36512	92.7
Doors	0	0	0
Ceilings	0.4	635	1.6
Floors	0	0	0
Infiltration	0.5	989	2.5
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>39400</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
 Overall U-value = 0.089 Btuh/ft²-°F

Data entries checked.

*Bold/italic values have been manually overridden*



**Component Constructions**  
**Entire House**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> ·°F	Insul R ft <sup>2</sup> ·°F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw	n	119	0	0	0	0	0	0
	e	308	0	0	0	0	0	0
	s	196	0	0	0	0	0	0
	w	259	0	0	0	0	0	0
	all	882	0	0	0	0	0	0
12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	796	0.068	19.0	3.81	3031	1.51	1204
	e	244	0.068	19.0	3.81	927	1.51	368
	s	613	0.068	19.0	3.81	2335	1.51	928
	w	221	0.068	19.0	3.81	841	1.51	334
	all	1874	0.068	19.0	3.81	7134	1.51	2835
14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	n	196	0.341	0	19.1	3743	7.59	1487
	e	228	0.341	0	19.1	4354	7.59	1730
	s	114	0.341	0	19.1	2167	7.59	861
	w	228	0.341	0	19.1	4354	7.59	1730
	all	766	0.341	0	19.1	14618	7.59	5808
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh	n	196	0.047	11.0	2.63	516	0	0
	e	228	0.047	11.0	2.63	600	0	0
	s	114	0.047	11.0	0.52	58	0	0
	w	207	0.047	11.0	2.34	484	0	0
	all	745	0.047	11.0	2.23	1658	0	0

**Partitions**  
(none)

**Windows**

1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	n	84	0.570	0	31.9	2681	23.8	1997
	e	72	0.570	0	31.9	2282	65.7	4700
	s	267	0.570	0	31.9	8515	36.5	9737
	s	83	0.570	0	31.9	2633	36.5	3011
	s	83	0.570	0	31.9	2633	36.5	3011
	w	28	0.570	0	31.9	894	65.7	1841
	w	94	0.570	0	31.9	3008	65.7	6195
	w	21	0.570	0	31.9	670	65.7	1380
	all	731	0.570	0	31.9	23318	43.6	31872





8Acw-2w: Sky glazing, small, wood curb, no shaft lgt shaft, wd sash	49	1.160	0	65.0	3176	187	9158
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**Doors**

11D0: 11D0	n	77	0	0	0	0	0
	w	21	0	0	0	0	0
	all	98	0	0	0	0	0

**Ceilings**

16B-30ad: 16B-30ad		831	0	0	0	0	0
18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		2173	0.029	38.0	1.62	3529	0.63
							1377

**Floors**

19C-19cscp: 19C-19cscp		1879	0	0	0	0	0
		475	0	0	0	0	0
	all	2354	0	0	0	0	0
21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh		698	0.020	0	1.12	782	0
							0



**Component Constructions**  
**(Rest of House)**  
Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw								
	n	68	0	0	0	0	0	0
	e	100	0	0	0	0	0	0
	s	196	0	0	0	0	0	0
	w	220	0	0	0	0	0	0
	all	584	0	0	0	0	0	0
12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud								
	n	796	0.068	19.0	3.81	3031	1.51	1204
	e	244	0.068	19.0	3.81	927	1.51	368
	s	613	0.068	19.0	3.81	2335	1.51	928
	w	221	0.068	19.0	3.81	841	1.51	334
	all	1874	0.068	19.0	3.81	7134	1.51	2835

**Partitions**  
(none)

**Windows**

1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	n	84	0.570	0	31.9	2681	23.8	1997
	e	72	0.570	0	31.9	2282	65.7	4700
	s	267	0.570	0	31.9	8515	36.5	9737
	w	28	0.570	0	31.9	894	65.7	1841
	w	94	0.570	0	31.9	3008	65.7	6195
	all	545	0.570	0	31.9	17380	44.9	24469
8Acw-2w: Sky glazing, small, wood curb, no shaft lgt shaft, wd sash								
		49	1.160	0	65.0	3176	187	9158

**Doors**  
(none)

**Ceilings**

16B-30ad: 16B-30ad								
		415	0	0	0	0	0	0
18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins								
		2173	0.029	38.0	1.62	3529	0.63	1377



**Floors**

19C-19cscp: 19C-19cscp

	1879	0	0	0	0	0	0
	123	0	0	0	0	0	0
all	2002	0	0	0	0	0	0



**Component Constructions**  
**Lower Beds**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	n	196	0.341	0	19.1	3743	7.59	1487
	e	228	0.341	0	19.1	4354	7.59	1730
	s	114	0.341	0	19.1	2167	7.59	861
	w	228	0.341	0	19.1	4354	7.59	1730
	all	766	0.341	0	19.1	14618	7.59	5808
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh	n	196	0.047	11.0	2.63	516	0	0
	e	228	0.047	11.0	2.63	600	0	0
	s	114	0.047	11.0	0.52	58	0	0
	w	207	0.047	11.0	2.34	484	0	0
	all	745	0.047	11.0	2.23	1658	0	0

**Partitions**  
(none)

**Windows**

1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	s	83	0.570	0	31.9	2633	36.5	3011
	s	83	0.570	0	31.9	2633	36.5	3011
	w	21	0.570	0	31.9	670	65.7	1380
	all	186	0.570	0	31.9	5937	39.8	7403

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**

21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh		698	0.020	0	1.12	782	0	0
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**Component Constructions**  
**Garage Heater**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw	n	51	0	0	0	0	0	0
	e	208	0	0	0	0	0	0
	w	39	0	0	0	0	0	0
	all	298	0	0	0	0	0	0
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b>								
11D0: 11D0	n	77	0	0	0	0	0	0
	w	21	0	0	0	0	0	0
	all	98	0	0	0	0	0	0
<b>Ceilings</b>								
16B-30ad: 16B-30ad		416	0	0	0	0	0	0
<b>Floors</b>								
19C-19cscp: 19C-19cscp		352	0	0	0	0	0	0





**Component Constructions**  
**Master Zone**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation:	7800 ft	Design TD (°F)		56	23
Latitude:	41°N	Relative humidity (%)		30	50
<b>Outdoor:</b>		Moisture difference (gr/lb)		31.8	-15.8
<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>			
Dry bulb (°F)	14	Method		Simplified	
Daily range (°F)	-	Construction quality		Average	
Wet bulb (°F)	-	Fireplaces		1 (Average)	
Wind speed (mph)	15.0				

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> ·°F	Insul R ft <sup>2</sup> ·°F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw	n	68	0	0	0	0	0	0
	e	100	0	0	0	0	0	0
	s	196	0	0	0	0	0	0
	w	220	0	0	0	0	0	0
	all	584	0	0	0	0	0	0
12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	358	0.068	19.0	3.81	1363	1.51	542
	e	244	0.068	19.0	3.81	927	1.51	368
	s	233	0.068	19.0	3.81	888	1.51	353
	all	835	0.068	19.0	3.81	3179	1.51	1263
<b>Partitions</b> (none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	n	22	0.570	0	31.9	702	23.8	523
	e	72	0.570	0	31.9	2282	65.7	4700
	s	267	0.570	0	31.9	8515	36.5	9737
	w	28	0.570	0	31.9	894	65.7	1841
	all	388	0.570	0	31.9	12393	43.3	16800
8Acw-2w: Sky glazing, small, wood curb, no shaft lgt shaft, wd sash		49	1.160	0	65.0	3176	187	9158
<b>Doors</b> (none)								
<b>Ceilings</b>								
16B-30ad: 16B-30ad		415	0	0	0	0	0	0
18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		1003	0.029	38.0	1.62	1628	0.63	635
<b>Floors</b>								
19C-19cscp: 19C-19cscp		709	0	0	0	0	0	0
		123	0	0	0	0	0	0
	all	832	0	0	0	0	0	0







**Component Constructions**  
**Main Zone**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud								
	n	438	0.068	19.0	3.81	1668	1.51	663
	s	380	0.068	19.0	3.81	1447	1.51	575
	w	221	0.068	19.0	3.81	841	1.51	334
	all	1039	0.068	19.0	3.81	3956	1.51	1572
<b>Partitions</b> (none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	n	62	0.570	0	31.9	1979	23.8	1474
	w	94	0.570	0	31.9	3008	65.7	6195
	all	156	0.570	0	31.9	4988	49.1	7669
<b>Doors</b> (none)								
<b>Ceilings</b>								
18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins								
		1170	0.029	38.0	1.62	1900	0.63	741
<b>Floors</b>								
19C-19cscp: 19C-19cscp								
		1170	0	0	0	0	0	0







**Component Constructions**  
**Bed 1 Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b>								
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh								
	s	55	0.047	11.0	0.44	24	0	0
	w	92	0.047	11.0	2.63	242	0	0
	all	147	0.047	11.0	1.81	266	0	0
<b>Partitions</b> (none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	s	41	0.570	0	31.9	1317	36.5	1506
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b>								
21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh								
		246	0.020	0	1.12	276	0	0



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**Component Constructions**  
**Bed 2 Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b> Salt Lake City Int'l AP, UT, US Elevation: 7800 ft Latitude: 41°N			<b>Indoor:</b> Indoor temperature (°F) Design TD (°F) Relative humidity (%) Moisture difference (gr/lb)	<b>Heating</b> 70 56 30 31.8	<b>Cooling</b> 72 23 50 -15.8
<b>Outdoor:</b> Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	<b>Heating</b> 14 - - 15.0	<b>Cooling</b> 95 26 ( M ) 63 7.5	<b>Infiltration:</b> Method Construction quality Fireplaces	Simplified Average 1 (Average)	

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh								
	n	196	0.047	11.0	2.63	516	0	0
	e	228	0.047	11.0	2.63	600	0	0
	s	59	0.047	11.0	0.59	35	0	0
	w	115	0.047	11.0	2.10	242	0	0
	all	598	0.047	11.0	2.33	1392	0	0
<b>Partitions</b> (none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	s	41	0.570	0	31.9	1317	36.5	1506
	w	21	0.570	0	31.9	670	65.7	1380
	all	62	0.570	0	31.9	1987	46.4	2886
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b>								
21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh								
		452	0.020	0	1.12	507	0	0





**Component Constructions**  
**Bed 3 Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	e	96	0.341	0	19.1	1833	7.59	728
	s	55	0.341	0	19.1	1046	7.59	415
	w	188	0.341	0	19.1	3590	7.59	1426
	all	339	0.341	0	19.1	6469	7.59	2570

**Partitions**  
(none)

<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	s	41	0.570	0	31.9	1317	36.5	1506
--	---	----	-------	---	------	------	------	------

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





**Component Constructions**  
**Bed 4 Zone**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	n	196	0.341	0	19.1	3743	7.59	1487
	e	132	0.341	0	19.1	2521	7.59	1002
	s	59	0.341	0	19.1	1122	7.59	446
	w	40	0.341	0	19.1	764	7.59	303
	all	427	0.341	0	19.1	8149	7.59	3238

**Partitions**  
(none)

<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	s	41	0.570	0	31.9	1317	36.5	1506

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





**Component Constructions**  
**Bed 2**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b>								
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh								
	e	92	0.047	11.0	2.63	242	0	0
	s	59	0.047	11.0	0.59	35	0	0
	all	151	0.047	11.0	1.84	277	0	0
<b>Partitions</b>								
(none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	s	41	0.570	0	31.9	1317	36.5	1506
<b>Doors</b>								
(none)								
<b>Ceilings</b>								
(none)								
<b>Floors</b>								
21A-32w: Bg floor, light dry soil, 10' depth, hrd wd fir fnsh								
		164	0.020	0	1.12	183	0	0



