



Design Loads for City of Washougal

The City of Washougal formally adopted the International Codes as of July 1, 2016.

Applicable codes are as follows:

- 2015 International Building Code w/ WA Amendments
- 2015 International Residential Code w/ WA Amendments
- 2015 International Mechanical Code w/ WA Amendments
- 2015 Uniform Plumbing Code w/ WA Amendments
- 2015 International Fuel Gas Code w/ WA Amendments
- ICC/ANSI A117.1-2009 Accessibility
- 2015 Washington State Energy Codes
- Washougal Municipal Code Title 17
- Washington State Water Conservation Code

The minimum design loads are as follows:

Ground Snow Load*	Wind	Seismic	Subject to Damage				Winter Design Temp	Ice Shield Req'd	Flood Hazards	Air Freezing Index	Mean Annual Temp	Soil Bearing Pressure
			Weather	Frost	Termite	Decay						
25 PSF	See Chart below	Residential: D1	Weather	Frost	Termite	Decay	Per WSEC	N/A	***	N/A	50°	1500# Unless Noted By Geo Engineer
		Commercial: **	Moderate	12" Min	Slight to Moderate	Slight to Moderate						

* Roof snow load shall be designed as a minimum 25 psf.

** All locations within the city are classified as Seismic Design Category D. Seismic design parameters for specific sites shall be determined based upon zip-code or latitude and longitude using the web tool developed by the United States Geologic Survey located at: <http://earthquake.usgs.gov/research/hazmaps/design/>

*** Based on FEMA maps of local area.

- For all structures within 1500 feet of the Columbia River, exposure "C" and shall be based on specific site location and conditions.
- Structures located inland and beyond 1500 feet of the Columbia shall be designed per Exposure "B".
- Cell towers shall be designed to meet TIA-222-G standards using the following 2 analyses: 105 mph 3 second gust without ice (Annex B Table using footnote 1.)

Wind Speed Table

3-Second Gust Wind Speeds for the City of Washougal, Washington for Use with the 2015 IBC (ASCE7-10)

Risk Occupancy Category (ASCE 7-10 Table 1.5.1) | 3-Second Gust Wind Speed (rounded to the nearest 5 mph)

Wind design speeds are coordinated with Risk Categories for structures, per 2015 IBC and ASCE 7-10

V-ASD = Nominal design wind speed

V-ULT = Ultimate design wind speed

- V-ASD = 105 mph (3 second gust)*

- V-ULT = 135 mph (3 second gust) for Risk Category II

Wind exposure and additional requirements as noted in IBC.

- ❖ Wind speed for IRC Prescriptive only. Not to be used for Engineered Design with ASCE 7-10