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BULLETIN NO.

94-8

Date: **March 1995** Subject: **Ground Snow Loads**  
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Reference: **N.J.A.C. 5:23-3.14 Building Subcode Section 1608, Figure 1608.2 and Table 1604.5; N.J.A.C. 5:23-3.21 One- and Two-Family Dwelling Subcode Section R301.2.3, Table R301.2(1) and Figure R301.2(5)**

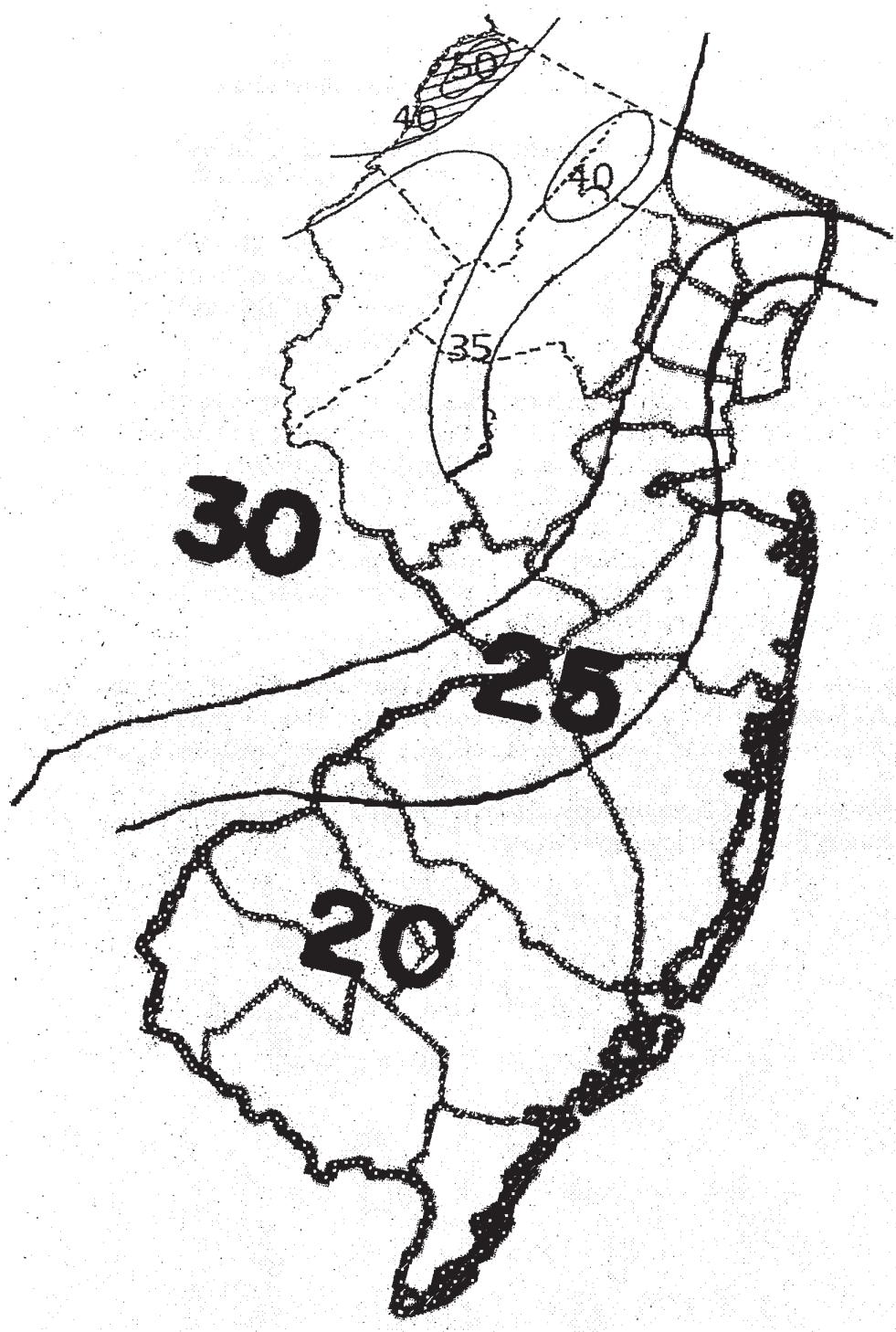
In order to allow easier reading of the isolines on the Ground Snow Loads map in the International Building Code (IBC) for the eastern United States, the New Jersey portion is shown at a greatly enlarged scale within this bulletin. In addition, the northwest corner of the State, shown as CS (site-specific) in the IBC (see Section 1608) and International Residential Code (IRC) (see Section R301), has been provided with specific isolines generated by research at the United States Army Corps of Engineers Cold Regions Research and Engineering Laboratory. Officials having jurisdiction in those northwestern areas may refer to these isolines for ground snow loads when determining local requirements.

To arrive at the design snow load for a structure designed to comply with the IBC, all applicable factors provided in IBC Section 1608, the applicable risk category per building/structure in IBC Table 1604.5 and the applicable importance factor in Table 1.5-2 of ASCE-7 (combined tables provided within) must be applied to the local ground snow load in pounds per square foot.

The IRC uses the ground snow load from the map shown, together with the appropriate tables from the IRC, to design the structure.