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**Component Constructions**  
**Bed 1**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh								
	s	55	0.047	11.0	0.44	24	0	0
	w	92	0.047	11.0	2.63	242	0	0
	all	147	0.047	11.0	1.81	266	0	0
<b>Partitions</b> (none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	s	41	0.570	0	31.9	1317	36.5	1506
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b>								
21A-32w: Bg floor, light dry soil, 10' depth, hrd wd fir fnsh								
		158	0.020	0	1.12	177	0	0



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**Component Constructions**  
**Bath 1**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area	U-value	Insul R	Htg HTM	Loss	Clg HTM	Gain
		ft²	Btuh/ft²·°F	ft²·°F/Btuh	Btuh/ft²	Btuh	Btuh/ft²	Btuh
<b>Walls</b> (none)								
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b> 21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh		66	0.020	0	1.12	74	0	0





**Component Constructions**  
**Coats**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> (none)								
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b> 21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh		22	0.020	0	1.12	25	0	0







**Component Constructions**  
**Hall 1**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh	e	96	0.047	11.0	2.63	253	0	0
	w	75	0.047	11.0	1.82	136	0	0
	all	171	0.047	11.0	2.27	389	0	0

**Partitions**  
(none)

<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	w	21	0.570	0	31.9	670	65.7	1380
--	---	----	-------	---	------	-----	------	------

**Doors**  
(none)

**Ceilings**  
(none)

<b>Floors</b> 21A-32w: Bg floor, light dry soil, 10' depth, hrd wd flr fnsh		166	0.020	0	1.12	186	0	0
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**Component Constructions**  
**Stair 1**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
15B11-0wc-10: Bg wall, light dry soil, 2"x6" wood int frm, concrete wall, 10" thk, 1/2" gypsum board int fnsh	n	196	0.047	11.0	2.63	516	0	0
	e	40	0.047	11.0	2.63	105	0	0
	w	40	0.047	11.0	2.63	105	0	0
	all	276	0.047	11.0	2.63	726	0	0
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b>								
21A-32w: Bg floor, light dry soil, 10' depth, hrd wd fir fnsh		123	0.020	0	1.12	137	0	0





**Component Constructions**  
**Bed 4**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	e	92	0.341	0	19.1	1757	7.59	698
	s	59	0.341	0	19.1	1122	7.59	446
	all	151	0.341	0	19.1	2879	7.59	1144
<b>Partitions</b> (none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	s	41	0.570	0	31.9	1317	36.5	1506
<b>Doors</b> (none)								
<b>Ceilings</b> (none)								
<b>Floors</b> (none)								



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**Component Constructions**  
**Bed 3**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh								
	s	55	0.341	0	19.1	1046	7.59	415
	w	92	0.341	0	19.1	1757	7.59	698
	all	147	0.341	0	19.1	2802	7.59	1113
<b>Partitions</b>								
(none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht								
	s	41	0.570	0	31.9	1317	36.5	1506
<b>Doors</b>								
(none)								
<b>Ceilings</b>								
(none)								
<b>Floors</b>								
(none)								



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**Component Constructions**  
**Stair 2**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	n	196	0.341	0	19.1	3743	7.59	1487
	e	40	0.341	0	19.1	764	7.59	303
	w	40	0.341	0	19.1	764	7.59	303
	all	276	0.341	0	19.1	5270	7.59	2094

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





**Component Constructions**  
**Bath 2**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

Or Area U-value Insul R Htg HTM Loss Clg HTM Gain  
 ft² Btuh/ft²·°F ft²·°F/Btuh Btuh/ft² Btuh Btuh/ft² Btuh

**Walls**  
(none)

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





### Project Information

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

### Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

### Construction descriptions

<b>Or</b>	<b>Area</b>	<b>U-value</b>	<b>Insul R</b>	<b>Htg HTM</b>	<b>Loss</b>	<b>Clg HTM</b>	<b>Gain</b>
	ft <sup>2</sup>	Btuh/ft <sup>2</sup> °F	ft <sup>2</sup> °F/Btuh	Btuh/ft <sup>2</sup>	Btuh	Btuh/ft <sup>2</sup>	Btuh

**Walls**  
(none)

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





**Component Constructions**  
**Hall 2**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 14F-0: Blk wall, 2"x6" wood int frm, 10" thk, r-19 cav ins, 1/2" gypsum board int fnsh	e	96	0.341	0	19.1	1833	7.59	728
	w	96	0.341	0	19.1	1833	7.59	728
	all	192	0.341	0	19.1	3666	7.59	1457

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)







**Component Constructions**  
**Stair 3**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	240	0.068	19.0	3.81	914	1.51	363
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		18	0.029	38.0	1.62	29	0.63	11
<b>Floors</b> 19C-19cscp: 19C-19cscp		36	0	0	0	0	0	0





**Component Constructions**  
**Master Bath**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	118	0.068	19.0	3.81	449	1.51	179
	e	140	0.068	19.0	3.81	533	1.51	212
	all	258	0.068	19.0	3.81	982	1.51	390

**Partitions**  
(none)

<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	n	22	0.570	0	31.9	702	23.8	523
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**Doors**  
(none)

<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		147	0.029	38.0	1.62	239	0.63	93
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<b>Floors</b> 19C-19cscp: 19C-19cscp		190	0	0	0	0	0	0
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**Component Constructions**  
**Master Bed**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	e	104	0.068	19.0	3.81	394	1.51	157
	s	84	0.068	19.0	3.81	319	1.51	127
	all	187	0.068	19.0	3.81	713	1.51	283

**Partitions**  
(none)

<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	e	72	0.570	0	31.9	2282	65.7	4700
	s	96	0.570	0	31.9	3072	36.5	3513
	all	168	0.570	0	31.9	5355	49.0	8213

**Doors**  
(none)

<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		290	0.029	38.0	1.62	471	0.63	184
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<b>Floors</b> 19C-19cscp: 19C-19cscp		243	0	0	0	0	0	0
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**Component Constructions**  
**Dogs**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

Or Area U-value Insul R Htg HTM Loss Clg HTM Gain  
 ft² Btuh/ft²·°F ft²·°F/Btuh Btuh/ft² Btuh/ft² Btuh

**Walls**  
(none)

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





**Component Constructions**  
**WCloset**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

Or Area U-value Insul R Htg HTM Loss Clg HTM Gain  
 ft² Btuh/ft²·°F ft²·°F/Btuh Btuh/ft² Btuh Btuh/ft² Btuh

**Walls**  
(none)

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
(none)

**Floors**  
(none)





**Component Constructions**  
**Stacked WD**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> (none)								
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		14	0.029	38.0	1.62	22	0.63	9
<b>Floors</b> (none)								





**Component Constructions**  
**Foyer**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> (none)								
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		18	0.029	38.0	1.62	29	0.63	11
<b>Floors</b> (none)								





3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

## Project Information

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

### Construction descriptions

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	s	78	0.068	19.0	3.81	295	1.51	117
<b>Partitions</b> (none)								
<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	s	83	0.570	0	31.9	2633	36.5	3011
<b>Doors</b> (none)								
<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		252	0.029	38.0	1.62	409	0.63	160
<b>Floors</b> 19C-19cscp: 19C-19cscp		24	0	0	0	0	0	0







**Component Constructions**  
**Living**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	s	280	0.068	19.0	3.81	1066	1.51	424
	w	81	0.068	19.0	3.81	307	1.51	122
	all	361	0.068	19.0	3.81	1374	1.51	546

**Partitions**  
(none)

<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; w 6.67 ft head ht	w	94	0.570	0	31.9	3008	65.7	6195
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**Doors**  
(none)

<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		490	0.029	38.0	1.62	796	0.63	310
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<b>Floors</b> 19C-19cscp: 19C-19cscp		490	0	0	0	0	0	0
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**Component Constructions**  
**Receiving**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> ·°F	Insul R ft <sup>2</sup> ·°F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	120	0.068	19.0	3.81	457	1.51	182
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		168	0.029	38.0	1.62	273	0.63	106
<b>Floors</b> 19C-19cscp: 19C-19cscp		168	0	0	0	0	0	0





**Component Constructions**  
**Kitchen**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	218	0.068	19.0	3.81	830	1.51	330
	w	20	0.068	19.0	3.81	76	1.51	30
	all	238	0.068	19.0	3.81	906	1.51	360

**Partitions**  
(none)

<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	n	62	0.570	0	31.9	1979	23.8	1474
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**Doors**  
(none)

<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		392	0.029	38.0	1.62	637	0.63	248
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<b>Floors</b> 19C-19cscp: 19C-19cscp		392	0	0	0	0	0	0
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**Component Constructions**  
**Pantry**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	100	0.068	19.0	3.81	381	1.51	151
	s	100	0.068	19.0	3.81	381	1.51	151
	w	120	0.068	19.0	3.81	457	1.51	182
	all	320	0.068	19.0	3.81	1219	1.51	484
<b>Partitions</b> (none)								
<b>Windows</b> (none)								
<b>Doors</b> (none)								
<b>Ceilings</b>								
18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		120	0.029	38.0	1.62	195	0.63	76
<b>Floors</b>								
19C-19cscp: 19C-19cscp		120	0	0	0	0	0	0





**Component Constructions**  
**Stair 4**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw								
	e	40	0	0	0	0	0	0
	w	40	0	0	0	0	0	0
	all	80	0	0	0	0	0	0
<b>Partitions</b>								
(none)								
<b>Windows</b>								
8Acw-2w: Sky glazing, small, wood curb, no shaft lgt shaft, wd sash								
		49	1.160	0	65.0	3176	187	9158
<b>Doors</b>								
(none)								
<b>Ceilings</b>								
16B-30ad: 16B-30ad								
		74	0	0	0	0	0	0
<b>Floors</b>								
(none)								





**Component Constructions**  
**Mud**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw								
	n	68	0	0	0	0	0	0
	w	120	0	0	0	0	0	0
	all	188	0	0	0	0	0	0
<b>Partitions</b>								
(none)								
<b>Windows</b>								
1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; w 6.67 ft head ht								
	w	28	0.570	0	31.9	894	65.7	1841
<b>Doors</b>								
(none)								
<b>Ceilings</b>								
16B-30ad: 16B-30ad								
		157	0	0	0	0	0	0
<b>Floors</b>								
19C-19cscp: 19C-19cscp								
		123	0	0	0	0	0	0





**Component Constructions**  
**Garage**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw								
	n	51	0	0	0	0	0	0
	e	208	0	0	0	0	0	0
	w	39	0	0	0	0	0	0
	all	298	0	0	0	0	0	0
<b>Partitions</b>								
(none)								
<b>Windows</b>								
(none)								
<b>Doors</b>								
11D0: 11D0								
	n	77	0	0	0	0	0	0
	w	21	0	0	0	0	0	0
	all	98	0	0	0	0	0	0
<b>Ceilings</b>								
16B-30ad: 16B-30ad								
		416	0	0	0	0	0	0
<b>Floors</b>								
19C-19cscp: 19C-19cscp								
		352	0	0	0	0	0	0





3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

## Project Information

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

## Construction descriptions

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b>								
12C-0sw: 12C-0sw								
	e	60	0	0	0	0	0	0
	s	196	0	0	0	0	0	0
	w	60	0	0	0	0	0	0
	all	316	0	0	0	0	0	0

