

CODE

6.5.3 Moments calculated in accordance with 6.5.2 shall not be redistributed.

6.5.4 V_u due to gravity loads shall be calculated in accordance with Table 6.5.4.

Table 6.5.4—Approximate shears for nonprestressed continuous beams and one-way slabs

Location	V_u
Exterior face of first interior support	$1.15w_u\ell_n/2$
Face of all other supports	$w_u\ell_n/2$

6.5.5 Floor or roof level moments shall be resisted by distributing the moment between columns immediately above and below the given floor in proportion to the relative column stiffnesses considering conditions of restraint.

6.6—Linear elastic first-order analysis

6.6.1 General

6.6.1.1 Slenderness effects shall be considered in accordance with 6.6.4, unless they are allowed to be neglected by 6.2.5.1.

6.6.1.2 Redistribution of moments calculated by an elastic first-order analysis shall be permitted in accordance with 6.6.5.

6.6.2 Modeling of members and structural systems

6.6.2.1 Floor or roof level moments shall be resisted by distributing the moment between columns immediately above and below the given floor in proportion to the relative column stiffnesses and considering conditions of restraint.

6.6.2.2 For frames or continuous construction, consideration shall be given to the effect of floor and roof load patterns on transfer of moment to exterior and interior columns, and of eccentric loading due to other causes.

6.6.2.3 It shall be permitted to simplify the analysis model by the assumptions of (a), (b), or both:

(a) Solid slabs or one-way joist systems built integrally with supports, with clear spans not more than 3 m, shall be permitted to be analyzed as continuous members on knife-edge supports with spans equal to the clear spans of the member and width of support beams otherwise neglected.

COMMENTARY

R6.5.5 This section is provided to make certain that moments are included in column design. The moment refers to the difference between the end moments of the members framing into the column and exerted at the column centerline.

R6.6—Linear elastic first-order analysis

R6.6.1 General

R6.6.1.1 When using linear elastic first-order analysis, slenderness effects are calculated using the moment magnifier approach (MacGregor et al. 1970; MacGregor 1993; Ford et al. 1981).

R6.6.2 Modeling of members and structural systems

R6.6.2.1 This section is provided to make certain that moments are included in column design if members have been proportioned using 6.5.1 and 6.5.2. The moment refers to the difference between the end moments of the members framing into the column and exerted at the column centerline.

R6.6.2.3 A common feature of modern frame analysis software is the assumption of rigid connections. Section 6.6.2.3(b) is intended to apply to intersecting elements in frames, such as beam-column joints.