

Transition Key

ACI 318-11 to ACI 318-14 and ACI 318.2-14
Building Code
Requirements for
Structural Concrete



American Concrete Institute
Always advancing

The following chart is a mapping of provisions from ACI 318-11 to ACI 318-14 and ACI 318.2-14. It is common that a provision may have been divided or repeated. The code was mostly rewritten in the process of the reorganization; thus, the exact wording and context will not be the same at the new location.

Also, the reorganization changed headings, introductions, scopes and pointers used in ACI 318-11 that no longer work in ACI 318-14. Technical changes occurred that have altered or deleted requirements. The following symbols are used in the Note column to more easily identify the type of change, if any:

‡ = Heading, scope statement, introduction, or pointer to another section

~ = Technical change

BLANK = Editorial or no change

Chapter 1 - GENERAL REQUIREMENTS

318-11	318-14	Note	Description
1.1	---	‡	Heading: Scope
	1.2.2		
1.1.1	1.2.5		
	1.2.7		
	19.2.1.1		
1.1.2	1.2.6		
1.1.3	1.5.8		
1.1.4	1.4.5		
1.1.5	1.4.2		
1.1.6	1.4.6		
	13.2.3.2		
1.1.7	1.4.7		
	13.2.4.1		
1.1.8	---	‡	Heading: Concrete on steel deck
1.1.8.1	1.4.4		
1.1.8.2	1.4.9		
1.1.9	---	‡	Heading: Provisions for earthquake resistance
1.1.9.1	4.4.6.1		
	5.2.2		
1.1.9.2	4.4.6.3		
	4.4.6.4		
1.1.10	1.4.8		
1.2	---	‡	Heading: Contract documents
1.2.1	1.8.1		
1.2.1(a)	26.2.1(a)		
1.2.1(b)	26.2.1(b)		
1.2.1(c)	26.4.2.1(c)		
	26.4.2.2(a)		
1.2.1(d)	26.6.1.1(a)		
	26.3.1(a)		
1.2.1(e)	26.6.1.1(b)		
	26.6.1.1(c)		
	26.10.1(c)		

Chapter 1 - GENERAL REQUIREMENTS

318-11	318-14	Note	Description
	26.7.1(b)		
1.2.1(f)	26.7.1(e)		
	26.7.1(g)		
1.2.1(g)	26.5.7.1(a)		
1.2.1(h)	26.10.1(a)		
1.2.1(i)	26.6.1.1(b)		
	26.6.1.1(d)		
1.2.1(j)	26.6.1.1(e)		
1.2.1(j)	26.6.1.1(g)		
1.2.1(k)	26.5.6.1(a)		
1.2.1(l)	26.4.2.2(a)		
1.2.1(m)	26.10.1(b)		
1.2.1(n)	26.5.7.1(b)		
1.2.2	1.8.2		
1.3	---	‡	Heading: Inspection
1.3.1	26.13.1.1		
	26.13.1.2		
1.3.2	26.13.1.3		
1.3.2(a)	26.13.2.2(c)		
	26.13.3.2(a)		
1.3.2(b)	26.13.3.3(c)		
1.3.2(c)	26.13.3.3(a)		
1.3.2(d)	26.13.2.2(c)		
	26.13.3.3(b)		
1.3.2(e)	26.13.3.3(d)		
1.3.2(f)	26.13.3.2(b)		
1.3.2(g)	26.13.2.2(b)		
1.3.2(h)	26.13.2.2(a)		
1.3.3	26.13.2.2(d)		
1.3.4	26.13.2.1		
1.3.5	26.13.1.4		
1.4	---	‡	Heading: Approval of special systems of design or construction
1.4	1.10.1		

Chapter 2 - NOTATION and TERMINOLOGY (Only the deleted or revised articles are shown)

318-11	318-14	Note	Description
2.1	2.2	‡	Heading: Code notation
A_2	A_2	~	Revised notation
f'_{cr}	---	~	Reference to ACI 301 replaced this notation
f_t	f_t	~	Revised notation
M_{slab}	M_{sc}	~	Revised notation
M_1	M_1	~	Changed sign convention
P_n	P_n	~	Added tensile strength requirements for concrete
$P_{n, max}$	$P_{n, max}$	~	Added tensile strength requirements for concrete
S_i	S_i	~	Revised notation for clarity
S_n	S_n	~	Revised notation
v_n	v_n	~	Revised notation for clarity
γ_f	γ_f	~	Revised notation
γ_v	γ_v	~	Revised notation
ψ_t	ψ_t	~	Revised notation
2.2	2.3	‡	Heading: Definitions
Anchorage device	Anchorage device	~	Revised reinforcement definitions
Bonded tendon	Bonded tendon	~	Revised reinforcement definitions
Column	Column	~	Revised definition for word used in code
Compression-controlled section	Compression-controlled section	~	Revised definition for clarity
Compression-controlled strain limit	---	~	Deleted definition
Crosstie	Crosstie 25.3.5		
Deformed reinforcement	Deformed reinforcement	~	Revised reinforcement definitions
Headed deformed bars	Headed deformed bars	~	Revised reinforcement definitions
Headed shear stud reinforcement	Headed shear stud reinforcement	~	Revised reinforcement definitions
Hoop	Hoop 25.7.4.1	~	Regulate the use of headed bars in hoops
Intermediate moment frame	Intermediate moment frame	~	Revised definitions to identify members
Moment frame	Moment frame	~	Revised definitions to identify members
Ordinary moment frame	Ordinary moment frame	~	Revised definitions to identify members

