Window, Skylight and Door Schedule

Project Information

| NGUYEN RESIDENCE |
| 8937 SE 56TH ST |
| MERCER ISLAND, WA 98040 |

Contact Information

| AARON HECKMAN |
| 501 ROY ST, C232 |
| SEATTLE, WA 98109 |

	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
Exempt Swinging Door (24 sq. ft. max.)								0.0	0.00
Exempt Glazed Fenestration (15 sq. ft. max.)								0.0	0.00

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
GARAGE DOOR	103	0.20	1	3		8		24.0	4.80
FOLDING GLASS DOOR	105	0.20	1	9		8		72.0	14.40
SIDE DOOR	109	0.20	1	3		8		24.0	4.80
ADU DOOR	115	0.20	1	3		8		24.0	4.80
FIXED DOOR PANEL	116	0.20	1	3		8		24.0	4.80
FIXED DOOR PANEL	117	0.20	1	3		8		24.0	4.80
FIXED WINDOW	A	0.20	2	2	6	2	6	12.5	2.50
CASEMENT WINDOW	B	0.20	2	1	6	5		15.0	3.00
CASEMENT WINDOW	C	0.20	6	5	6	5		165.0	33.00
CASEMENT WINDOW	D	0.20	11	1	6	3	6	57.8	11.55
CASEMENT WINDOW	E	0.20	2	2	6	5		25.0	5.00
CASEMENT WINDOW	F	0.20	1	5	6	4		22.0	4.40
FIXED WINDOW	G	0.20	1	1	9	3	6	6.1	1.23
SLIDING WINDOW	H	0.20	2	6	6	3	6	45.5	9.10
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00

						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00

Sum of Vertical Fenestration Area and UA	540.9 108.18
Vertical Fenestration Area Weighted U = UA/Area	0.20

Overhead Glazing (Skylights)

Component Description	Ref.	U-factor	Qt.	Width Feet Inch	Height Feet Inch	Area	UA
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00
						0.0	0.00

Sum of Overhead Glazing Area and UA	0.0 0.00
Overhead Glazing Area Weighted U = UA/Area	0.00

Total Sum of Fenestration Area and UA *(for heating system sizing calculations)*   540.9   108.18

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2018 Washington State Energy Code (WSEC) and ACCA Manuals J and S. This tool will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please complete the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please contact the WSU Energy Program at energycode@energy.wsu.edu or (360) 956-2042 for assistance.

Project Information	*Contact Information*
NGUYEN RESIDENCE	AARON HECKMAN
8937 SE 56TH ST	501 ROY ST, C232
MERCER ISLAND, WA 98040	SEATTLE, WA 98109

Heating System Type: ○ All Other Systems   ● Heat Pump

To see detailed instructions for each section, place your cursor on the word "Instructions"

Design Temperature
Instructions

Mercer Island ▼

Design Temperature Difference (ΔT)   45
ΔT = Indoor (70 degrees) - Outdoor Design Temp

Area of Building
Conditioned Floor Area
Instructions
Conditioned Floor Area (sq ft)   **4,461**

Average Ceiling Height
Instructions
Average Ceiling Height (ft)   **9.5**

Conditioned Volume
42,380

Glazing and Doors
Instructions

U-0.20 ▼

	U-Factor	X	Area	=	UA
	0.200		541		108.20

Skylights
Instructions

	U-Factor	X	Area	=	UA
	0.50				---

Insulation
Attic
Instructions

R-49 ▼

	U-Factor	X	Area	=	UA
	0.026		1,813		47.14

Single Rafter or Joist Vaulted Ceilings
Instructions

Select R-Value ▼

	U-Factor	X	Area		UA
	No selection				---

Above Grade Walls *(see Figure 1)*
Instructions

R-21 Intermediate ▼

	U-Factor	X	Area		UA
	0.056		3,275		183.40

Floors
Instructions

R-38 ▼

	U-Factor	X	Area		UA
	0.025		2,053		51.33

Below Grade Walls *(see Figure 1)*
Instructions

Select R-value ▼

	U-Factor	X	Area		UA
	No selection				---

Slab Below Grade *(see Figure 1)*
Instructions

Select conditioning ▼

	F-Factor	X	Length		UA
	No selection				---

Slab on Grade *(see Figure 1)*
Instructions

Select R-Value ▼

	F-Factor	X	Length		UA
	No selection				---

Location of Ducts
Instructions

Conditioned Space ▼

Duct Leakage Coefficient
1.00

Figure 1.

Above Grade
Below Grade
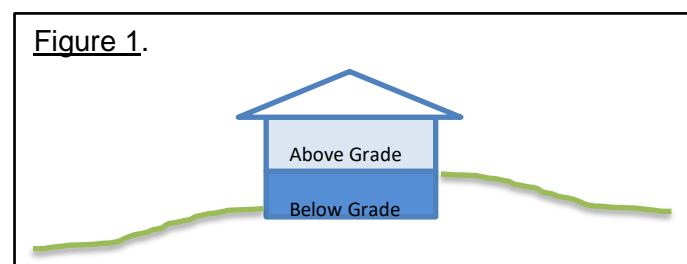
Sum of UA   390.06

Envelope Heat Load   17,553   Btu / Hour
Sum of UA x ΔT

Air Leakage Heat Load   20,596   Btu / Hour
Volume x 0.6 x ΔT x 0.018

Building Design Heat Load   38,149   Btu / Hour
Air leakage + envelope heat loss

Building and Duct Heat Load   38,149   Btu / Hour
Ducts in unconditioned space: sum of building heat loss x 1.10
Ducts in conditioned space: sum of building heat loss x 1

Maximum Heat Equipment Output   47,687   Btu / Hour
Building and duct heat loss x 1.40 for forced air furnace
Building and duct heat loss x 1.25 for heat pump