

Chapter 3

Table R301.2(1)

Climatic and Geographic Design Criteria

GROUND SNOW LOAD	WIND DESIGN		SEISMIC DESIGN CATEGORY <sup>f</sup>	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP <sup>e</sup>	ICE BARRIER UNDERLAYMENT REQUIRED <sup>h</sup>	FLOOD HAZARDS <sup>g</sup>	AIR FREEZING INDEX <sup>i</sup>	MEAN ANNUAL TEMP <sup>j</sup>
	SPEED <sup>d</sup> (mph)	TOPOGRAPHIC EFFECTS <sup>k</sup>		WEATHERING <sup>a</sup>	FROST LINE DEPTH <sup>b</sup>	TERMITE <sup>c</sup>					
30	115	No	B	Severe	42"	Very Heavy	10	Yes	Yes	1500 or less	50

Manual J Design Criteria<sup>o</sup>

Elevation	Latitude	Winter Heating	Summer Cooling	Altitude Correction Factor	Indoor Design Temperature	Design Temperature Cooling	Heating Temperature Difference
292	41° 8' 11"	12	87	None	72	75	60
Cooling Temperature Difference	Wind Velocity Heating	Wind Velocity Cooling	Coincident Wet Bulb	Daily Range	Winter Humidity	Summer Humidity	
121	-	-	72	M	-	-	-

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

- A. Where weathering requires a higher strength concrete or grade of masonry than necessary to satisfy the structural requirements of this code, the frost line depth strength required for weathering shall govern. The weathering column shall be filled in with the weathering index, "negligible," "moderate" or "severe" for concrete as determined from Figure R301.2(4). The grade of masonry units shall be determined from ASTM C34, C55, C62, C73, C90, C129, C145, C216 or C652.
- B. Where the frost line depth requires deeper footings than indicated in Figure R403.1(1), the frost line depth strength required for weathering shall govern. The jurisdiction shall fill in the frost line depth column with the minimum depth of footing below finish grade.
- C. The jurisdiction shall fill in this part of the table to indicate the need for protection depending on whether there has been a history of local subterranean termite damage.
- D. The jurisdiction shall fill in this part of the table with the wind speed from the basic wind speed map [Figure R301.2(5)A]. Wind exposure category shall be determined on a site-specific basis in accordance with Section R301.2.1.4.
- E. The outdoor design dry-bulb temperature shall be selected from the columns of 97<sup>1</sup>/<sub>2</sub>-percent values for winter from Appendix D of the Plumbing Code of New York State. Deviations from the Appendix D temperatures shall be permitted to reflect local climates or local weather experience as determined by the building official. [Also see Figure R301.2(1).]
- F. The jurisdiction shall fill in this part of the table with the seismic design category determined from Section R301.2.2.1.
- G. [NY] To establish flood hazard areas, each community regulated under Title 19, Part 1203 of the Official Compilation of Codes, Rules and Regulations of the State of New York (NYCRR) shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, special flood hazard areas as identified by the Federal Emergency Management Agency in the Flood Insurance Study for the community, as amended or revised with:
  - i. The accompanying Flood Insurance Rate Map (FIRM),
  - ii. Flood Boundary and Floodway Map (FBFM), and
  - iii. Related supporting data along with any revisions thereto.

The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

- H. In accordance with Sections R905.1.2, R905.4.3.1, R905.5.3.1, R905.6.3.1, R905.7.3.1 and R905.8.3.1, where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall fill in this part of the table with "NO."

- I. The jurisdiction shall fill in this part of the table with the 100-year return period air freezing index (BF-days) from Figure R403.3(2) or from the 100-year (99 percent) value on the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)."
- J. The jurisdiction shall fill in this part of the table with the mean annual temperature from the National Climatic Data Center data table "Air Freezing Index-USA Method (Base 32°F)."
- K. In accordance with Section R301.2.1.5, where there is local historical data documenting structural damage to buildings due to topographic wind speed-up effects, the jurisdiction shall fill in this part of the table with "YES." Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- L. In accordance with Figure R301.2(5)A, where there is local historical data documenting unusual wind conditions, the jurisdiction shall fill in this part of the table with "YES" and identify any specific requirements. Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- M. In accordance with Section R301.2.1.2 the jurisdiction shall indicate the wind-borne debris wind zone(s). Otherwise, the jurisdiction shall indicate "NO" in this part of the table.
- N. The jurisdiction shall fill in these sections of the table to establish the design criteria using Table 1a or 1b from ACCA Manual J or established criteria determined by the jurisdiction.
- O. [NY] The ground snow loads to be used in determining the design snow loads for roofs are given in Figure R301.2(6) for sites at elevations up to 1,000 feet. Sites at elevations above 1,000 feet shall have their ground snow load increased from the mapped value by 2 psf for every 1,000 feet above 1,000 feet.