

## Oregon Design Criteria Hub

The Oregon Design Criteria Hub is an interactive mapping tool that provides site-specific climatic and geographic design criteria for construction projects permitted using the **Oregon Residential Specialty Code (ORSC)** and the **Oregon Structural Specialty Code (OSSC)**.

For the **ORSC**, all of the following criteria is shown:

- Ground snow load
- Basic design wind speed
- Seismic Design Category
- Weathering potential
- Frost line depth
- Decay potential
- Air freezing index

For the **OSSC**, all of the following criteria is shown:

- Ground snow load
- Basic design wind speed
- Seismic ground motion values



The tool was developed by Oregon State University's (OSU) Oregon Explorer Program, which is a collaboration among OSU Libraries and Press (OSULP) and the Institute for Natural Resources (INR) at OSU.

## How to use the tool to generate a report

The first step is for the user to select the applicable building code. This is the code which the structure will be designed under and contains the construction requirements for the project.

The **ORSC** is typically used to design the following (including their accessory structures):

- Single family dwellings
- Two family dwellings
- Townhouses
- Attached stacked two family dwellings

The **OSSC** is used to design most other structures.



## For ORSC applicable structures

The tool generates the site-specific climatic and geographic design criteria output in accordance with Table R301.2 of the ORSC.

### Select Report Type

- Summary PDF Report (one-page summary)
- Full PDF Report (four-page report with more details about the site's seismic, snow and wind design criteria)

### Select Location

Identify the location by one of the three methods listed:

- Click or tap on the map
- Address Search
- Latitude/Longitude Search

The screenshot shows the 'Oregon Design Criteria Hub' interface. At the top, there is a navigation bar with 'Home', 'Layers', 'Legend', and 'Report' buttons. Below this is the 'Location Report' section. It includes a 'Select Report Type' section with two radio buttons: 'Summary PDF Report' (selected) and 'Full PDF Report'. Below that is a 'Select Location' section with the instruction 'Select a location by any of the following ways:'. It lists three methods: 1. Click or tap on the map (with a note that a popup will display the option to get a report), 2. Address Search (with a text input field containing 'Start typing a value'), and 3. Latitude/Longitude Search (with a text input field containing 'Lat/Lon: 44.59564N 123.41766W').

Once the report has been generated, an “Overview” will appear.

### Overview

Click on any of the specific design criteria tabs to see more details on each specific output:

- Seismic
- Snow
- Wind

To view the report, select the red “PDF Report” button

PDF Report

The screenshot shows the 'Design Criteria Hub Report ORSC 2023' interface. At the top, there is a 'PDF Report' button. Below this is the 'Report Sections' section with a 'Show All' checkbox and four tabs: 'Overview' (selected), 'Seismic', 'Snow', and 'Wind'. Below the tabs is the 'Overview' section. It includes the address '1535 Edgewater St NW, Salem, Oregon, 97304', the latitude/longitude '44.9385 -123.0641', and the title 'Site-Specific Climatic and Geographic Design Criteria'. Below this is a table of design criteria:

Design Criteria	Value
County	Polk County
Ground Snow Load	10 psf
Code minimum Ground Snow Load for prescriptive design	36 psf
Basic Design Wind Speed	97 mph
Seismic Design Category	D <sub>1</sub>
Weathering Potential	Moderate
Frost line depth	12 inches
Decay Potential	Moderate
Air Freezing Index	< 1,500

## For OSSC applicable structures

The tool generates the site-specific climatic and geographic design criteria output based on the risk category and the site soil class of the site location.

### Select Risk Category and Site Soil Class

- Risk Category (I, II, III, or IV)  
(See OSSC Table 1604.5)
- Site Soil Class  
(Where a soils report is not provided which indicates the site soil class, select the soils class as “D-Default.”)

### Select Location

Identify the location by one of the three methods listed:

- Click or tap on the map
- Address Search
- Latitude/Longitude Search

The screenshot shows the Oregon Design Criteria Hub interface. At the top, there is a navigation bar with 'Home', 'Layers', and 'Legend' buttons. Below this is the 'Location Report' section. It features two dropdown menus: 'Risk Category' (set to 'II') and 'Site Soil Class' (set to 'A - Hard Rock'). Underneath, there is a 'Select Location:' section with instructions: 'Select a location by any of the following ways:'. Three methods are listed: 1. Click or tap on the map (with a note: 'A popup will display the option to get a report.'), 2. Address Search (with a text input field containing 'Start typing a value'), and 3. Latitude/Longitude Search (with a text input field containing 'Lat/Lon: 44.59564N 123.41766W').

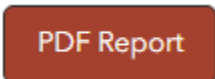
Once the report has been generated, an “Overview” will appear.

### Overview

Click on any of the specific design criteria tabs to see more details on each specific output:

- Seismic
- Snow
- Wind

To view the report, select the red “PDF Report” button



The screenshot shows the 'Design Criteria Hub Report OSSC 2022' interface. At the top, there is a 'PDF Report' button. Below this is a 'Report Sections' section with a 'Show All' checkbox and four tabs: 'Overview' (selected), 'Seismic', 'Snow', and 'Wind'. The 'Overview' section displays the following information: '1535 Edgewater St NW, Salem, Oregon, 97304', 'Latitude / Longitude: 44.9385 -123.0641', and 'Site-Specific Climatic and Geographic Design Criteria'. A table below lists the design criteria:

Risk Category	II
Site Soil Class	D - Default
County	Polk County
Ground Snow Load	10 psf
Basic Design Wind Speed	① 97 mph ②
Seismic Design Category	SEE NOTE (Seismic Section)