Chapter 2 - NOTATION and TERMINOLOGY (Only the deleted or revised articles are shown)

318-11	318-14	Note	Description
Plain reinforcement	Plain reinforcement	~	Revised reinforcement definitions
Post-tensioning	Post-tensioning	~	Revised reinforcement definitions
Prestressing reinforcement	Prestressing reinforcement	~	Revised reinforcement definitions
Pretensioning	Pretensioning	~	Revised reinforcement definitions
Reinforcement	Reinforcement	~	Revised reinforcement definitions
Seismic hook	Seismic hook 25.3.4		
Special moment frame	Special moment frame	~	Revised definitions to identify members
Tendon	Tendon	~	Revised reinforcement definitions
Unbonded tendon	Unbonded tendon	~	Revised reinforcement definitions
Welded wire reinforcement	Welded wire reinforcement	~	Revised reinforcement definitions

Chapter 3 - MATERIALS

318-11	318-14	Note	Description
3.1	---	‡	Heading: Tests of materials
3.1.1	1.6.3		
3.1.2	1.9.1		
3.1.3	26.13.2.1		
3.2	---	‡	Heading: Cementitious materials
3.2.1	26.4.1.1.1(a)		
3.2.2	26.4.3.1(c)		
3.3	---	‡	Heading: Aggregates
3.3.1	26.4.1.2.1(a)		
	26.4.1.2.1(b)		
3.3.2	25.2.1		
	25.2.3		
	25.2.4		
	25.2.5		
	25.7.2.1		
	25.7.3.1		
	26.4.2.1(a)(4)		
3.4	---	‡	Heading: Water
3.4.1	26.4.1.3.1(a)		
3.4.2	26.4.1.3.1(b)		
3.5	---	‡	Heading: Steel reinforcement
3.5.1	20.2.1.1		
	20.2.2.4		
	26.4.1.5.1(a)		
	26.5.7.1(e)		
3.5.2	26.6.1.1(g)		
	26.6.4.1(a)		
3.5.3	---	‡	Heading: Deformed reinforcement
3.5.3.1	20.2.1.3		
3.5.3.2	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
	26.6.1.2(a)		
3.5.3.3	20.2.1.3		
	20.2.2.4		
3.5.3.4	20.2.1.5		
3.5.3.5	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
	20.2.1.7		
	20.2.1.7.1		
	26.6.1.2(a)		
3.5.3.6	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
	20.2.1.7		
	20.2.1.7.3		
	26.6.1.2(a)		

Chapter 3 - MATERIALS

318-11	318-14	Note	Description
	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
	20.2.1.7		
3.5.3.7	20.2.1.7.2		
	20.2.1.7.3		
	26.6.1.2(a)		
3.5.3.8	20.6.2.1		
	20.6.2.2		
3.5.3.9	20.6.2.1		
	20.6.2.3		
	26.6.1.1(g)		
	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
	20.2.1.7		
3.5.3.10	20.6.2.1		
	25.4.6.6		
	25.5.3.1.3		
	26.6.1.2(a)		
	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
	20.2.1.7		
3.5.3.11	20.2.1.7.1		
	20.2.1.7.2		
	20.2.1.7.3		
	26.6.1.2(a)		
3.5.4	---	‡	Heading: Plain reinforcement
3.5.4.1	20.2.1.4		
	20.2.2.4		
	20.2.1.2	~	Revise to 0.2 percent offset method to define yield
3.5.4.2	20.2.1.7		
	20.2.2.4		
	26.6.1.2(a)		
3.5.5	---	‡	Heading: Headed shear stud reinforcement
3.5.5.1	20.5.1		
3.5.6	---	‡	Heading: Prestressing steel
3.5.6.1	20.3.1.1		
3.5.6.2	20.3.1.2		
3.5.7	---	‡	Heading: Structural steel, steel pipe, or tubing
3.5.7.1	20.4.1.1		
3.5.7.2	20.4.1.2		
3.5.8	26.4.1.5.1(a)		
3.5.9	20.2.1.6		
3.6	---	‡	Heading: Admixtures
3.6.1	26.4.1.4.1(a)		
3.6.2	26.4.1.4.1(a)		
3.6.3	26.4.1.4.1(b)		
3.6.4	26.4.1.4.1(c)		

