

**Table 9.4.3.1.
Maximum Deflections**

Forming Part of Sentence 9.4.3.1.(1)

Item	Column 1	Column 2	Column 3
	Structural Members	Type of Ceiling Supported	Max. Allowable Deflection as an Expressed Ratio of the Clear Span
1.	Roof rafters, roof joists and roof beams	No ceiling	1/180
		Other than plaster or gypsum board	1/240
		Plaster or gypsum board	1/360
2.	Ceiling joists	Other than plaster or gypsum board	1/240
		Plaster or gypsum board	1/360
3.	Floor beams, floor joists and floor decking	All cases	1/360
4.	Beams, joists and decking for balconies, decks and other accessible exterior platforms	Serving a single <i>dwelling unit</i>	1/240
		Other	1/360

9.4.4. Foundation Conditions

9.4.4.1. Allowable Bearing Pressures

- (1) Footing sizes for *shallow foundations* shall be,
- (a) determined in accordance with Section 9.15., or
 - (b) designed in accordance with Section 4.2. using,
 - (i) the maximum *allowable bearing pressures* in Table 9.4.4.1., or
 - (ii) *allowable bearing pressures* determined from *subsurface investigation*.

**Table 9.4.4.1.
Allowable Bearing Pressure for Soil or Rock**

Forming Part of Sentence 9.4.4.1.(1)

Item	Column 1	Column 2
	Type and Condition of Soil or Rock	Maximum Allowable Bearing Pressure, kPa
1.	Dense or compact sand or gravel	150
2.	Loose sand or gravel	50
3.	Dense or compact silt	100
4.	Stiff clay	150
5.	Firm clay	75
6.	Soft clay	40
7.	Till	200
8.	Clay shale	300
9.	Sound rock	500

(2) The design procedures described in Section 4.2. are permitted to be used in lieu of the design procedures in this Subsection.

(3) The design procedures described in Section 4.2. shall be used where,

- (a) *deep foundations* are used,
- (b) the footing size falls outside the scope of this Section, or
- (c) the *foundation* is constructed on peat, filled ground or on sensitive clays as described in Article 9.15.1.1.

9.4.4.2. Foundation Capacity in Weaker Soil and Rock

(1) Where a *soil* or *rock* within a distance equal to twice the footing width below the *bearing surface* has a lower *allowable bearing pressure* than that at the *bearing surface* as shown in Article 9.4.4.1., the design capacity of the *foundation* shall not be greater than would cause the weakest *soil* or *rock* to be stressed beyond its *allowable bearing pressure*.

(2) In calculating subsurface pressures referred to in Sentence (1), the loads from the footings shall be assumed to be distributed uniformly over a horizontal plane within a frustum extending downward from the footing at an angle of 60° to the horizontal.

9.4.4.3. High Water Table

(1) Where a *foundation* bears on gravel, sand or silt, and the water table is within a distance below the *bearing surface* equal to the width of the *foundation*, the *allowable bearing pressure* shall be 50% of that determined in Article 9.4.4.1.

9.4.4.4. Soil Movement

(1) Where a *foundation* is located in an area where *soil* movement caused by changes in *soil* moisture content, freezing, or chemical-microbiological oxidation is known to occur to the extent that it will damage a *building*, measures shall be taken to preclude such movement or to reduce the