

TABLE 16-C—MINIMUM ROOF LIVE LOADS¹

ROOF SLOPE	METHOD 1				METHOD 2		
	Tributary Loaded Area in Square Feet for Any Structural Member				Uniform Load ² (psf)	Rate of Reduction <i>r</i> (percentage)	Maximum Reduction <i>R</i> (percentage)
	× 0.0929 for m ²						
	0 to 200	201 to 600	Over 600				
	Uniform Load (psf)						
	× 0.0479 for kN/m ²						
1. Flat ³ or rise less than 4 units vertical in 12 units horizontal (33.3% slope). Arch or dome with rise less than one eighth of span	20	16	12	20	.08	40	
2. Rise 4 units vertical to less than 12 units vertical in 12 units horizontal (33% to less than 100% slope). Arch or dome with rise one eighth of span to less than three eighths of span	16	14	12	16	.06	25	
3. Rise 12 units vertical in 12 units horizontal (100% slope) and greater. Arch or dome with rise three eighths of span or greater	12	12	12	12	No reductions permitted		
4. Awnings except cloth covered ⁴	5	5	5	5			
5. Greenhouses, lath houses and agricultural buildings ⁵	10	10	10	10			

¹Where snow loads occur, the roof structure shall be designed for such loads as determined by the building official. See Section 1614. For special-purpose roofs, see Section 1607.4.4.

²See Sections 1607.5 and 1607.6 for live load reductions. The rate of reduction *r* in Section 1607.5 Formula (7-1) shall be as indicated in the table. The maximum reduction *R* shall not exceed the value indicated in the table.

³A flat roof is any roof with a slope of less than 1/4 unit vertical in 12 units horizontal (2% slope). The live load for flat roofs is in addition to the ponding load required by Section 1611.7.

⁴As defined in Section 3206.

⁵See Section 1607.4.4 for concentrated load requirements for greenhouse roof members.

TABLE 16-D—MAXIMUM ALLOWABLE DEFLECTION FOR STRUCTURAL MEMBERS¹

TYPE OF MEMBER	MEMBER LOADED WITH LIVE LOAD ONLY (<i>L</i>)	MEMBER LOADED WITH LIVE LOAD PLUS DEAD LOAD (<i>L</i> + <i>K</i> <i>D</i>)
Roof member supporting plaster or floor member	$l/360$	$l/240$

¹Sufficient slope or camber shall be provided for flat roofs in accordance with Section 1611.7.

L—live load.

D—dead load.

K—factor as determined by Table 16-E.

l—length of member in same units as deflection.

TABLE 16-E—VALUE OF "K"

WOOD		REINFORCED CONCRETE ²	STEEL
Unseasoned	Seasoned ¹		
1.0	0.5	$T/(1+50p')$	0

¹Seasoned lumber is lumber having a moisture content of less than 16 percent at time of installation and used under dry conditions of use such as in covered structures.

²See also Section 1909 for definitions and other requirements.

p' shall be the value at midspan for simple and continuous spans, and at support for cantilevers. Time-dependent factor *T* for sustained loads may be taken equal to:

five years or more	2.0
twelve months	1.2
six months	1.4
three months	1.0