**Partitions**  
(none)

**Windows**  
(none)

**Doors**  
(none)

**Ceilings**  
16B-30ad: 16B-30ad

184      0      0      0      0      0      0

**Floors**  
(none)







**Component Constructions**  
**Dining**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: 7800 ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		31.8	-15.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Method	Simplified	
Daily range (°F)	-	26 ( M )	Construction quality	Average	
Wet bulb (°F)	-	63	Fireplaces	1 (Average)	
Wind speed (mph)	15.0	7.5			

**Construction descriptions**

	Or	Area ft <sup>2</sup>	U-value Btuh/ft <sup>2</sup> °F	Insul R ft <sup>2</sup> °F/Btuh	Htg HTM Btuh/ft <sup>2</sup>	Loss Btuh	Clg HTM Btuh/ft <sup>2</sup>	Gain Btuh
<b>Walls</b> 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	s	72	0.068	19.0	3.81	274	1.51	109
<b>Partitions</b> (none)								
<b>Windows</b> 1D-c2ow: 2 glazing, clr outr, air gas, wd frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	s	88	0.570	0	31.9	2809	36.5	3212
<b>Doors</b> (none)								
<b>Ceilings</b> 18B-38w: Rf/clg ceiling, wood shingles roof mat, frm cons, 1/2" gypsum board int fnsh, 12" thkns, r-38 ceil ins		264	0.029	38.0	1.62	429	0.63	167
<b>Floors</b> 19C-19cscp: 19C-19cscp		216	0	0	0	0	0	0





**Project Summary**  
**Entire House**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 66253 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 66253 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 53374 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 53267 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -996 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	4853	4853
Volume (ft <sup>3</sup> )	39096	39096
Air changes/hour	0.40	0.19
Equiv. AVF (cfm)	261	124

**Equipment Total Load (Sen+Lat)** 53267 Btuh  
 Req. total capacity at 0.70 SHR 6.3 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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**(Rest of House)**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 39730 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 39730 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 39482 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 39403 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -704 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Equipment latent load 0 Btuh

	<b>Heating</b>	<b>Cooling</b>
Area (ft <sup>2</sup> )	3041	3041
Volume (ft <sup>3</sup> )	29478	29478
Air changes/hour	0.38	0.18
Equiv. AVF (cfm)	185	88

**Equipment Total Load (Sen+Lat)** 39403 Btuh  
 Req. total capacity at 0.70 SHR 4.7 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 1670 cfm  
 Air flow factor 0.042 cfm/Btuh  
 Static pressure 1.60 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 1670 cfm  
 Air flow factor 0.040 cfm/Btuh  
 Static pressure 1.60 in H2O  
 Load sensible heat ratio 1.00

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Garage Heater**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 1123 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 1123 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 217 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 216 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -93 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Equipment latent load 0 Btuh

	<b>Heating</b>	<b>Cooling</b>
Area (ft <sup>2</sup> )	416	416
Volume (ft <sup>3</sup> )	3328	3328
Air changes/hour	0.44	0.21
Equiv. AVF (cfm)	24	12

**Equipment Total Load (Sen+Lat)** 216 Btuh  
 Req. total capacity at 0.70 SHR 0.0 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 15 cfm  
 Air flow factor 0.014 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 15 cfm  
 Air flow factor 0.071 cfm/Btuh  
 Static pressure 0 in H2O  
 Load sensible heat ratio 1.00

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Lower Beds**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 25400 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 25400 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 14724 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 14695 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -199 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm)  
 (none) 0 Btuh  
 Equipment latent load 0 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	1397	1397
Volume (ft <sup>3</sup> )	6290	6290
Air changes/hour	0.50	0.24
Equiv. AVF (cfm)	52	25

**Equipment Total Load (Sen+Lat)** 14695 Btuh  
 Req. total capacity at 0.70 SHR 1.7 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 1052 cfm  
 Air flow factor 0.041 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 1052 cfm  
 Air flow factor 0.071 cfm/Btuh  
 Static pressure 0 in H2O  
 Load sensible heat ratio 1.00

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Bed 1 Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 1858 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 1858 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 3152 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 3146 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure 0 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
**Equipment Total Load (Sen+Lat)** 3146 Btuh  
 Req. total capacity at 0.70 SHR 0.4 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	246	246
Volume (ft <sup>3</sup> )	704	704
Air changes/hour	0	0
Equiv. AVF (cfm)	0	0

**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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Bed 2 Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 3886 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 3886 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 4504 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 4495 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure 0 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
**Equipment Total Load (Sen+Lat)** 4495 Btuh  
 Req. total capacity at 0.70 SHR 0.5 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	452	452
Volume (ft <sup>3</sup> )	0	0
Air changes/hour	0	0
Equiv. AVF (cfm)	0	0

**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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Bed 3 Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 8863 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 8863 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 5931 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 5919 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -89 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
**Equipment Total Load (Sen+Lat)** 5919 Btuh  
 Req. total capacity at 0.70 SHR 0.7 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	346	346
Volume (ft <sup>3</sup> )	2768	2768
Air changes/hour	0.51	0.24
Equiv. AVF (cfm)	23	11

**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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.







**Project Summary**  
**Bed 4 Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 10793 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 10793 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 6646 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 6633 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -110 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
**Equipment Total Load (Sen+Lat)** 6633 Btuh  
 Req. total capacity at 0.70 SHR 0.8 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	352	352
Volume (ft <sup>3</sup> )	2818	2818
Air changes/hour	0.61	0.29
Equiv. AVF (cfm)	29	14

**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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Main Zone**  
 Harris Dudley Co.

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 14231 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 14231 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 14260 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 14232 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -280 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
**Equipment Total Load (Sen+Lat)** 14232 Btuh  
 Req. total capacity at 0.70 SHR 1.7 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	1170	1170
Volume (ft <sup>3</sup> )	11700	11700
Air changes/hour	0.38	0.18
Equiv. AVF (cfm)	73	35

**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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Project Summary**  
**Master Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

Notes:

**Design Information**

Weather: Salt Lake City Int'l AP, UT, US

**Winter Design Conditions**

Outside db 14 °F  
 Inside db 70 °F  
 Design TD 56 °F

**Summer Design Conditions**

Outside db 95 °F  
 Inside db 72 °F  
 Design TD 23 °F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference -16 gr/lb

**Heating Summary**

Structure 25499 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 25499 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 39400 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 1.00  
 Equipment sensible load 39321 Btuh

**Infiltration**

Method Simplified  
 Construction quality Average  
 Fireplaces 1 (Average)

**Latent Cooling Equipment Load Sizing**

Structure -424 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
**Equipment Total Load (Sen+Lat)** 39321 Btuh  
 Req. total capacity at 0.70 SHR 4.7 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	1871	1871
Volume (ft <sup>3</sup> )	17778	17778
Air changes/hour	0.38	0.18
Equiv. AVF (cfm)	111	53

**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

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**AED Assessment**  
**Entire House**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

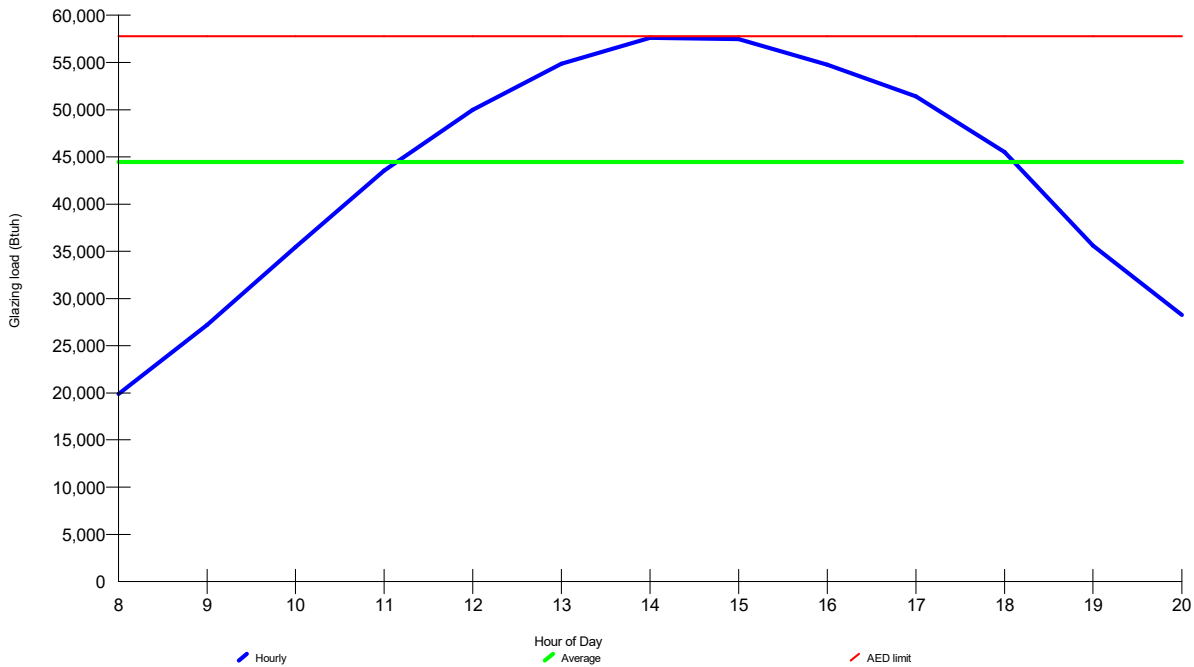
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 29.7%.**

**House has adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 0 Btuh**

*Bold/italic values have been manually overridden*

**Project Information**

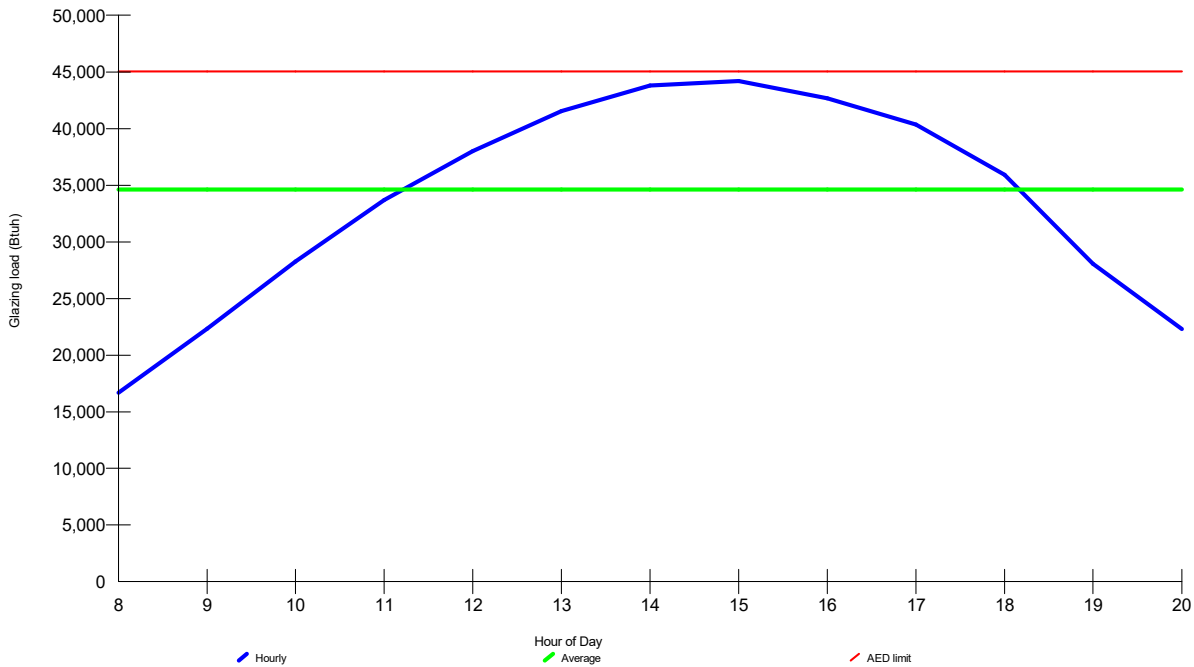
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 27.7%.**

