

TOWN OF SMITHTOWN

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD ^o	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP ^e	ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^d (mph)	Topographic effects ^k	Special wind region ^l	Windborne debris zone ^m		Weathering ^a	Frost line depth ^b	Termite ^c					
20	130	NO	NO	1 mile from the coast	B	SEVERE	36"	HEAVY	15°	YES	Insert flood zone or N/A	452	52.7°

MANUAL J DESIGN CRITERIA

Elevation	Latitude	Winter heating	Summer cooling	Altitude correction factor	Indoor design temp.	Design temperature cooling	Heating temperature difference
98 ft.	40°	15°	85°	1	70	75°	55°
Cooling temperature difference	Wind velocity heating	Wind velocity cooling	Coincident wet bulb	Daily range	Winter humidity	Summer Humidity	
15°	15 MPH	7.5 MPH	72°	Medium	45-55%	32 GR@50%RH	

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 97¹/₂-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.
- h. 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
- 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
- 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
- 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.
- 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