Design Load Guidelines

Please note that the official site for the report and map is:

http://www.lib.uidaho.edu/digital/idahosnow/

Counties

Ada

Seismic Design Category	C
Ground Snow Load	20 psf
Wind Load	90 mph
Live Load	25 psf
Frost Depth	24"
Elevation Exposure	Varies.

Blaine

See blainecounty.org

Seismic Design Category	Varies.
Ground Snow Load	Varies.
Wind Load	Varies.
Live Load	Varies.
Frost Depth	Varies.
Elevation Exposure	Varies.

Bear Lake

www.bearlakecounty.info

Seismic	D1

Cities

Acequia

Seismic Design Category	C
Ground Snow Load	25 psf
Wind Load	90 mph
Live Load	30 psf
Frost Depth	24 in
Elevation Exposure	

Ammon

Seismic Design Category	D1
Ground Snow Load	50 psf
Wind Load	90 mph, 3 sec gust
Live Load	Per building code
Frost Depth	30 in
Elevation Exposure	

Blackfoot

Seismic Design Category	Category C; Site Class
Ground Snow Load	30 psf
Wind Load	Exposure C 90mph/105, 3 sec gust

Design Category	
Ground Snow Load	45 lbs
Live Load	15 lbs
Frost Depth	32 in
Elevation	5964 ft
Exposure	C

Butte

Seismic Design Category	D1
Ground Snow Load	50 lb
Live Load	35 lb
Frost Depth	30"
Elevation	5350

Camas

Seismic Design Category	C & Do
Ground Snow Load	90, 100, 125 psf
Wind Load	90 mph
Live Load	40 psf
Frost Depth	30 in
Elevation	5052
Exposure	Severe

Canyon

Seismic Design Category	B
Ground Snow Load	25 psf
Live Load	30 psf
Frost Depth	30 in
Elevation	4488 ft
Exposure	

Boise

Seismic Design Category	2003 IRC is Design Category C. 2003 IBC is based on Section 1614
Ground Snow Load	Per local ordinance it is 20 psf with further statement that snow loads shall be determined per Section 7 of ASCE 7, but the design roof load shall not be less than a uniform snow load of 25 psf
Wind Load	90 mph for both 2003 IRC and 2003 IBC
Live Load	per 2003 IRC and 2003 IBC
Frost Depth	24 in
Elevation	2842 ft
Exposure	

Caldwell

Seismic Design Category	B
Ground Snow Load	20 psf
Wind Load	90 mph
Live Load	25 psf
Frost Depth	24 in
Elevation	
Exposure	

Wind Load	90 mph
Live Load	
Frost Depth	24 in
Elevation	
Exposure	C

Clearwater

www.clearwatercounty.org

Seismic Design Category	B
Ground Snow Load	
Wind Load	90 mph
Live Load	Minimums per code
Frost Depth	32"
Elevation	varies from 1000 ft to over 3000 ft; approximate elevations for the city limits of: Orofino 1027; Elk River 2918; Pierce 3087; Weippe 3029
Exposure	

Elmore

Seismic Design Category	C
Ground Snow Load	120 psf above Tollgate, 30 psi below
Wind Load	90 mph
Live Load	30 psf
Frost Depth	36” above Featherville, 30” above Tollgate to Featherville, 24" below
Elevation	3000 to 7000
Exposure	B and C

Chubbuck

Seismic Design Category	D1
Ground Snow Load	45 psf
Wind Load	70 mph and 90 mph, 3 sec gust
Live Load	36 psf
Frost Depth	36 in
Elevation	4470 ft
Exposure	

Coeur d'Alene

Seismic Design Category	C
Ground Snow Load	60 psf
Wind Load	90 mph, 3 sec gusts
Live Load	40 psf
Frost Depth	24 in
Elevation	2128-2860 ft
Exposure	

Fruitland

Seismic Design Category	C
Ground Snow Load	25
Live Load	20
Frost Depth	24 in
Exposure	C

