State of Oregon
Building Codes Division

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Statewide Alternate Method No. OSSC 08-01

(Ref.: ORS 455.060)

Issued May 7, 2008

SNOW LOAD METHODOLOGY

Oregon Structural Specialty Code, Section 1603.1.3

Statewide Alternate Methods *are approved by the Division administrator in consultation with the appropriate advisory board. The advisory board's review is limited to the technical and scientific merits of the proposal. In addition:*

- *building officials shall approve the use of any material, design or method of construction addressed in a statewide alternate method,*
- *the decision to use a statewide alternate method is at the discretion of the designer,*
- *statewide alternate methods do not limit the authority of the building official to consider other proposed alternate methods encompassing the same subject matter*

Requested by: Oregon Building Codes Division

Purpose:

To allow the ground snow load to be determined in accordance with the ***Snow Load Analysis for Oregon*** published by the Structural Engineers Association of Oregon, ***October 2007***, as an alternate method to the ground snow load provided in SEAO's ***Snow Load Analysis for Oregon***, ***June 1971***.

Background:

Section 1603.1.3 of the Oregon Structural Specialty Code states that; "*The ground snow load, P_g, as provided in Snow Load Analysis for Oregon published by the Structural Engineers Association of Oregon, **June 1971**, shall be indicated.*" (emphasis added).

Recently, the Structural Engineers Association of Oregon (SEAO) in consultation with Oregon State University, United States Soil Conservation Service and the State Engineer of Oregon, developed an updated "***Snow Load Analysis for Oregon"*** dated; October 2007.

This new publication takes advantage of modern environmental data collection through a remote data collection system known as SNOTEL as managed by the Natural Resources Conservation Services (NRSC). Each site is comprised of a data collection

system that records temperature, precipitation, snow depth and snow water equivalent as well as other variables every 15 minutes.

This data is then over-laid on a mapping system know as PRISM (Parameter-elevation Regressions on Independent Slopes Model) to create the snow load map included in the manual. Prism was developed by Oregon State University as a hybrid statistical geographic approach to mapping climatic parameters. The snow load map was generated specifically for SEAO utilizing the capacity of PRISM and included all available snow load data for the state of Oregon.

For further technical information, please see attached SUPPLEMENT.

The scientific and technical merits of this alternate method have been reviewed by the Building Codes Structures Board.

Applicable Code Citation:

2007 Oregon Structural Specialty Code, section 1603.1.3

Statewide Alternate Method:

The ground snow load, P_g, as provided in ***Snow Load Analysis for Oregon*** published by SEAO, ***October 2007***, may be used as an alternate method to the ground snow load, P_g, provided in SEAO's ***Snow Load Analysis for Oregon***, ***June 1971***.

The following sections of the ***Snow Load Analysis for Oregon - October 2007*** are adopted:

1. The Oregon map contained in the manual
2. Part I, section; "USE OF MAP"
3. Part II, section; "MINIMUM ROOF SNOW LOAD"
4. Part II, section; "RAIN-ON-SNOW SURCHARGE"

NOTE: The remainder of the "Snow Load Analysis for Oregon – October 2007" contains various illustrations, commentary and "best practice" design considerations. Only the four items noted above are specifically adopted by this ruling.

The recommendation and findings of the Building Codes Structures Board are accepted and are adopted:

_____ May 7, 2008

Mark Long, Administrator Date
Building Codes Division