

Perscriptive Energy Calculations

In accordance with:
Washington State Energy Code - Residential - 2018 Edition

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

TABLE R402.1.1

CLIMATE ZONE 5 AND MARINE 4	
Fenestration U-Factor	0.30
Skylight U-Factor	0.50
Ceiling R-Value	49
Wood Frame Wall R-Value	21 int
Floor R-Value	30
Below-Grade Wall R-value	10/15/21 int + 5TB
Slab R-Value	10, 2 ft

Fenestration U-Factor **0.29** max **0.30**

	area (sf)	U-factor	weighted val
ext. windows int. cy	321.81	0.28	0.04
ext. glass doors int. cy	40.10	0.30	0.01
ext. steel doors int. cy	38.95	0.58	0.01
ext. windows WE	682.29	0.28	0.09
ext. steel doors WE	20.63	0.58	0.01
ext. windows NS	798.44	0.28	0.11
ext. glass doors NS	101.59	0.30	0.02
int. garage steel door	20.64	0.58	0.01
total sf / average U-factor	2024.45	0.29	
max U-factor		0.30	

Ceiling R-Value **50.13** min **49**

	area (sf)	R-value	weighted val
deck roof + container	960	52	15.6
span + container	640	66.47	13.294
span	1600	42.47	21.235
total / average R-value	3200	50.13	
min R-value		49	



Exterior Walls R-Value **23.51** min **21**

	area (sf)	R-value	weighted val
ext. walls int. cy	719.69	24.00	5.71
ext. walls WE	1055.93	24.00	8.37
ext. walls NS	754.67	24.00	5.98
ext. walls NS (framed)	323.70	21.00	2.25
int. garage wall (framed)	172.78	21.00	1.20
total / average R-value	3026.77	23.51	
min R-value		21.00	

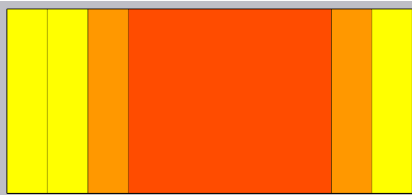
Floor R-Value **30.41** min **30**

	area (sf)	R-value	weighted val
garage	480	52	7.8
basement	480	24	3.6
crawlspace	640	24	4.8
span	1600	28.41	14.205
total / average R-value	3200	30.41	
min R-value		30	




Key

	container + deck
	container + span roof
	span roof

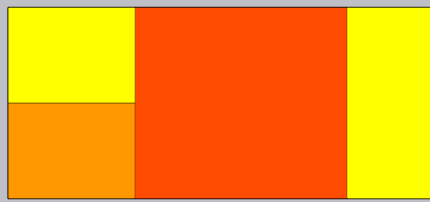
Roof



Key







	crawlspace / basement
	container floor + container ceiling
	span floor

Floor



Exterior Walls

Key

	framed insulated wall
	closed cell foam insulated wall
	steel door
	custom windows
	custom glass doors
	garage

