

**1611.2 Ponding instability.** For roofs with a slope less than  $\frac{1}{4}$  inch per foot [1.19 degrees (0.0208 rad)], the design calculations shall include verification of adequate stiffness to preclude progressive deflection in accordance with Section 8.4 of ASCE 7.

**1611.3 Controlled drainage.** Roofs equipped with hardware to control the rate of drainage shall be equipped with a secondary drainage system at a higher elevation that limits accumulation of water on the roof above that elevation. Such roofs shall be designed to sustain the load of rainwater that will accumulate on them to the elevation of the secondary drainage system plus the uniform load caused by water that rises above the inlet of the secondary drainage system at its design flow determined from Section 1611.1. Such roofs shall also be checked for ponding instability in accordance with Section 1611.2.

## **SECTION 1612 FLOOD LOADS**

**1612.1 General.** Within *flood hazard areas* as established in Section 1612.3, all new construction of buildings, structures and portions of buildings and structures, including substantial improvement and restoration of substantial damage to buildings and structures, shall be designed and constructed to resist the effects of flood hazards and flood loads. For buildings that are located in more than one *flood hazard area*, the provisions associated with the most restrictive *flood hazard area* shall apply.

**1612.2 Definitions.** The following words and terms shall, for the purposes of this section, have the meanings shown herein.

**BASE FLOOD.** The flood having a 1-percent chance of being equaled or exceeded in any given year.

**BASE FLOOD ELEVATION.** The elevation of the *base flood*, including wave height, relative to a datum specified in the community flood hazard map.

**BASEMENT.** The portion of a building having its floor subgrade (below ground level) on all sides.

This definition of "Basement" is limited in application to the provisions of Section 1612 (see "Basement" in Section 502.1).

**DESIGN FLOOD.** The flood associated with the greater of the following two areas:

1. Area with a flood plain subject to a 1-percent or greater chance of flooding in any year; or
2. Area designated as a *flood hazard area* on a community's flood hazard map, or otherwise