**Zone has adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 0 Btuh**

*Bold/italic values have been manually overridden*



**AED Assessment**  
**Garage Heater**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

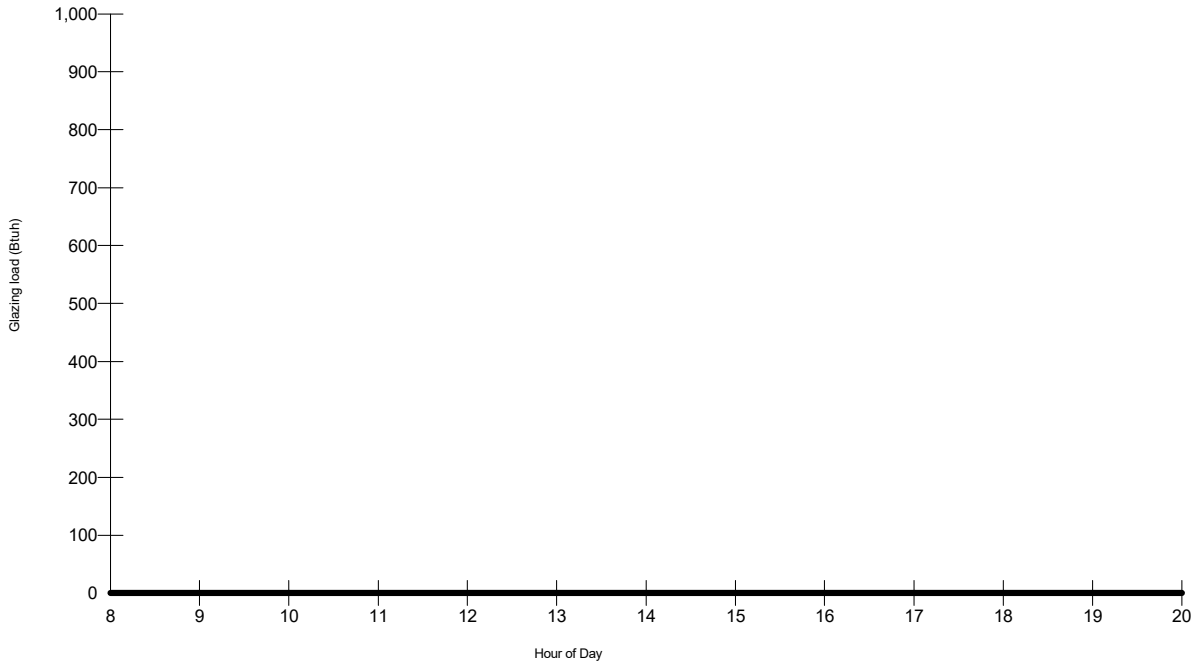
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		
Daily range (°F)	-	26 ( M )	31.8		
Wet bulb (°F)	-	63	-15.8		
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 0.0%.**

**Zone has adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 0 Btuh**

*Bold/italic values have been manually overridden*



## Project Information

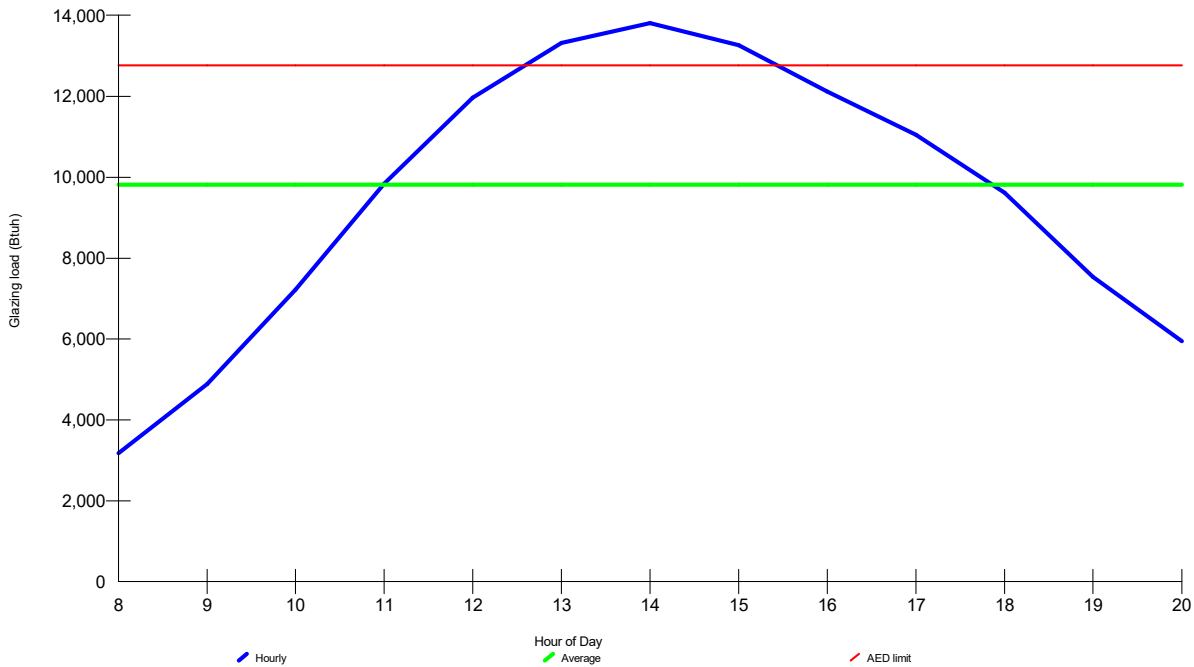
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

## Test for Adequate Exposure Diversity

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 40.7%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 1049 Btuh (PGF - 1.3\*AFG)**

*Bold/italic values have been manually overridden*

### Project Information

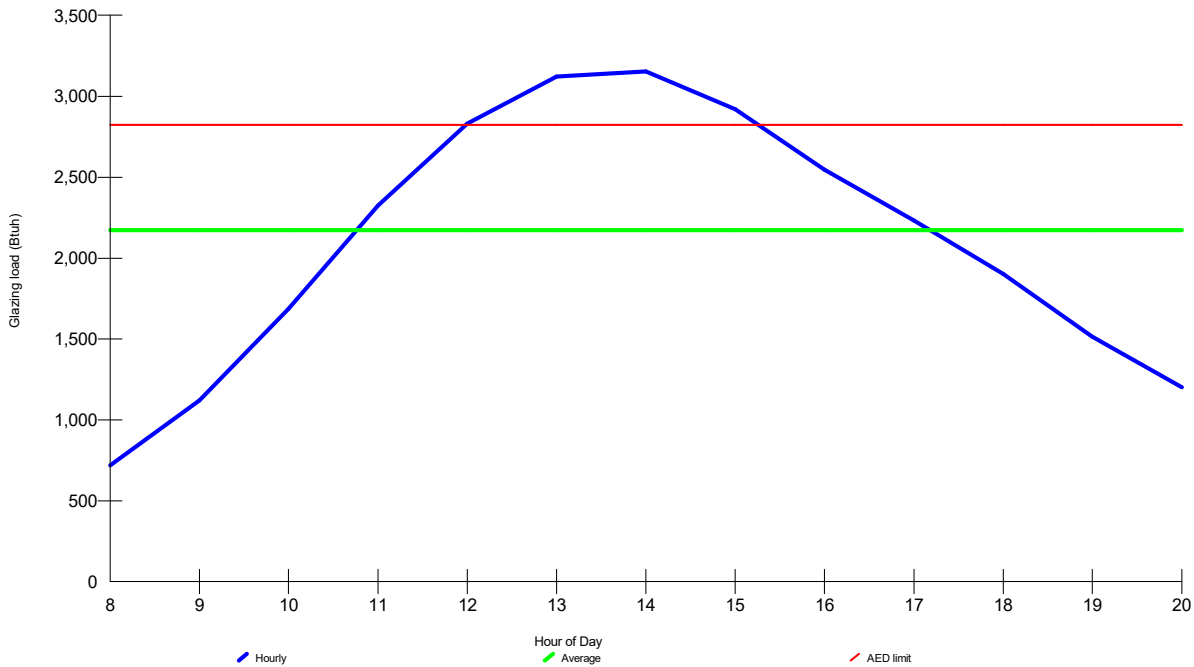
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

### Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

### Test for Adequate Exposure Diversity

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 45.1%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 1647 Btuh (PGF - ALP)**

*Bold/italic values have been manually overridden*



**Project Information**

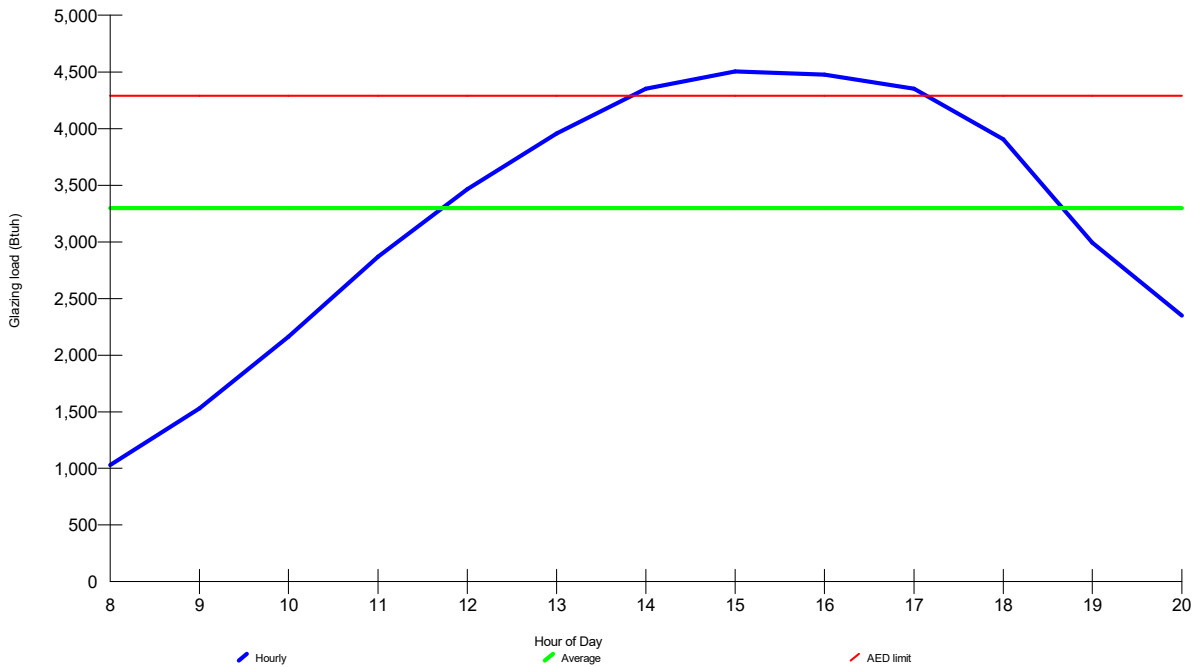
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 36.5%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 1618 Btuh (PGF - ALP)**

