Design Load Guidelines

Please note that the official site for the report and map is:
http://www.lib.uidaho.edu/digital/idahosnow/

<table>
<thead>
<tr>
<th>Counties</th>
<th>Cities</th>
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<tbody>
<tr>
<td><strong>Ada</strong></td>
<td><strong>Acequia</strong></td>
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<tr>
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<td>Wind Load</td>
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<td>Exposure</td>
</tr>
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<td>See blainecounty.org</td>
<td>See <a href="http://www.bearlakecounty.info">www.bearlakecounty.info</a></td>
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<tr>
<td>Frost</td>
<td>Elevation</td>
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<tr>
<td>Depth</td>
<td>Exposure</td>
</tr>
<tr>
<td>Elevation</td>
<td>Varieties.</td>
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<tr>
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<td>Varieties.</td>
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<td>Blackfoot</td>
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<td><a href="http://www.bearlakecounty.info">www.bearlakecounty.info</a></td>
<td>Seismic Design Category C; Site Class</td>
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<tr>
<td>Seismic</td>
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<td>Design</td>
<td>Exposure C</td>
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<tr>
<td>Category</td>
<td>90mph/105, 3 sec gust</td>
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01/30/2017
<table>
<thead>
<tr>
<th>City</th>
<th>Design Category</th>
<th>Ground Snow Load</th>
<th>Live Load</th>
<th>Frost Depth</th>
<th>Elevation</th>
<th>Exposure</th>
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<tbody>
<tr>
<td>Butte</td>
<td>D1</td>
<td>50 lb</td>
<td>35 lb</td>
<td>30&quot;</td>
<td>5350</td>
<td></td>
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<tr>
<td>Camas</td>
<td>C &amp; Do</td>
<td>90, 100, 125 psf</td>
<td>40 psf</td>
<td>30 in</td>
<td>5052</td>
<td>Severe</td>
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<tr>
<td>Canyon</td>
<td>B</td>
<td>25 psf</td>
<td>25 psf</td>
<td>24 in</td>
<td>4488 ft</td>
<td></td>
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<tr>
<td>Caldwell</td>
<td>B</td>
<td>20 psf</td>
<td>90 mph</td>
<td>24 in</td>
<td>2842 ft</td>
<td></td>
</tr>
<tr>
<td>Boise</td>
<td></td>
<td></td>
<td>30 psf</td>
<td>30 in</td>
<td>4488 ft</td>
<td></td>
</tr>
<tr>
<td>Seismic Design Category</td>
<td></td>
<td></td>
<td>2003 IRC is Design Category C. 2003 IBC is based on Section 1614 Ground Snow Load</td>
<td>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 90 mph for both 2003 IRC and 2003 IBC Live Load</td>
<td>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 90 mph for both 2003 IRC and 2003 IBC Frost Depth</td>
<td>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 90 mph for both 2003 IRC and 2003 IBC Elevation</td>
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01/30/2017
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<tr>
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<th>Wind Load</th>
<th>Live Load</th>
<th>Frost Depth</th>
<th>Elevation</th>
<th>Exposure</th>
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<tbody>
<tr>
<td><strong>Clearwater</strong></td>
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<td></td>
<td>90 mph</td>
<td></td>
<td>24 in</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Chubbuck</strong></td>
<td>D1</td>
<td>45 psf</td>
<td>70 mph</td>
<td>36 psf</td>
<td>36 in</td>
<td>4470 ft</td>
<td></td>
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<tr>
<td><strong>Coeur d'Alene</strong></td>
<td>C</td>
<td>60 psf</td>
<td>90 mph</td>
<td>40 psf</td>
<td>24 in</td>
<td>2128-2860 ft</td>
<td></td>
</tr>
<tr>
<td><strong>Elmore</strong></td>
<td>C</td>
<td></td>
<td>90 mph</td>
<td>30 psf</td>
<td>36 in</td>
<td>4470 ft</td>
<td></td>
</tr>
<tr>
<td><strong>Fruitland</strong></td>
<td>C</td>
<td>25</td>
<td>90 mph</td>
<td>20</td>
<td>24 in</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gooding</strong></td>
<td>C</td>
<td>30 psf</td>
<td>90 mph</td>
<td></td>
<td></td>
<td></td>
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</table>

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

www.clearwatercounty.org

Seismic B
Design
Category
Ground Snow Load
Wind Load 90 mph
Live Load Minimums per code
Frost 32"
Depth
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

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

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

Seismic C
Ground Snow Load
Wind Load 90 mph, 3 sec gusts
Live Load 20
Frost Depth 24 in
Exposure C