Gooding

Seismic Design Category	C
Ground Snow Load	30 psf
Wind Load	90 mph

Custer

Wind Load	115 mph 3 sec gust

Gooding

Seismic Design Category	C
Ground Snow Load	30 psf
Wind Load	90 mph
Live Load	30 psf
Frost Depth	24 in
Elevation	3500 ft
Exposure	C

Fremont

Seismic Design Category	D1
Ground Snow Load	50/90/170 psf
Wind Load	90 mph, 3 sec gusts
Live Load	Snow 35psf/70psf/90psf/128psf over load as per IBC/IRC
Frost Depth	32 in
Elevation	5000-7000 ft
Exposure	

Jerome

www.jeromecountyid.us

Seismic Design Category	C
Ground Snow Load	20 psf
Live Load	30 psf
Frost Depth	24 in
Elevation	3500 ft
Exposure	C

Hailey

Seismic Design Category	D1
Ground Snow Load	143 psf
Wind Load	90 mph
Live Load	100 psf
Frost Depth	24 in
Elevation	Approx. 5600 ft
Exposure	

Hayden

www.cityofhaydenid.us

Seismic Design Category	C
Ground Snow Load	60 psf
Wind Load	90 mph, 3 second gusts
Live Load	40 psf
Frost Depth	24 in
Elevation	2287 ft
Exposure	Site specific exposure

Heyburn

Seismic Design Category	C
Ground Snow Load	25 psf
Wind Load	90 mph
Live Load	30 psf
Frost Depth	24 in
Elevation	
Exposure	

Wind Load	115 mph 3 sec gust velocity
Wind Exposure	C
Roof Snow Load	30 psf
Live Load	30 psf
Presumed Soil Bearing Pressure	1500 psf without soils investigation
Frost Depth	24 in
Elevation	4048 ft
Climate Zone	5B

Ketchum

Seismic Design Category	D with 35% snow load at time of earthquake. Ss = 73%, S1 = 20.5% or use site specific criteria
Ground Snow Load	120 psf
Wind Load	90 mph
Live Load	100-psf with 100-plf line load @ eaves and unbalanced loading per ASCE7
Frost Depth	24 in
Elevation	
Exposure	

Kootenai

Seismic Design Category	C
Ground Snow Load	Site specific per U of I publication “Ground and Roof Snow for

Idaho Falls

Seismic Design Category	D
Ground Snow Load	47 psf
Wind Load Live Load	90 mph
Frost Depth	30 in
Elevation	4710 ft
Exposure	C

Lewiston

Seismic Design Category	B
Ground Snow Load	30 psf
Wind Load	90 mph, 3 sec gust
Frost Depth	24 in
Elevation	Lowest 739 ft, Highest 1550 ft

McCall

Seismic Design Category	D
Ground Snow Load	150 psf, but the engineered design roof load shall not be less than a uniform snow load of 120 psf
Wind Load	90 mph
Live Load	Varies
Frost Depth	24 in
Elevation	5200 to 5300 ft
Exposure	Varies

	Idaho”
Wind Load	90 mph 3 second gust
Frost Depth	24 in
Elevation	Site specific; 2128+
Exposure	site specific exposure.

Latah

Seismic Design Category	B
Roof Snow Load	Zones of 30#, 40#, 60#, 80# 100# depending on locations (see County snow load map)
Wind Load	90 mph/3 sec. gusts
Live Load	Soil bearing value 1500 psf
Frost Depth	30 in
Elevation	Range approx. 1400-5000 ft
Soils	U.S. Dept. of Agriculture, Soil Survey of Latah County Area, Idaho, April 1981

Lemhi

Seismic Design Category	B, C, D & D0
Ground Snow Load	Please contact the local building department for confirmation.
Wind Load	90 mph, 3 sec gust
Live Load	
Frost Depth	36” below finished grade
Elevation	2500-9000 ft
Exposure	

Moscow

Seismic Design Category	B
Ground Snow Load	64 psf
Wind Load	90 mph, 3 sec gust
Live Load	Snow 40 psf, minimums per code
Frost Depth	30 in
Elevation	2500 to 2800 ft
Exposure	C