*Bold/italic values have been manually overridden*

**Project Information**

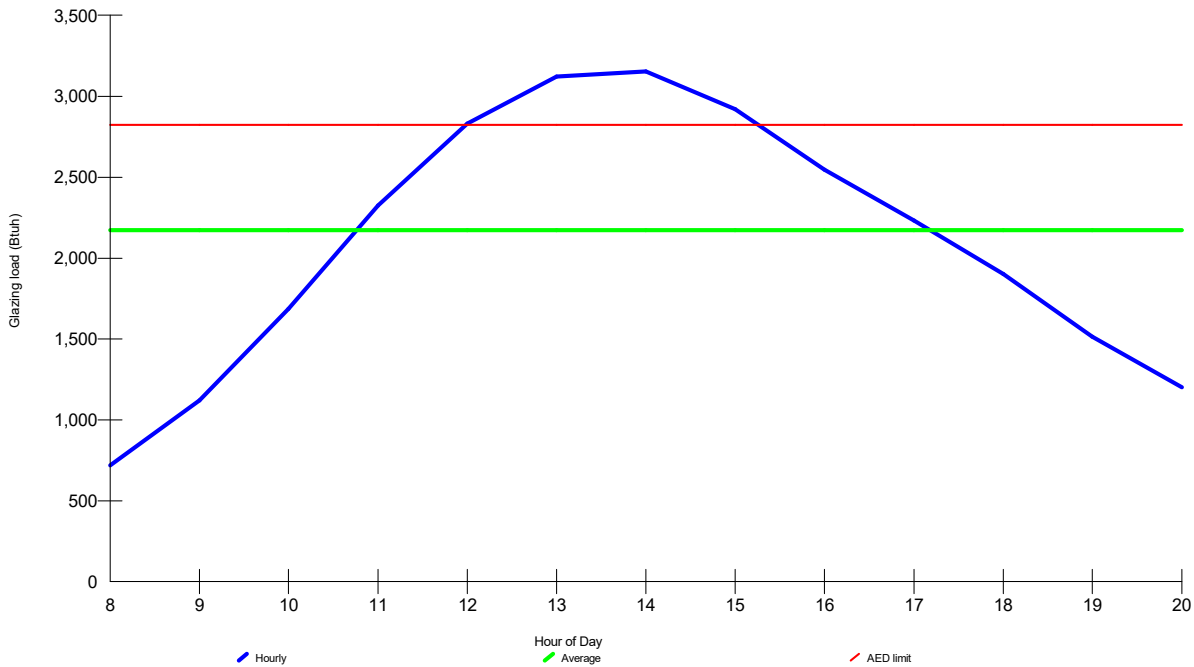
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 45.1%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 1647 Btuh (PGF - ALP)**

*Bold/italic values have been manually overridden*

**Project Information**

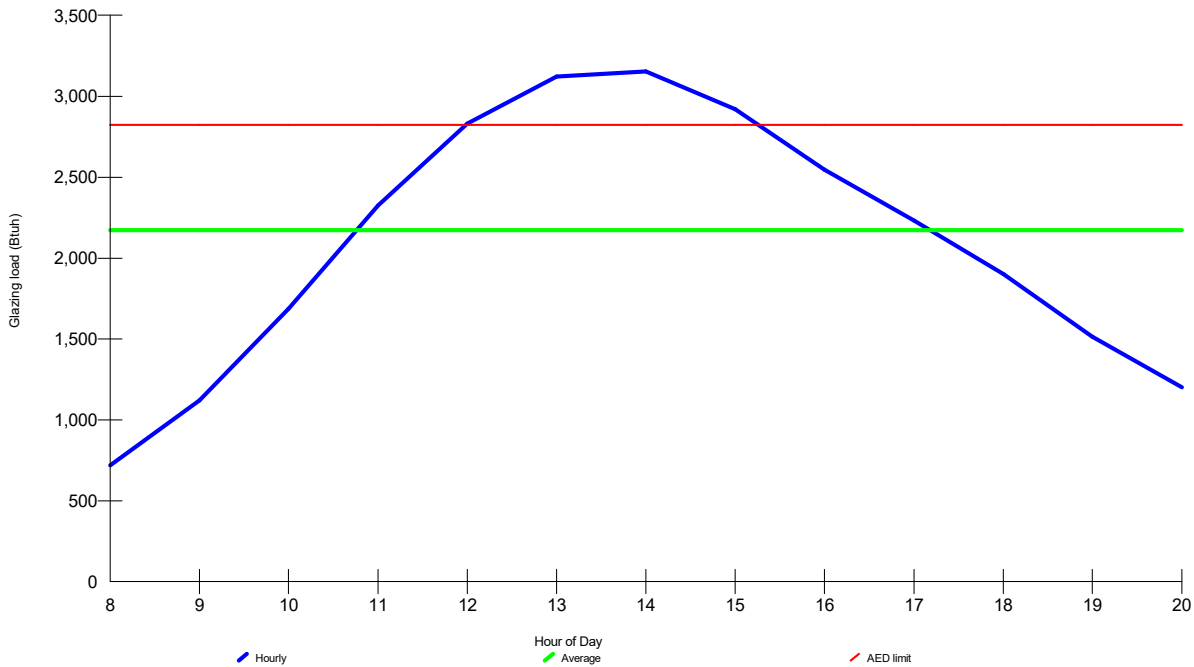
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 45.1%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 1647 Btuh (PGF - ALP)**

*Bold/italic values have been manually overridden*



**AED Assessment**  
**Main Zone**  
**Harris Dudley Co.**

Job:  
 Date: Apr 12, 2018  
 By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

**Project Information**

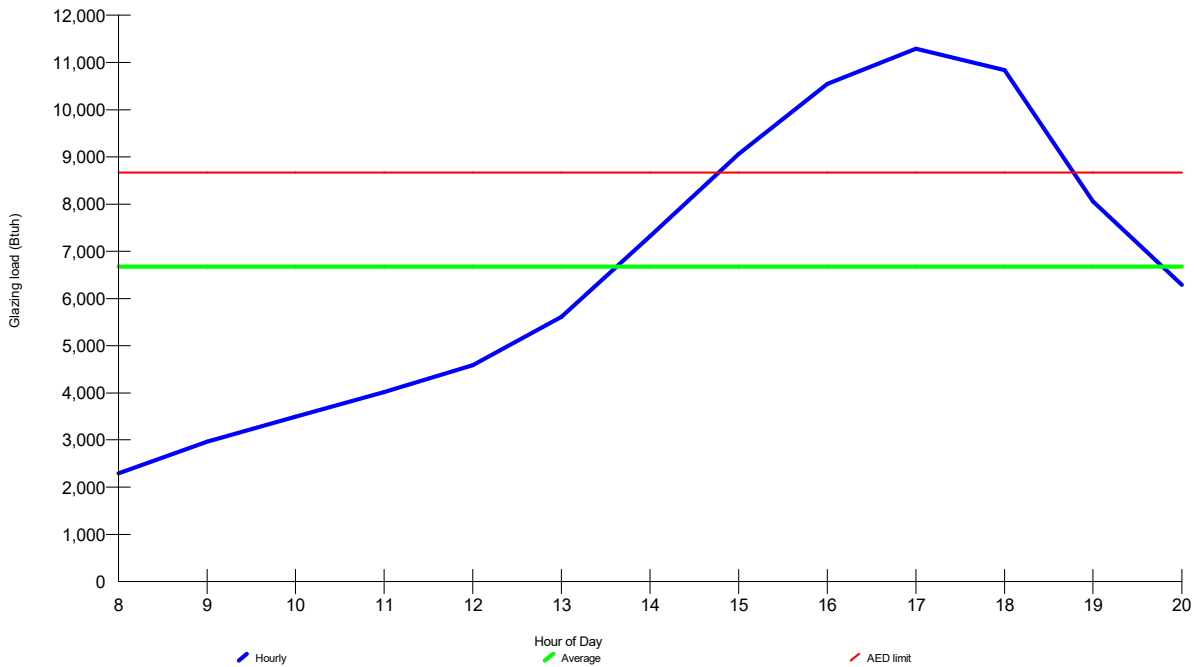
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

**Test for Adequate Exposure Diversity**

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 69.2%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 3624 Btuh (PGF - ALP)**

*Bold/italic values have been manually overridden*

## Project Information

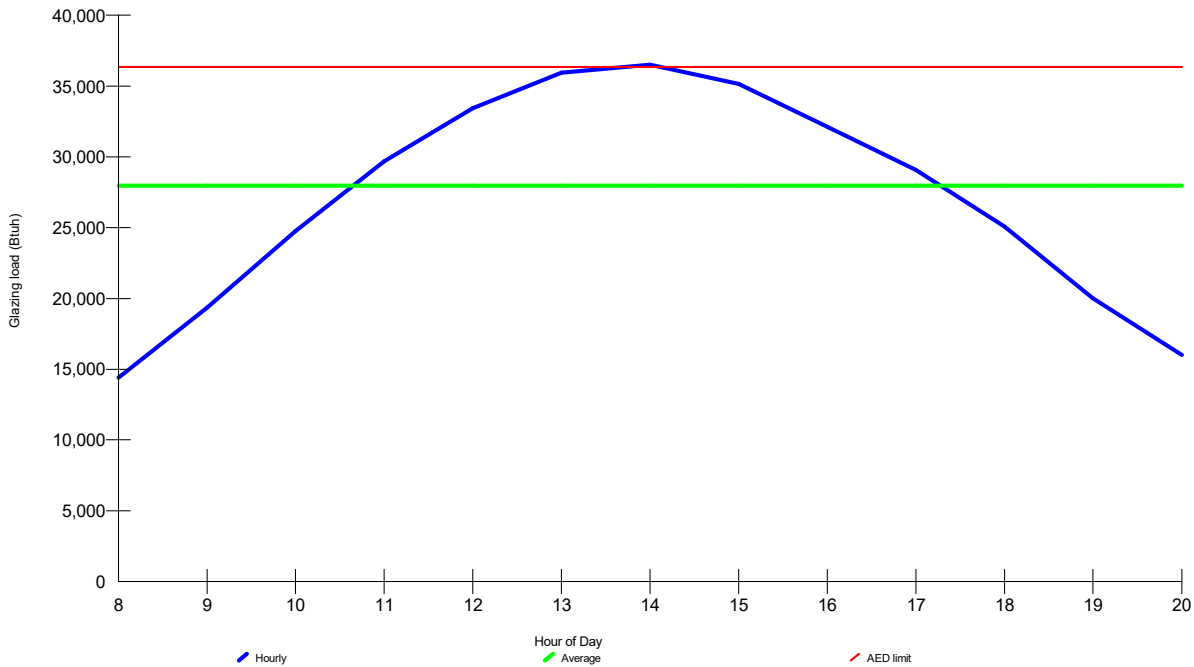
For: Lot 14  
 Lot 14 Mountain House, Powder Mountain, Utah