Seismic C
Ground Snow Load
Wind Load 90 mph

01/30/2017
<table>
<thead>
<tr>
<th>Location</th>
<th>Seismic Design Category</th>
<th>Ground Snow Load</th>
<th>Wind Load</th>
<th>Live Load</th>
<th>Frost Depth</th>
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<th>Exposure</th>
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<tbody>
<tr>
<td>Custer</td>
<td></td>
<td></td>
<td>115 mph</td>
<td>3 sec gust</td>
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<td></td>
<td></td>
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<tr>
<td>Gooding</td>
<td>C</td>
<td>30 psf</td>
<td>90 mph</td>
<td>30 psf</td>
<td>24 in</td>
<td>3500 ft</td>
<td>C</td>
</tr>
<tr>
<td>Hailey</td>
<td>D1</td>
<td>143 psf</td>
<td>90 mph</td>
<td>100 psf</td>
<td>24 in</td>
<td>Approx. 5600 ft</td>
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<tr>
<td>Fremont</td>
<td>D1</td>
<td>50/90/170 psf</td>
<td>90 mph, 3 sec gusts</td>
<td>35psf/70psf/90psf/128psf over load as per IBC/IRC</td>
<td>32 in</td>
<td>5000-7000 ft</td>
<td>C</td>
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<tr>
<td>Jerome</td>
<td>C</td>
<td>20 psf</td>
<td>90 mph</td>
<td>30 psf</td>
<td>24 in</td>
<td></td>
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<tr>
<td>Heyburn</td>
<td>C</td>
<td>25 psf</td>
<td>90 mph</td>
<td>30 psf</td>
<td>24 in</td>
<td></td>
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**01/30/2017**
<table>
<thead>
<tr>
<th>Location</th>
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<th>Wind Load</th>
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<th>Elevation</th>
<th>Exposure</th>
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<tbody>
<tr>
<td>Ketchum</td>
<td>D</td>
<td>120 psf</td>
<td>90 mph</td>
<td>24 in</td>
<td>4048 ft</td>
<td>C</td>
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<tr>
<td>Lewiston</td>
<td>B</td>
<td>30 psf</td>
<td>90 mph, 3 sec gust</td>
<td>24 in</td>
<td>4710 ft</td>
<td>C</td>
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<tr>
<td>McCall</td>
<td>D</td>
<td>150 psf, but the engineered design roof load shall not be less than a uniform snow load of 120 psf</td>
<td>90 mph</td>
<td>3 sec gust</td>
<td>24 in</td>
<td>5200 to 5300 ft</td>
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<td>Idaho Falls</td>
<td>D</td>
<td>47 psf</td>
<td>90 mph</td>
<td>30 in</td>
<td>4710 ft</td>
<td>C</td>
</tr>
</tbody>
</table>
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
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
<table>
<thead>
<tr>
<th>Location</th>
<th>Seismic Design Category</th>
<th>Ground Snow Load</th>
<th>Wind Load</th>
<th>Live Load</th>
<th>Frost Depth</th>
<th>Elevation</th>
<th>Exposure</th>
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<tr>
<td><strong>Lincoln</strong></td>
<td>D</td>
<td>30#</td>
<td>90 mph, 3 sec gust</td>
<td>30#</td>
<td>24” below finished grade</td>
<td>4000 ft +/-</td>
<td></td>
</tr>
<tr>
<td><strong>Minidoka</strong></td>
<td>C</td>
<td>25 psf</td>
<td>90 mph</td>
<td>30 psf</td>
<td>24 in</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nez Perce</strong></td>
<td>B</td>
<td>25 - 70 psf</td>
<td>115 mph</td>
<td>30 psf</td>
<td>24-48 in</td>
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<tr>
<td><strong>Paul</strong></td>
<td>C</td>
<td>25 psf</td>
<td>90 mph</td>
<td>30 psf</td>
<td>24 in</td>
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<td><strong>Pocatello</strong></td>
<td>C or D depending on the building classification and engineers calculation</td>
<td>Default “D”</td>
<td>Per IBC maps 90 mph 3 second gust</td>
<td>31.5 lbs with calculations or default 35 lbs</td>
<td>36 in</td>
<td>4250 ft</td>
<td>Default ft</td>
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<tr>
<td><strong>Priest River</strong></td>
<td>C</td>
<td>73</td>
<td>50 Residential</td>
<td>60 Commercial</td>
<td>24&quot;</td>
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</table>
### 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

### 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 Degrees F
- **Exposure**: 2100
- **Weathering**: Severe
- **Termite**: None to slight
- **Decay**: None
- **Winter Design Temp**: 10 Degrees F

**Rathdrum**

- **Seismic Design Category**: C
- **Ground Snow Load**: 56 psf
- **Wind Load**: 90 mph
- **Live Load**: 40 psf
- **Frost Depth**: 24 in
- **Exposure**: Same as IBC – IRC

**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
- **Exposure**: 4865-5080 ft

**Rupert**

- **Seismic Design Category**: C
- **Ground Snow Load**: 25 psf
- **Wind Load**: 90 mph
- **Live Load**: 30 psf
- **Frost Depth**: 24 in
- **Exposure**:
<table>
<thead>
<tr>
<th><strong>Power</strong></th>
<th><strong>Sandpoint</strong></th>
<th><strong>Teton</strong></th>
<th><strong>Twin Falls</strong></th>
<th><strong>Soda Springs</strong></th>
<th><strong>Spirit Lake</strong></th>
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<td>C</td>
<td>D</td>
<td>C</td>
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<td>60 -130 psf</td>
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<td>60 psf</td>
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<td>Ground</td>
<td>Snow Load</td>
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<td>85 lbs per square ft + dead load + drift</td>
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<td>90 mph</td>
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<td>Live Load</td>
<td>30 psf</td>
<td>32 in</td>
<td>24 in</td>
<td>24 in</td>
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<tr>
<td>Live Load</td>
<td>Frost Depth</td>
<td>30 in</td>
<td>32 in</td>
<td>36 in</td>
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<td>30 in</td>
<td>6000 ft</td>
<td>5600 -6000 ft</td>
<td>5800 -6000 ft</td>
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<td>Depth</td>
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<td>4600-5200 ft</td>
<td>6000 ft</td>
<td>6000 ft</td>
<td>5800-6000 ft</td>
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<td>Exposure</td>
<td>4600-5200 ft</td>
<td>Exposure</td>
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<td>Exposure</td>
<td>Teton</td>
<td>Twin Falls</td>
<td>Soda Springs</td>
<td>Spirit Lake</td>
</tr>
</tbody>
</table>

01/30/2017
Flood zone site specific
Termite  Slight
Frost     24 in min
Depth
Elevation  2900-4900 ft
WeatheringSevere
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*

01/30/2017
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