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(psf)

Table 1604.5 OCCUPANCY CATEGORY OF BUILDINGS AND OTHER STRUCTURES		TABLE 1.5-2 SNOW LOAD IMPORTANCE FACTOR
OCCUPANCY CATEGORY	NATURE OF OCCUPANCY	
I	Buildings and other structures that represent a low hazard to human life in the event of failure, including but not limited to: <ul style="list-style-type: none"> <li>• Agricultural facilities.</li> <li>• Certain temporary facilities.</li> <li>• Minor storage facilities.</li> </ul>	0.80
II	Buildings and other structures except those listed in Occupancy Categories I, III and IV	1.00
III	Buildings and other structures that represent a substantial hazard to human life in the event of failure, including but not limited to: <ul style="list-style-type: none"> <li>• Buildings and other structures whose primary occupancy is public assembly with an occupant load greater than 300.</li> <li>• Buildings and other structures containing Group E occupancies with an occupant load greater than 250.</li> <li>• Buildings and other structures containing educational occupancies for students above the 12th grade with an occupant load greater than 500.</li> <li>• Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities.</li> <li>• Group I-3 occupancies.</li> <li>• Any other occupancy with an occupant load greater than 5,000. (see note a)</li> <li>• Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities and other public utility facilities not included in Risk Category IV.</li> <li>• Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(1) or 307.1(2) or per outdoor control area in accordance with the International Fire Code; and Are sufficient to pose a threat to the public if released. (see note b)</li> </ul>	1.10
IV	Buildings and other structures designated as essential facilities, including but not limited to: <ul style="list-style-type: none"> <li>• Group I-2 occupancies having surgery or emergency treatment facilities.</li> <li>• Fire, rescue, ambulance and police stations and emergency vehicle garages.</li> <li>• Designated earthquake, hurricane or other emergency shelters.</li> <li>• Designated emergency preparedness, communications and operations centers and other facilities required for emergency response.</li> <li>• Power-generating stations and other public utility facilities required as emergency backup facilities for Risk Category IV structures.</li> <li>• Buildings and other structures containing quantities of highly toxic materials that: Exceed maximum allowable quantities per control area as given in Table 307.1(2) or per outdoor control area in accordance with the International Fire Code; and Are sufficient to pose a threat to the public if released. (see note b)</li> <li>• Aviation control towers, air traffic control centers and emergency aircraft hangars.</li> <li>• Buildings and other structures having critical national defense functions.</li> <li>• Water storage facilities and pump structures required to maintain water pressure for fire suppression.</li> </ul>	1.20
a. For purposes of occupant load calculation, occupancies required by Table 1004.1.2 to use gross floor area calculations shall be permitted to use net floor areas to determine the total occupant load.		
b. Where approved by the building official, the classification of buildings and other structures as Risk Category III or IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by a hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive materials is not sufficient to pose a threat to the public.		

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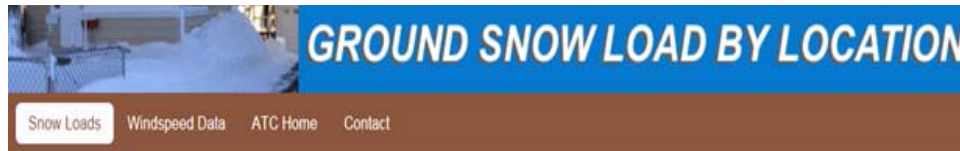
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The Applied Technology Council (ATC) provides a web-based application to determine snow loads. If you would like to take advantage of this application, please visit <http://snowload.atcouncil.org/>. This application uses the design snow load for a structure to be built as per Section 1608 of the IBC and Section R301.2.3 of the IRC, as applicable. To find the ground snow load for a specific area, select one of the following methods:

1. Click the radio button for decimal and enter latitude and longitude in the spaces in decimal form and select “Get Ground Snow Load” or
2. Click the radio button for address and enter the desired address and select “Get Ground Snow Load” or

- Click the radio button for decimal, find the site on the map given at the bottom of the webpage and the latitude and longitude will be displayed in decimals. Copy these values into the Decimal boxes near the top of the page and select "Get Ground Snow Load".

For those areas designated as CS, please use the map to determine snow loads.



### Ground Snow Load Website Information

The purpose of the "Ground Snow Load Web Site" is to provide users with a site-specific ground snow loads that are used in the determination of design snow loads for buildings and other structures. On this website, users can obtain ground snow loads compatible with ASCE 7-10, ASCE 7-05, and ASCE 7-93. The users are cautioned to use the ground snow load that is compatible with the appropriate version of ASCE 7. It is assumed that the users of this site have competency to understand how to calculate and apply design snow load to structural models of buildings or other structures.

The reason this utility is needed is that the spatial resolution of the ground snow load map that is printed in ASCE 7 are not sufficient to determine a site-specific ground snow load. There are no reference cities or towns on the ground snow load map and while county boundaries are shown, the resolution is affected when the maps are expanded large enough to distinguish the boundaries and approximate the city locations.

Decimal (Enter Decimal Value)

Latitude  Longitude

Address (Enter Complete Address Below)

Address  X

Alaska

### Search Result

Maps produces with ASCE 7-10  
 Query Date: July 10, 2015  
 Address: 101 South Broad Street Trenton NJ 08625  
 Latitude: 40.218798  
 Longitude: -74.764752  
 Elevation: 30.2 Feet

Ground Snow Load is Any elevation: 25 psf