## Design Conditions

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Salt Lake City Int'l AP, UT, US		Indoor temperature (°F)		70	72
Elevation: <b>7800</b> ft		Design TD (°F)		56	23
Latitude: 41°N		Relative humidity (%)		30	50
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Dry bulb (°F)	14	95	Moisture difference (gr/lb)		31.8
Daily range (°F)	-	26 ( M )			-15.8
Wet bulb (°F)	-	63			
Wind speed (mph)	15.0	7.5			

## Test for Adequate Exposure Diversity

Hourly Glazing Load



**Maximum hourly glazing load exceeds average by 30.6%.**

**Zone does not have adequate exposure diversity (AED), based on AED limit of 30%.**

**AED excursion: 10554 Btuh (PFG - ALP)**

*Bold/italic values have been manually overridden*



**Right-J® Worksheet**  
**Entire House**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name		Entire House				Lower Beds						
2		Exposed wall		576.9 ft				211.9 ft						
3		Room height		9.1 ft				8.0 ft						
4		Room dimensions		d				d						
5		Room area		4853.0 ft²				1396.5 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	196	119	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	77	77	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	880	796	3031	1204	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	84	0	2681	1997	0	0	0	0
11	W	14F-0	0.341	n	19.10	7.59	196	196	3743	1487	196	196	3743	1487
	W	15B11-0wc-10	0.099	n	2.63	0.00	196	196	516	0	196	196	516	0
	W	12C-0sw	0.000	e	0.00	0.00	308	308	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.81	1.51	315	244	927	368	0	0	0	0
	└─G	1D-c2ow	0.570	e	31.92	65.73	72	0	2282	4700	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	228	228	4354	1730	228	228	4354	1730
	W	15B11-0wc-10	0.099	e	2.63	0.00	228	228	600	0	228	228	600	0
	W	12C-0sw	0.000	s	0.00	0.00	196	196	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	880	613	2335	928	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	267	0	8515	9737	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	196	114	2167	861	196	114	2167	861
	└─G	1D-c2ow	0.570	s	31.92	36.50	83	0	2633	3011	83	0	2633	3011
	W	15B11-0wc-10	0.099	s	0.52	0.00	196	114	58	0	196	114	58	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	83	0	2633	3011	83	0	2633	3011
	W	12C-0sw	0.000	w	0.00	0.00	308	259	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	28	0	894	1841	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	21	21	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.81	1.51	315	221	841	334	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	94	0	3008	6195	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	228	228	4354	1730	228	228	4354	1730
	W	15B11-0wc-10	0.099	w	2.34	0.00	228	207	484	0	228	207	484	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	21	0	670	1380	21	0	670	1380
	G	16B-30ad	0.000	-	0.00	0.00	880	831	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	49	0	3176	9158	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	2173	2173	3529	1377	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	1879	1879	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	475	475	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	698	698	782	0	698	698	782	0
6	c) AED excursion									0				1049
	Envelope loss/gain								54214	51050			22995	14260
12	a) Infiltration								12038	2324			2404	464
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								66253	53374			25400	14724
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								66253	53374			25400	14724
15	Duct loads								0%	0%			0	0
	Total room load								66253	53374			25400	14724
	Air required (cfm)								2737	3567			1052	1052

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Right-J® Worksheet**  
**Entire House**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name		(Rest of House)				Garage Heater						
2		Exposed wall		315.5 ft				49.5 ft						
3		Room height		9.7 ft				8.0 ft						
4		Room dimensions		d				d						
5		Room area		3040.5 ft²				416.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	68	68	0	0	128	51	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	77	77	0	0
	W	12E-0sw	0.068	n	3.81	1.51	880	796	3031	1204	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	84	0	2681	1997	0	0	0	0
11	W	14F-0	0.341	n	19.10	7.59	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	2.63	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	100	100	0	0	208	208	0	0
	W	12E-0sw	0.068	e	3.81	1.51	315	244	927	368	0	0	0	0
	└─G	1D-c2ow	0.570	e	31.92	65.73	72	0	2282	4700	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	2.63	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	196	196	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	880	613	2335	928	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	267	0	8515	9737	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.52	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	248	220	0	0	60	39	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	28	0	894	1841	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	21	21	0	0
	W	12E-0sw	0.068	w	3.81	1.51	315	221	841	334	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	94	0	3008	6195	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	2.34	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	464	415	0	0	416	416	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	49	0	3176	9158	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	2173	2173	3529	1377	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	1879	1879	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	123	123	0	0	352	352	0	0
	F	21A-32w	0.020	-	1.12	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									0				0
	Envelope loss/gain								31219	37839			0	0
12	a) Infiltration								8511	1643			1123	217
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								39730	39482			1123	217
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								39730	39482			1123	217
15	Duct loads							0%	0%	0	0	0%	0%	0
	Total room load								39730	39482			1123	217
	Air required (cfm)								1670	1670			15	15

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet (Rest of House) Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name		(Rest of House)							Master Zone					
2 Exposed wall		315.5 ft							196.0 ft					
3 Room height		9.7 ft							9.5 ft					
4 Room dimensions		d							p					
5 Room area		3040.5 ft²							1870.5 ft²					
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	68	68	0	0	68	68	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	880	796	3031	1204	380	358	1363	542
	└─G	1D-c2ow	0.570	n	31.92	23.77	84	0	2681	1997	22	0	702	523
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	100	100	0	0	100	100	0	0
	└─W	12E-0sw	0.068	e	3.81	1.51	315	244	927	368	315	244	927	368
	└─G	1D-c2ow	0.570	e	31.92	65.73	72	0	2282	4700	72	0	2282	4700
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	196	196	0	0	196	196	0	0
	└─W	12E-0sw	0.068	s	3.81	1.51	880	613	2335	928	500	233	888	353
	└─G	1D-c2ow	0.570	s	31.92	36.50	267	0	8515	9737	267	0	8515	9737
	└─W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	12C-0sw	0.000	w	0.00	0.00	248	220	0	0	248	220	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	28	0	894	1841	28	0	894	1841
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	12E-0sw	0.068	w	3.81	1.51	315	221	841	334	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	94	0	3008	6195	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	464	415	0	0	464	415	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	49	0	3176	9158	49	0	3176	9158
	C	18B-38w	0.029	-	1.62	0.63	2173	2173	3529	1377	1003	1003	1628	635
	F	19C-19cscop	0.000	-	0.00	0.00	1879	1879	0	0	709	709	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	123	123	0	0	123	123	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									0				10554
	Envelope loss/gain								31219	37839			20376	38411
12	a) Infiltration								8511	1643			5123	989
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								39730	39482			25499	39400
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								39730	39482			25499	39400
15	Duct loads					0%	0%		0	0	0%	0%	0	0
	Total room load								39730	39482			25499	39400
	Air required (cfm)								1670	1670			1072	1557

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.







# Right-J® Worksheet (Rest of House) Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Main Zone										
2 Exposed wall				10.0 ft		119.5 ft								
3 Room height														
4 Room dimensions														
5 Room area				1170.0 ft²										
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0				
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	n	3.81	1.51	500	438	1668	663				
	└─G	1D-c2ow	0.570	n	31.92	23.77	62	0	1979	1474				
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	e	3.81	1.51	0	0	0	0				
	└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0				
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	s	3.81	1.51	380	380	1447	575				
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0				
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0				
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	w	3.81	1.51	315	221	841	334				
	└─G	1D-c2ow	0.570	w	31.92	65.73	94	0	3008	6195				
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0				
	└─G	8Aow-2w	1.160	-	64.96	187.33	0	0	0	0				
	C	18B-38w	0.029	-	1.62	0.63	1170	1170	1900	741				
	F	19C-19cscp	0.000	-	0.00	0.00	1170	1170	0	0				
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0				
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0				
6	c) AED excursion									3624				
	Envelope loss/gain								10843	13606				
12	a) Infiltration								3388	654				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							0				
	Subtotal (lines 6 to 13)								14231	14260				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								0	0				
14	Subtotal								14231	14260				
15	Duct loads						0%	0%	0	0				
	Total room load								14231	14260				
	Air required (cfm)								598	564				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Uponor System Design Software 18.0.16 RSU07680

2018-Aug-16 10:27:19

C:\Users\patri\Desktop\Lot 14 8-16-18.rup Calc = MJ8 Front Door faces: N

Page 4



# Right-J® Worksheet Garage Heater Harris Dudley Co.

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name		Garage Heater				Garage						
2		Exposed wall		49.5 ft				49.5 ft						
3		Room height		8.0 ft				8.0 ft						
4		Room dimensions		d				16.0 x 26.0 ft						
5		Room area		416.0 ft²				416.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	128	51	0	0	128	51	0	0
	└─D	11D0	0.000	n	0.00	0.00	77	77	0	0	77	77	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	208	208	0	0	208	208	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	60	39	0	0	60	39	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	21	21	0	0	21	21	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	416	416	0	0	416	416	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	352	352	0	0	352	352	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion								0				0	
	Envelope loss/gain								0	0			0	0
12	a) Infiltration								1123	217			1123	217
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0			0	0			0	0
			Appliances/other						0	0			0	0
	Subtotal (lines 6 to 13)								1123	217			1123	217
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1123	217			1123	217
15	Duct loads					0%	0%		0	0		0%	0	0
	Total room load								1123	217			1123	217
	Air required (cfm)								15	15			15	15

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Lower Beds Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Lower Beds 211.9 ft				Bed 1 Zone 23.5 ft						
2 Exposed wall				8.0 ft				8.0 ft						
3 Room height				d				p						
4 Room dimensions														
5 Room area				1396.5 ft²				246.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	19.10	7.59	196	196	3743	1487	0	0	0	0
	W	15B11-0wc-10	0.099	n	2.63	0.00	196	196	516	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	228	228	4354	1730	0	0	0	0
	W	15B11-0wc-10	0.099	e	2.63	0.00	228	228	600	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	196	114	2167	861	0	0	0	0
	└G	1D-c2ow	0.570	s	31.92	36.50	83	0	2633	3011	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.52	0.00	196	114	58	0	96	55	24	0
	└G	1D-c2ow	0.570	s	31.92	36.50	83	0	2633	3011	41	0	1317	1506
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	228	228	4354	1730	0	0	0	0
	W	15B11-0wc-10	0.099	w	2.34	0.00	228	207	484	0	92	92	242	0
	└G	1D-c2ow	0.570	w	31.92	65.73	21	0	670	1380	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	698	698	782	0	246	246	276	0
6	c) AED excursion									1049				1647
	Envelope loss/gain								22995	14260			1858	3152
12	a) Infiltration								2404	464			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								25400	14724			1858	3152
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								25400	14724			1858	3152
15	Duct loads						0%	0%	0	0	0%	0%	0	0
	Total room load								25400	14724			1858	3152
	Air required (cfm)								1052	1052			77	223

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Lower Beds Harris Dudley Co.

