


FORM J1_{AE} • ABRIDGED VERSION of MANUAL J, 8TH EDITION

Project	northcanaan112413	Design State & City	Connecticut	Waterbury			
Indoor Design Heating db	70	Outdoor 99% db	2	HTD			68
Indoor Design Cooling db	75	Outdoor 1% db	85	CTD			10
Indoor Design Cooling RH	50%	Grains Difference	29	Daily Range			Medium
Latitude	41	Elevation	850	ACF			0.978
						Block Load	

		Glass Direction	Construction Detail	Heating HTM	Cooling HTM	Net Area	Heating BTUH	Cooling BTUH	
6A	Windows & Glass Doors	N	8Bc-4 Flat Clear, Double Pane, Vinyl U = 0.40	27.20	13.00	25	680	325	
		S	8Bc-4 Flat Clear, Double Pane, Vinyl U = 0.40	27.20	21.00	28	762	588	
		E/W	8Bc-4 Flat Clear, Double Pane, Vinyl U = 0.40	27.20	43.00	152	4134	6536	
6B	Skylights								
7	Wood & Metal Doors	a	11N, Metal, Polystyrene Core	23.80	7.35	56	1333	412	
		b							
		c							
8	Above Grade Walls	a	R19 2x6	3.60	0.37	418	1506	155	
		b	R13 2 x 4	5.24	0.54	940	4922	507	
		c	concrete R13	5.24	0.54	72	377	39	
		d							
		e							
	Partition Walls	f	to unheated garage R13	3.85	1.08	262	1009	282	
		g							
9	Below Grade Walls	a	concrete R33	2.04		325	663		
		b							
10	Ceilings	a	Use R30 ceiling	2.24	1.82	1215	2726	2205	
		b							
		c							
	Partition Ceilings	d							
		e							
11	Passive Floors	a	R19 over unheated garage	2.62	0.75	286	750	214	
		b							
	Exposed Floors	c							
		d	slab R10	6.80		108	734		
		e							
	Basement Floor	f							
	Partition Floors	g							
12	Infiltration	Envelope Leakage	Semi-Tight	Heated & Cooled Floor Area = Sq. Ft.	2150	Above Grade = Cu. Ft.	17200	5562	339
		No. of Fireplaces	1						
13	Internal Gains	Number of Bedrooms			Occupants				
		Appliance - 0 BTUH							
14	Sub Totals							25159	11602
15	Duct Loss & Gain	7E-T&B SA in Attic, RA Riser in Floor to Ceiling Chase, Perimeter Supply Outlets							
		R-Value = 6	Leakage Class .12/.24	0.059	0.064		1488	739	
		Installed Square Feet of Surface or Default = 1	Supply	100	Return	50			
16	Ventilation	Combustion Air From Conditioned Space							
19	Blower Heat Gain	Manufacturer's performance data has no blower heat discount							1707
20	Total Sensible Loss or Gain	<input type="checkbox"/> Furnace <input checked="" type="checkbox"/> Water Heater						26647	14048

Peter J.Tavino Jr. PEPC PO Box 277 Litchfield, CT 06759 860-459-8279 LitchfieldGeothermal.com	21	Latent Infiltration load for cooling				608
		Latent load for occupants				
		Latent load for plants	Small	Medium	Large	100
			5			
		Latent load for duct in unconditioned space				352
Latent ventilation load for cooling						
Total Latent Gain				1060		