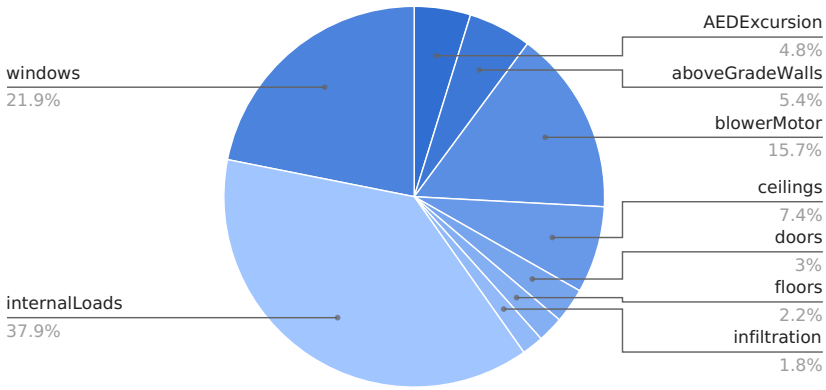
Project Name: [redacted]
Address: [redacted]
FormType: HVAC System
HVAC System Name: Downstairs

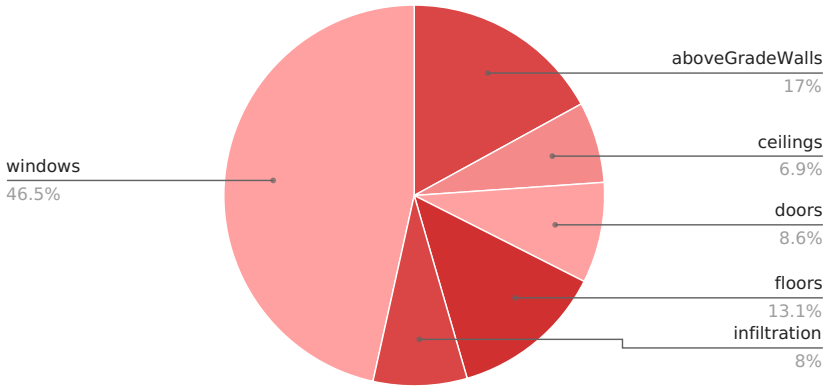
NORWALK, CT							
Summer Outdoor F:	84	Summer Indoor F:	75	Design Grains:	29	Daily Range:	Medium
Winter Outdoor F:	9	Winter Indoor F:	70	Cooling RH:	50%	Elevation (Ft):	397

LOAD CALCULATION TOTALS							
Heating BTU:	10951	Cooling BTU:	10873	SHR:	0.910	CFM:	502



Cooling Loads

Name	Area	Sensible	Latent
AEDExcursion	0.00	519.80	0.00
aboveGradeWalls	315.00	583.60	0.00
belowGradeWalls	0.00	0.00	0.00
blowerMotor	0.00	1706.50	0.00
ceilings	325.00	802.75	0.00
doors	48.00	322.56	0.00
floors	325.00	239.69	0.00
infiltration	0.00	66.74	132.94
internalLoads	0.00	3320.00	800.00
skylights	0.00	0.00	0.00
ventilation	0.00	0.00	0.00
windows	96.00	2378.70	0.00
winterHumidification	0.00	0.00	0.00
Totals	-	9940.34	932.94