Nampa

Seismic Design Category	2009 IRC 2009 IBC
Ground Snow Load	25 psf, collateral load of 5 psf
Roof Snow Load	20 psf, collateral load of 5 psf
Wind Load	90 mph for both 2003 IRC and 2003 IBC
Live Load	per 2003 IRC and 2003 IBC
Frost Depth	24 inches
Elevation	2600 ft.
Exposure	B or C

Orofino

Seismic Design Category	B
Ground Snow Load	30 psf
Wind Load	90 mph with 3 sec gust
Live Load	25 psf
Frost Depth	24 in
Elevation	1000 ft
Exposure	

Lincoln

Seismic Design Category	D
Ground Snow Load	30#
Wind Load	90 mph, 3 sec gust
Live Load	30#
Frost Depth	24” below finished grade
Elevation	4000 ft +/-

Minidoka

Seismic Design Category	C
Ground Snow Load	25 psf
Wind Load	90 mph
Live Load	30 psf
Frost Depth	24 in
Elevation	
Exposure	

Nez Perce

www.co.nezperce.id.us

Seismic Design Category	B
Ground Snow Load	25 - 70 psf
Wind Load	115 mph
Live Load	30 psf
Weathering	Severe
Frost Depth	24-48 in
Termite	Slight to Moderate
Decay	None to Slight

Paul

Seismic Design Category	C
Ground Snow Load	25 psf
Wind Load	90 mph
Live Load	30 psf
Frost Depth	24 in
Elevation	
Exposure	

Pocatello

www.pocatello.us

Seismic Design Category	C or D depending on the building classification and engineers calculation Default “D”
Ground Snow Load	45 psf
Wind Load	Per IBC maps 90 mph 3 second gust
Live Load	31.5 lbs with calculations or default 35 lbs
Frost Depth	36 in
Elevation	4250 ft
Exposure	Default C

Priest River

www.priestriver-id.gov

Seismic Design Category	C
Ground Snow Load	73
Live Load	50 Residential 60 Commecial
Frost Depth	24"

Winter Design Temp	10 degrees F
Flood Hazards	FIRM maps as currently adopted
Mean annual temp	51 degrees F
Climate zone	5 and Marine 4
Elevation	745 - 4800
Exposure	

Owyhee

Seismic Design Category	B
Ground Snow Load	20 psf
Wind Load	90 mph
Live Load	Roof snow load below 6000 ft. 25 psf. Above 6000 ft. 35 psf
Weathering	Severe
Frost Depth	24 in
Termite	Slight to Moderate
Decay	None to Slight
Winter Design Temp	10 Degree F
Ice shield Under-layment	Not required
Flood Hazards	FIRM maps as currently adopted
Air Freezing Index	980
Mean Annual Temp	51 Degrees F
Elevation	
Exposure	

Elevation	2100
Weathering	Severe
Termite	None to slight
Decay	None
Winter Design Temp	10 Degrees

Rathdrum

Seismic Design Category	C
Ground Snow Load	56 psf
Wind Load	90 mph
Live Load	40 psf
Frost Depth	24 in
Elevation	
Exposure	

Rexburg

Seismic Design Category	Depends upon rock profile. Usually D but can be C
Ground Snow Load	50 psf
Wind Load	90 mph
Live Load	Same as IBC – IRC
Frost Depth	36 in
Elevation	4865-5080 ft
Exposure	

Rupert

Seismic Design Category	C
Ground Snow Load	25 psf
Wind Load	90 mph
Live Load	30 psf
Frost Depth	24 in
Elevation	
Exposure	

Power

Seismic Design Category	Group I, Site Class D, Design Category D
Ground Snow Load	45 psf
Wind Load	90 mph
Live Load	30psf
Frost Depth	30 in
Elevation	4600-5200 ft
Exposure	

Teton

Seismic Design Category	D1
Ground Snow Load	60 -130 psf
Live Load	85 lbs per square ft + dead load + drift
Wind Load	90 mph
Frost Depth	32 in
Elevation	6000 ft
Exposure	

Twin Falls

www.twinfallscounty.org

Seismic Design Category	C
Ground Snow Load	30 psf
Wind Load	90 mph with 3 second gust
Soil bearing pressure	1500#