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

				Bed 2 Zone 82.5 ft				Bed 3 Zone 47.4 ft						
				8.0 ft		p		8.0 ft		p				
				452.3 ft²				346.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
1		Room name												
2		Exposed wall												
3		Room height												
4		Room dimensions												
5		Room area												
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	19.10	7.59	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	2.63	0.00	196	196	516	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	0	0	0	0	96	96	1833	728
	W	15B11-0wc-10	0.099	e	2.63	0.00	228	228	600	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	0	0	0	0	96	55	1046	415
	└G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	41	0	1317	1506
	W	15B11-0wc-10	0.099	s	0.52	0.00	100	59	35	0	0	0	0	0
	└G	1D-c2ow	0.570	s	31.92	36.50	41	0	1317	1506	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	0	0	0	0	188	188	3590	1426
	W	15B11-0wc-10	0.099	w	2.34	0.00	136	115	242	0	0	0	0	0
	└G	1D-c2ow	0.570	w	31.92	65.73	21	0	670	1380	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	452	452	507	0	0	0	0	0
6	c) AED excursion									1618			1647	
	Envelope loss/gain								3886	4504			7785	5723
12	a) Infiltration								0	0			1077	208
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0			0	0			0	0
			Appliances/other						0				0	0
	Subtotal (lines 6 to 13)								3886	4504			8863	5931
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								3886	4504			8863	5931
15	Duct loads								0%	0%			0	0
	Total room load								3886	4504			8863	5931
	Air required (cfm)								161	319			367	419

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Lower Beds Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

						Bed 4 Zone 58.5 ft								
1	Room name					8.0 ft				p				
2	Exposed wall													
3	Room height													
4	Room dimensions													
5	Room area					352.3 ft²								
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0				
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0				
11	W	14F-0	0.341	n	19.10	7.59	196	196	3743	1487				
	W	15B11-0wc-10	0.099	n	2.63	0.00	0	0	0	0				
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0				
	W	14F-0	0.341	e	19.10	7.59	132	132	2521	1002				
	W	15B11-0wc-10	0.099	e	2.63	0.00	0	0	0	0				
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	14F-0	0.341	s	19.10	7.59	100	59	1122	446				
	└─G	1D-c2ow	0.570	s	31.92	36.50	41	0	1317	1506				
	W	15B11-0wc-10	0.099	s	0.52	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0				
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	W	14F-0	0.341	w	19.10	7.59	40	40	764	303				
	W	15B11-0wc-10	0.099	w	2.34	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0				
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0				
	└─G	8Acw-2w	1.160	-	0.00	0.00	0	0	0	0				
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0				
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0				
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0				
	F	21A-32w	0.020	-	1.12	0.00	0	0	0	0				
6	c) AED excursion									1647				
	Envelope loss/gain								9466	6390				
12	a) Infiltration								1327	256				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							0				
	Subtotal (lines 6 to 13)								10793	6646				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								0	0				
14	Subtotal								10793	6646				
15	Duct loads						0%	0%	0	0				
	Total room load								10793	6646				
	Air required (cfm)								447	470				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Uponor System Design Software 18.0.16 RSU07680

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# Right-J® Worksheet

## Bed 1 Zone

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name				Bed 1 Zone				Bed 1				
2		Exposed wall				8.0 ft				23.5 ft				
3		Room height				p				8.0 ft				
4		Room dimensions								1.0 x 158.0 ft				
5		Room area				246.0 ft²				158.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.44	0.00	96	55	24	0	96	55	24	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	41	0	1317	1506	41	0	1317	1506
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	2.63	0.00	92	92	242	0	92	92	242	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	246	246	276	0	158	158	177	0
6	c) AED excursion									1647				1647
	Envelope loss/gain								1858	3152			1760	3152
12	a) Infiltration								0	0			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0			0	0			0	0
			Appliances/other						0	0			0	0
	Subtotal (lines 6 to 13)								1858	3152			1760	3152
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			31	0
14	Subtotal								1858	3152			1791	3152
15	Duct loads					0%	0%		0	0	-0%	0%	0	0
	Total room load								1858	3152			1791	3152
	Air required (cfm)								77	223			74	223

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Uponor System Design Software 18.0.16 RSU07680

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Page 9



# Right-J® Worksheet Bed 1 Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Coats		Bath 1								
2 Exposed wall				0 ft		0 ft								
3 Room height				8.0 ft		8.0 ft								
4 Room dimensions				4.0 x 5.5 ft		12.0 x 5.5 ft								
5 Room area				22.0 ft²		66.0 ft²								
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.44	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	2.63	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	22	22	25	0	66	66	74	0
6	c) AED excursion									0				0
	Envelope loss/gain								25	0			74	0
12	a) Infiltration								0	0			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								25	0			74	0
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								43	0			-74	0
	Subtotal								67	0			0	0
14	Duct loads								-0%	0%			0	0
15	Total room load								67	0			0	0
	Air required (cfm)								3	0			0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet

## Bed 2 Zone

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name				Bed 2 Zone				Bed 2				
2		Exposed wall				8.0 ft 82.5 ft p				8.0 ft 24.0 ft heat/cool				
3		Room height								1.0 x 163.8 ft				
4		Room dimensions												
5		Room area				452.3 ft²				163.8 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	2.63	0.00	196	196	516	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	2.63	0.00	228	228	600	0	92	92	242	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.59	0.00	100	59	35	0	100	59	35	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	41	0	1317	1506	41	0	1317	1506
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	2.10	0.00	136	115	242	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	21	0	670	1380	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	452	452	507	0	164	164	183	0
6	c) AED excursion									1618				1189
	Envelope loss/gain								3886	4504			1777	2694
12	a) Infiltration								0	0			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0			0	0			0	0
			Appliances/other						0				0	0
	Subtotal (lines 6 to 13)								3886	4504			1777	2694
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								3886	4504			1777	2694
15	Duct loads					0%	0%		0	0	-0%	0%	0	0
	Total room load								3886	4504			1777	2694
	Air required (cfm)								161	319			74	191

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.







# Right-J® Worksheet

## Bed 2 Zone

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

				Hall 1 24.0 ft 8.0 ft heat/cool 1.0 x 166.0 ft 166.0 ft²				Stair 1 34.5 ft 8.0 ft heat/cool 24.5 x 5.0 ft 122.5 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	2.63	0.00	0	0	0	0	196	196	516	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	2.63	0.00	96	96	253	0	40	40	105	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.59	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	2.10	0.00	96	75	136	0	40	40	105	0
	└G	1D-c2ow	0.570	w	31.92	65.73	21	0	670	1380	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	1.12	0.00	166	166	186	0	123	123	137	0
6	c) AED excursion									430				0
	Envelope loss/gain								1245	1810			864	0
12	a) Infiltration								0	0			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								1245	1810			864	0
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1245	1810			864	0
15	Duct loads								0	0			0	0
	Total room load								1245	1810			864	0
	Air required (cfm)								52	128			36	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Uponor System Design Software 18.0.16 RSU07680

C:\Users\patri\Desktop\Lot 14 8-16-18.rup Calc = MJ8 Front Door faces: N



# Right-J® Worksheet

## Bed 3 Zone

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Bed 3 Zone				Bed 3						
2 Exposed wall				47.4 ft				23.5 ft						
3 Room height				8.0 ft				8.0 ft						
4 Room dimensions				p				1.0 x 158.0 ft						
5 Room area				346.0 ft²				158.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	96	96	1833	728	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	96	55	1046	415	96	55	1046	415
	└G	1D-c2ow	0.570	s	31.92	36.50	41	0	1317	1506	41	0	1317	1506
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	188	188	3590	1426	92	92	1757	698
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									1647				1647
	Envelope loss/gain								7785	5723			4119	4266
12	a) Infiltration								1077	208			533	103
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								8863	5931			4652	4369
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								8863	5931			4652	4369
15	Duct loads					0%	0%		0	0		-0%	0%	0
	Total room load								8863	5931			4652	4369
	Air required (cfm)								367	419			193	309

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Right-J® Worksheet**  
**Bed 3 Zone**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				WD		Hall 2								
2 Exposed wall				0 ft		23.9 ft								
3 Room height				8.0 ft		8.0 ft								
4 Room dimensions				4.0 x 5.5 ft		1.0 x 166.0 ft								
5 Room area				22.0 ft²		166.0 ft²								
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	0	0	0	0	96	96	1833	728
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	0	0	0	0	96	96	1833	728
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									0				0
	Envelope loss/gain									0	0		3666	1457
12	a) Infiltration									0	0		544	105
	b) Room ventilation									0	0		0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)									0	0		4211	1562
	Less external load									0	0		0	0
	Less transfer									0	0		0	0
	Redistribution									0	0		0	0
14	Subtotal									0	0		4211	1562
15	Duct loads									0	0		0	0
	Total room load									0	0		4211	1562
	Air required (cfm)									0	0		174	110

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Bed 4 Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name				Bed 4 Zone				Bed 4				
2		Exposed wall				8.0 ft				24.0 ft				
3		Room height				58.5 ft				p				
4		Room dimensions				8.0 ft				8.0 ft				
5		Room area				352.3 ft²				163.8 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	19.10	7.59	196	196	3743	1487	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	132	132	2521	1002	92	92	1757	698
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	100	59	1122	446	100	59	1122	446
	└─G	1D-c2ow	0.570	s	31.92	36.50	41	0	1317	1506	41	0	1317	1506
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	40	40	764	303	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									1647				1647
	Envelope loss/gain								9466	6390			4195	4296
12	a) Infiltration								1327	256			544	105
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								10793	6646			4740	4401
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								10793	6646			4740	4401
15	Duct loads					0%	0%		0	0	-0%	0%	0	0
	Total room load								10793	6646			4740	4401
	Air required (cfm)								447	470			196	311

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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# Right-J® Worksheet Bed 4 Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

				Bath 2 0 ft				Stair 2 34.5 ft						
				8.0 ft 12.0 x 5.5 ft				8.0 ft 24.5 x 5.0 ft						
				66.0 ft²				122.5 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
1		Room name												
2		Exposed wall												
3		Room height												
4		Room dimensions												
5		Room area												
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	0.00	0.00	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	19.10	7.59	0	0	0	0	196	196	3743	1487
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	19.10	7.59	0	0	0	0	40	40	764	303
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	19.10	7.59	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	19.10	7.59	0	0	0	0	40	40	764	303
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									0				0
	Envelope loss/gain									0	0		5270	2094
12	a) Infiltration								0	0			783	151
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)									0	0		6053	2245
	Less external load									0	0		0	0
	Less transfer									0	0		0	0
	Redistribution									0	0		0	0
14	Subtotal									0	0		6053	2245
15	Duct loads									0	0		0	0
	Total room load									0	0		6053	2245
	Air required (cfm)									0	0		251	159

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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# Right-J® Worksheet

## Main Zone

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Main Zone				Living						
2 Exposed wall				119.5 ft				45.5 ft						
3 Room height				10.0 ft				10.0 ft						
4 Room dimensions				p				28.0 x 17.5 ft						
5 Room area				1170.0 ft²				490.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	500	438	1668	663	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	62	0	1979	1474	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	380	380	1447	575	280	280	1066	424
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.81	1.51	315	221	841	334	175	81	307	122
	└─G	1D-c2ow	0.570	w	31.92	65.73	94	0	3008	6195	94	0	3008	6195
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	1170	1170	1900	741	490	490	796	310
	F	19C-19cscop	0.000	-	0.00	0.00	1170	1170	0	0	490	490	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									3624				3193
	Envelope loss/gain								10843	13606			5178	10244
12	a) Infiltration								3388	654			1290	249
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								14231	14260			6468	10493
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								14231	14260			6468	10493
15	Duct loads								0	0	-0%	0%	0	0
	Total room load								14231	14260			6468	10493
	Air required (cfm)								598	564			272	415

