



DSA Structural Amendments under review are highlighted in GRAY

Template 19-37

2001 CBC - Chapter 19A
CONCRETE

Section - 1918A - PRESTRESSED CONCRETE

Subsection(s) - 1918A.2.3 - 1918A.2.7

1 1918A.2 General.

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4 1918A.2.3 Stress concentrations.

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6 1918A.2.3.1 [For DSA/SS] Stress concentrations due to pre-
7 stressing shall be considered in design. *For prestressed concrete*
8 *members with recessed or dapped ends, an analysis of the connec-*
9 *tions shall be made in accordance with procedures given in Part 6*
10 *of the PCI Design Handbook, 3rd Edition.*

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14 1918A.2.4 Effects on adjoining construction.

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16 1918A.2.4.1 [For DSA/SS] Provisions shall be made for effects
17 on adjoining construction of elastic and plastic deformations, de-
18 flections, changes in length and rotations due to prestressing. Ef-
19 fects of temperature and shrinkage shall also be included. *Where*
20 *prestressed concrete elements are restrained from movement, an*
21 *analysis of the stresses in the prestressed elements and loads in the*
22 *adjoining structural system induced by the above-described ef-*
23 *fects shall be made in accordance with Part 3 of the PCI Design*
24 *Handbook, 3rd Edition.*

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27 1918A.2.5 Possibility of buckling in a member between points

28 where concrete and prestressing tendons are in contact and of
29 buckling in thin webs and flanges shall be considered.

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31 **1918A.2.6** In computing section properties prior to bonding of
32 prestressing tendons, effect of loss of area due to open ducts shall
33 be considered.

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35 *1918A.2.7 Span depth ratios for prestressed concrete members*
36 *shall not exceed the following, except when calculations of deflec-*
37 *tions prove that greater values may be used without adverse*
38 *effects:*

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40 *Beams 30*

41
42 *One-way Slabs 40*

43
44 *Two-way Floor Slabs 40*

45
46 *Two-way Roof Slabs 44*

47
48 *Flat Slabs See Section 1918A.21*

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50 *These ratios should be decreased for special conditions such as*
51 *heavy loads and simple spans.*

52
53 *Maximum deflection criteria shall be in accordance with Sec-*
54 *tion 1909A.5.*