Sandpoint

www.cityofsandpoint.com

Seismic Design Category	C
Ground Snow Load	104 psf
Wind Load	90 mph
Live Load	55 psf
Frost Depth	24 in
Elevation	2075 ft
Exposure	B or C

Soda Springs

Seismic Design Category	D
Ground Snow Load	60 psf
Wind Load	90 mph
Live Load	
Frost Depth	36 in
Elevation	5800-6000 ft
Exposure	

Spirit Lake

Seismic Design Category	C
Ground Snow Load	56 psf
Wind Load	90 mph
Live Load	40 psf
Frost Depth	24in
Elevation	
Exposure	

Flood zone	site specific
Termite	Slight
Frost Depth	24 in min
Elevation	2900-4900 ft
Weathering	Severe

Unless determined differently based on the site evaluation by a qualified design professional. (Ord. 217, 12-16-2010)

Sun Valley

Seismic Design Category	D1 or per IBC Chapter 16
Ground Snow Load	120 psf
Wind Load	90 mph
Live Load	
Frost Depth	24 in
Elevation	5920 +/-
Exposure	B

Twin Falls

www.tfid.org

Seismic Design Category	Site class C
Roof Snow Load	25 psf
Ground Snow Load	15 psf.
Wind Load	90 mph, 3 sec gust velocity
Wind exposure	B (C in some areas)
Live Load	Per IBC, but Section 1608 is amended to include that the minimum uniformly distributed design load shall be 25 psf
Presumed soil bearing pressure	1500psf without soils investigation
Frost Depth	24 in
Climate Zone	5B
Water heating design temp	2 degrees (99% dry bulb)
Elevation	3700
Exposure	Fastest mile/3 second gust 75mph/90mph exposure C.

Table R301.5 is amended to require a minimum uniform live load of 40 psf in habitable attics and sleeping rooms.

Foundations with stem walls shall be provided with a minimum of one # 4 bar at the top of the wall and one #4 bar at the bottom of the footing. #4 vertical bars are required at 6 feet on center.

Basement walls to have one #4 horizontal bar at 4 feet on center. One #4 bar is also required horizontally and vertically around openings, extending 2 feet beyond the opening. One #4 bar to be placed diagonally at corners of openings subject to cracking. Vertical bars installed per IRC.

Unvented fuel-burning appliances are not allowed.

30" minimum crawl space depth measured from bottom of floor joist (per local resolution)

Weiser

Seismic Design Category	C
Ground Snow Load	30 psf
Wind Load	90 mph
Live Load	Per 2009 IRC and 2009 IBC
Weathering	Severe
Frost Depth	24 in
Termite	
Decay	
Winter Design Temp	
Ice shield Under- layment	
Flood Hazards	FIRM Maps Effective date June 16, 2009
Air Freezing Index	980
Mean Annual Temp	50 Degrees F
Elevation	2129
Exposure	

**These charts and numbers are based off the 2015 guidelines*

How to calculate your roof snow load

Consult your local permit issuing authority to find the recorded snow load (the maximum snow expected to fall) in your region. • Calculate your roof pitch: Divide the "rise" (vertical distance between the peak of the roof and the edge) by the "run" (distance from the peak of your roof to the edge) and convert the fraction to a ratio of 12. (For example, if the rise of your roof is 15 feet, the run is 36 feet, then the pitch = 15 feet / 36 feet = 5:12) • Use a calculator like this one. Enter values of your roof and follow the instructions to get your roof snow load

A cubic foot of dry snow weighs about 6 to 8 pounds, while one cubic foot of packed snow could weigh up to 20 pounds. The same volume of ice can weigh three times this amount.

Examples: 24” = 17lbs. per square foot
48” = 33lbs. per square foot
72” = 50lbs. per square foot

For more information please visit the following links

www.fema.gov

http://www.lib.uidaho.edu/digital/idahosnow/GroundSnowLoadsforIdaho2015.pdf

http://www.lib.uidaho.edu/digital/idahosnow/map2015.html