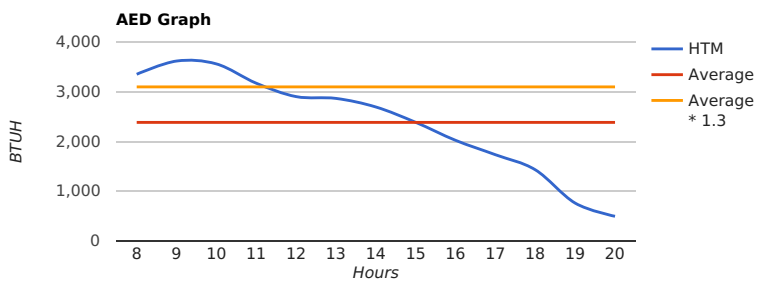


Heating Loads

Name	Area	Heat Loss
AEDExcursion	0.00	0.00
aboveGradeWalls	315.00	1863.85
belowGradeWalls	0.00	0.00
blowerMotor	0.00	0.00
ceilings	325.00	753.35
doors	48.00	936.96
floors	325.00	1430.00
infiltration	0.00	872.40
internalLoads	0.00	0.00
skylights	0.00	0.00
ventilation	0.00	0.00
windows	96.00	5094.72
winterHumidification	0.00	0.00
Totals	-	10951.29

Warning (1): This application has glass areas that produced large cooling loads for part of the day. Zoning may be required to overcome solar load spikes for one or more rooms. Consider a zoned system, or provide zone control (individual, motorized, thermostatically controlled dampers) for problem rooms. Single speed equipment may not be suitable for the application.

AED Graph



Approved ACCA MJ8 Calculations

Calculations are based on the ACCA Manual J 8th Edition and are approved by ACCA. All computed calculations are estimates on building use, weather data, and inputted values such a R-Values, window types, duct loss, etc. Equipment selections should meet both the latent and sensible gain as well as building heat loss. See Cool Calc Manual S Report for equipment sizing verification.

Project Name: [redacted]
Address: [redacted]
FormType: HVAC System
HVAC System Name: Downstairs

COMPONENT LOADS

Above Grade Walls

Construction Nr.	Exposure	Area	Heating HTM	Cooling HTM	Heating BTU	Sensible BTU	Latent BTU
12B-0s w	E	93.00	5.92	1.85	550.28	172.30	0.00
12B-0s w	S	69.00	5.92	1.85	408.27	127.84	0.00
12B-0s w	N	69.00	5.92	1.85	408.27	127.84	0.00
12B-0s w	E	84.00	5.92	1.85	497.03	155.63	0.00

Below Grade Walls

(none)

Blower Motor

Heating BTU	Sensible BTU	Latent BTU
0.00	1706.50	0.00

Ceilings

Construction Nr.	Area	Heating HTM	Cooling HTM	Heating BTU	Sensible BTU	Latent BTU
16A-25	169.00	2.32	2.47	391.74	417.43	0.00
16A-25	156.00	2.32	2.47	361.61	385.32	0.00

Doors

Construction Nr.	Exposure	Area	Heating HTM	Cooling HTM	Heating BTU	Sensible BTU	Latent BTU
11	S	24.00	19.52	6.72	468.48	161.28	0.00
11	N	24.00	19.52	6.72	468.48	161.28	0.00

Floors

Construction Nr.	Area	Heating HTM	Heating BTU	Sensible BTU	Latent BTU
19A-5p	169.00	4.40	743.60	124.64	0.00
19A-5p	156.00	4.40	686.40	115.05	0.00

Infiltration

NCFM Heating	NCFM Cooling	Heating BTU	Sensible BTU	Latent BTU
13.16	6.83	872.40	66.74	132.94

Internal Loads

Heating BTU	Sensible BTU	Latent BTU
0.00	920.00	800.00
0.00	2400.00	0.00

Ventilation

(none)

Windows

Construction Nr.	Exposure	Area	Heating HTM	Heating BTU	Sensible BTU Avg.	Sensible BTU Peak	Latent BTU
1G	E	24.00	53.07	1273.68	692.06	1484.55	0.00
1G	S	24.00	53.07	1273.68	680.62	1225.51	0.00
1G	E	24.00	53.07	1273.68	692.06	1484.55	0.00
1G	N	24.00	53.07	1273.68	313.96	433.87	0.00

Winter Humidification

(none)

Project Name: [redacted]
Address: [redacted] Darien, CT
FormType: HVAC System
HVAC System Name: Downstairs

ROOM LOADS

Room Name	Heating	Sensible	Latent	Cooling	CFM
Dining	5554.49	2665.07	67.78	2732.85	134.00
family room	5396.80	2342.53	65.17	2407.70	118.00