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet

## Main Zone

Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Receiving 12.0 ft 10.0 ft heat/cool 12.0 x 14.0 ft 168.0 ft²				Kitchen 30.0 ft 10.0 ft heat/cool 28.0 x 14.0 ft 392.0 ft²									
2 Exposed wall	3 Room height	4 Room dimensions	5 Room area	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
								Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00		0	0	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00		0	0	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	120	120	457	182	280	218	830	330			
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0	62	0	1979	1474			
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	0	0	0	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	3.81	1.51	0	0	0	0	20	20	76	30			
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	0	0	0	0			
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0			
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0			
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0			
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0			
	└─G	8Acw-2w	1.160	-	0.00	0.00	0	0	0	0	0	0	0	0			
	C	18B-38w	0.029	-	1.62	0.63	168	168	273	106	392	392	637	248			
	F	19C-19cscp	0.000	-	0.00	0.00	168	168	0	0	392	392	0	0			
	F	19C-19cscp	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0			
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0			
6	c) AED excursion																443
	Envelope loss/gain								730	284			3522	2525			
12	a) Infiltration								340	66			851	164			
	b) Room ventilation								0	0			0	0			
13	Internal gains:		Occupants @	230			0				0	0					0
			Appliances/other								0	0					0
	Subtotal (lines 6 to 13)								1070	350			4373	2690			
	Less external load								0	0			0	0			
	Less transfer								0	0			0	0			
	Redistribution								0	0			2321	727			
14	Subtotal								1070	350			6693	3417			
15	Duct loads							-0%	0%	0	0	-0%	0%	0	0		
	Total room load								1070	350			6693	3417			
	Air required (cfm)								45	14			281	135			

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





**Right-J® Worksheet**  
**Main Zone**  
**Harris Dudley Co.**

**Job:**  
**Date:** Apr 12, 2018  
**By:** Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Pantry										
2 Exposed wall				32.0 ft										
3 Room height				10.0 ft		heat/cool								
4 Room dimensions				10.0 x 12.0 ft										
5 Room area				120.0 ft²										
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0				
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	n	3.81	1.51	100	100	381	151				
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0				
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	e	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	e	0.00	0.00	0	0	0	0				
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	s	3.81	1.51	100	100	381	151				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	w	3.81	1.51	120	120	457	182				
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0				
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0				
	└─G	8Aow-2w	1.160	-	0.00	0.00	0	0	0	0				
	C	18B-38w	0.029	-	1.62	0.63	120	120	195	76				
	F	19C-19cscop	0.000	-	0.00	0.00	120	120	0	0				
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0				
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0				
6	c) AED excursion									-8				
	Envelope loss/gain								1413	552				
12	a) Infiltration								907	175				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							0				
	Subtotal (lines 6 to 13)								2321	727				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								-2321	-727				
14	Subtotal								0	0				
15	Duct loads						-0%	0%	0	0				
	Total room load								0	0				
	Air required (cfm)								0	0				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.







# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1		Room name				Master Zone 196.0 ft				Master Bed 35.5 ft				
2		Exposed wall				9.5 ft				10.0 ft				
3		Room height				p				heat/cool				
4		Room dimensions				1870.5 ft²				1.0 x 299.0 ft				
5		Room area								299.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	68	68	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	380	358	1363	542	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	22	0	702	523	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	100	100	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.81	1.51	315	244	927	368	175	104	394	157
	└─G	1D-c2ow	0.570	e	31.92	65.73	72	0	2282	4700	72	0	2282	4700
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	196	196	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	500	233	888	353	180	84	319	127
	└─G	1D-c2ow	0.570	s	31.92	36.50	267	0	8515	9737	96	0	3072	3513
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	248	220	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	28	0	894	1841	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	464	415	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	49	0	3176	9158	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	1003	1003	1628	635	290	290	471	184
	F	19C-19cscp	0.000	-	0.00	0.00	709	709	0	0	243	243	0	0
	F	19C-19cscp	0.000	-	0.00	0.00	123	123	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									10554				3115
	Envelope loss/gain								20376	38411			6539	11795
12	a) Infiltration								5123	989			1006	194
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								25499	39400			7545	11990
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								25499	39400			7545	11990
15	Duct loads					0%	0%		0	0	-0%	0%	0	0
	Total room load								25499	39400			7545	11990
	Air required (cfm)								1072	1557			317	474

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Master Bath 28.0 ft				Media 16.0 ft						
2 Exposed wall				10.0 ft heat/cool				10.0 ft heat/cool						
3 Room height				14.0 x 14.0 ft				1.0 x 286.0 ft						
4 Room dimensions				196.0 ft²				286.0 ft²						
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	140	118	449	179	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	22	0	702	523	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.81	1.51	140	140	533	212	0	0	0	0
	└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	0	0	0	0	160	78	295	117
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	83	0	2633	3011
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	147	147	239	93	252	252	409	160
	F	19C-19cscop	0.000	-	0.00	0.00	190	190	0	0	24	24	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									116				3033
	Envelope loss/gain								1923	1122			3338	6321
12	a) Infiltration								794	153			454	88
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								2717	1276			3791	6409
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			10	4
14	Subtotal								2717	1276			3802	6413
15	Duct loads								0	0	-0%	0%	0	0
	Total room load								2717	1276			3802	6413
	Air required (cfm)								114	50			160	253

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Dogs		WCloset								
2 Exposed wall				0 ft		0 ft								
3 Room height				10.0 ft		10.0 ft								
4 Room dimensions				7.5 x 4.5 ft		8.5 x 4.5 ft								
5 Room area				33.8 ft²		38.3 ft²								
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion								0				0	
	Envelope loss/gain								0	0			0	0
12	a) Infiltration								0	0			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0			0	0			0	0
			Appliances/other						0				0	0
	Subtotal (lines 6 to 13)								0	0			0	0
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								0	0			0	0
15	Duct loads								0	0			0	0
	Total room load								0	0			0	0
	Air required (cfm)								0	0			0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Stacked WD 0 ft				Stair 3 24.0 ft						
2 Exposed wall				10.0 ft heat/cool				10.0 ft heat/cool						
3 Room height				4.0 x 4.5 ft				24.0 x 6.0 ft						
4 Room dimensions				18.0 ft²				144.0 ft²						
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	0	0	0	0	240	240	914	363
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	14	14	22	9	18	18	29	11
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	36	36	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									0				-20
	Envelope loss/gain								22	8			943	355
12	a) Infiltration								0	0			680	131
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								22	8			1624	486
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								-22	-8			0	0
14	Subtotal								0	0			1624	486
15	Duct loads								0	0			0	0
	Total room load								0	0			1624	486
	Air required (cfm)								0	0			68	19

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Foyer		Mud								
2 Exposed wall				0 ft		27.0 ft								
3 Room height				10.0 ft		8.0 ft								
4 Room dimensions				1.0 x 128.0 ft		8.5 x 18.5 ft								
5 Room area				128.0 ft²		157.3 ft²								
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	68	68	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0	148	120	0	0
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	28	0	894	1841
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0	157	157	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	0	0	0	0	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	18	18	29	11	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	123	123	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion													868
	Envelope loss/gain								29	11			894	2709
12	a) Infiltration								0	0			612	118
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0			0	0				0
			Appliances/other						0	0				0
	Subtotal (lines 6 to 13)								29	11			1506	2827
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								10	4			0	0
14	Subtotal								40	15			1506	2827
15	Duct loads								0	0			0	0
	Total room load								40	15			1506	2827
	Air required (cfm)								2	1			63	112

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



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# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Stair 4 10.0 ft 8.0 ft 24.5 x 5.0 ft 122.5 ft²				Mech 39.5 ft 8.0 ft 24.5 x 7.5 ft 183.8 ft²						
2 Exposed wall														
3 Room height														
4 Room dimensions														
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	n	3.81	1.51	0	0	0	0	0	0	0	0
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0	0	0	0	0
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	e	0.00	0.00	40	40	0	0	60	60	0	0
	└─W	12E-0sw	0.068	e	3.81	1.51	0	0	0	0	0	0	0	0
	└─└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0	0	0	0	0
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0	196	196	0	0
	└─W	12E-0sw	0.068	s	3.81	1.51	0	0	0	0	0	0	0	0
	└─└─G	1D-c2ow	0.570	s	31.92	36.50	0	0	0	0	0	0	0	0
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0	0	0	0	0
	└─└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0	0	0	0	0
	W	12C-0sw	0.000	w	0.00	0.00	40	40	0	0	60	60	0	0
	└─└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0	0	0	0	0
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0	0	0	0	0
	└─└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0	0	0	0	0
	G	16B-30ad	0.000	-	0.00	0.00	123	74	0	0	184	184	0	0
	└─G	8Aow-2w	1.160	-	64.96	187.33	49	0	3176	9158	0	0	0	0
	C	18B-38w	0.029	-	1.62	0.63	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0	0	0	0	0
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									213				-7
	Envelope loss/gain								3176	9371			0	-7
12	a) Infiltration								227	44			896	173
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		0				0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								3403	9415			896	166
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								896	166			-896	-166
14	Subtotal								4299	9581			0	0
15	Duct loads								0	0			0	0
	Total room load								4299	9581			0	0
	Air required (cfm)								181	379			0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





# Right-J® Worksheet Master Zone Harris Dudley Co.

Job:  
Date: Apr 12, 2018  
By: Patrick Wallace

3039 S Specialty Circle, Salt Lake City, Utah 84115 Phone: 801-363-3883

1 Room name				Dining										
2 Exposed wall				10.0 ft		16.0 ft		heat/cool						
3 Room height				1.0		x		264.0 ft						
4 Room dimensions				264.0 ft²										
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0sw	0.000	n	0.00	0.00	0	0	0	0				
	└─D	11D0	0.000	n	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	n	3.81	1.51	0	0	0	0				
	└─G	1D-c2ow	0.570	n	31.92	23.77	0	0	0	0				
11	W	14F-0	0.341	n	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	n	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	e	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	e	3.81	1.51	0	0	0	0				
	└─G	1D-c2ow	0.570	e	31.92	65.73	0	0	0	0				
	W	14F-0	0.341	e	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	e	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	s	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	s	3.81	1.51	160	72	274	109				
	└─G	1D-c2ow	0.570	s	31.92	36.50	88	0	2809	3212				
	W	14F-0	0.341	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	s	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	s	0.00	0.00	0	0	0	0				
	W	12C-0sw	0.000	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	31.92	65.73	0	0	0	0				
	└─D	11D0	0.000	w	0.00	0.00	0	0	0	0				
	W	12E-0sw	0.068	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	W	14F-0	0.341	w	0.00	0.00	0	0	0	0				
	W	15B11-0wc-10	0.099	w	0.00	0.00	0	0	0	0				
	└─G	1D-c2ow	0.570	w	0.00	0.00	0	0	0	0				
	G	16B-30ad	0.000	-	0.00	0.00	0	0	0	0				
	└─G	8Aow-2w	1.160	-	64.96	187.33	0	0	0	0				
	C	18B-38w	0.029	-	1.62	0.63	264	264	429	167				
	F	19C-19cscop	0.000	-	0.00	0.00	216	216	0	0				
	F	19C-19cscop	0.000	-	0.00	0.00	0	0	0	0				
	F	21A-32w	0.020	-	0.00	0.00	0	0	0	0				
6	c) AED excursion									3236				
	Envelope loss/gain								3512	6724				
12	a) Infiltration								454	88				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							0				
	Subtotal (lines 6 to 13)								3966	6812				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								1	0				
14	Subtotal								3967	6813				
15	Duct loads						-0%	0%	0	0				
	Total room load								3967	6813				
	Air required (cfm)								167	269				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