Chapter 3 - MATERIALS

318-11	318-14	Note	Description
3.6.5	26.4.1.4.1(d)		
3.7	---	‡	Heading: Storage of materials
3.7.1	26.5.1.1(a)		
3.7.2	26.5.1.1(b)		
3.8	---	‡	Heading: Referenced standards
3.8.1	3.1.1		
3.8.1	3.2.4	~	Update ASTMs
3.8.2	3.1.1		
3.8.2	3.2.5		
3.8.3	3.1.1		
3.8.3	3.2.3		
3.8.4	3.1.1		
3.8.4	3.2.2		
3.8.5	3.1.1		
3.8.5	3.2.1	~	Update references in AASHTO
3.8.6	3.1.1		
3.8.6	3.2.2		
3.8.7	3.1.1		
3.8.7	3.2.2		
3.8.8	3.1.1		
3.8.8	3.2.5		
3.8.9	3.1.1		
3.8.9	3.2.2		
3.8.10	3.1.1		
3.8.10	3.2.2		

Chapter 4 - DURABILITY REQUIREMENTS

318-11	318-14	Note	Description
4.1	---	‡	Heading: General
	19.2.1.1		
4.1.1	26.4.1.1.1(b)		
	26.4.2.1(a)(3)		
4.1.2	19.3.2.1		
4.2	---	‡	Heading: Exposure categories and classes
4.2.1	19.3.1.1	~	Changing description of "F Conditions"
	26.4.2.1(b)		Changing "P" to "W"
Table 4.2.1	Table 19.3.1.1	~	Changing description of "F Conditions"
			Changing "P" to "W"
4.3	---	‡	Heading: Requirements for concrete mixtures
	19.3.2.1	~	Changing "P" to "W" and changing values of "F"
	26.4.2.1(a)(3)		Update of cement types
4.3.1	26.4.2.1(a)(6)		
	26.4.2.1(a)(7)		
	26.4.2.1(a)(8)		
Table 4.3.1	Table 19.3.2.1	~	Changing "P" to "W" and changing values of "F"
			Update of cement types
4.4	---	‡	Heading: Additional requirements for freezing-and-thawing exposure
4.4.1	19.3.3.1		
4.4.1	19.3.3.2	~	Clarify required air volume for air-entrained concrete
4.4.1	19.3.3.3		
4.4.1	26.4.2.1(a)(5)		
Table 4.4.1	Table 19.3.3.1		
4.4.2	19.3.3.4		
4.4.2	26.4.2.2(b)		
Table 4.4.2	Table 26.4.2.2b		
4.5	---	‡	Heading: Alternative cementitious materials for sulfate exposure
4.5.1	26.4.2.2(c)		
Table 4.5.1	Table 26.4.2.2c		

Chapter 5 - CONCRETE QUALITY, MIXING, AND PLACING

318-11	318-14	Note	Description
5.1	---	‡	Heading: General
5.1.1	19.2.1.1 19.2.1.2		
5.1.2	---	‡	Pointer to 5.6.3
5.1.3	19.2.1.3 26.4.2.1(a)(1) 26.4.2.1(a)(2)		
5.1.4	19.2.4.3		
5.1.5	---	~	Requirement no longer necessary
5.1.6	19.2.1.1 26.4.2.2(d) 26.4.2.2(d)(1)		
5.2	---	‡	Heading: Selection of concrete proportions
5.2.1	26.4.3.1(a)		
5.2.2	26.4.3.1(d)		
5.2.3	---	~	Remove statistical mix proportioning and reference ACI 301
5.3	---	‡	Heading: Proportioning on the basis of field experience or trial mixtures, or both
5.3	26.4.3.1(b)	~	Remove statistical mix proportioning and reference ACI 301
5.3.1	---	‡	Heading: Sample standard deviation
5.3.1.1	---	~	Remove statistical mix proportioning and ref. ACI 301 Clarify the length of time to keep records
5.3.1.2	---	~	Remove statistical mix proportioning and reference ACI 301
Table 5.3.1.2	---	~	Remove statistical mix proportioning and reference ACI 301
5.3.2	---	‡	Heading: Required average strength
5.3.2.1	---	~	Remove statistical mix proportioning and reference ACI 301
Table 5.3.2.1	---	~	Remove statistical mix proportioning and reference ACI 301
5.3.2.2	---	~	Remove statistical mix proportioning and reference ACI 301
Table 5.3.2.2	---	~	Remove statistical mix proportioning and reference ACI 301
5.3.3	---	‡	Heading: Documentation of average compressive strength
5.3.3	26.4.4.1(a)	~	Remove statistical mix proportioning and reference ACI 301
5.3.3.1	---	~	Remove statistical mix proportioning and reference ACI 301
5.3.3.2	---	~	Remove statistical mix proportioning and reference ACI 301
5.4	---	‡	Heading: Proportioning without field experience or trial mixtures
5.4.1	26.4.4.1(b)	~	Remove statistical mix proportioning and reference ACI 301
5.4.2	---	~	Remove statistical mix proportioning and reference ACI 301
5.5	---	‡	Heading: Average compressive strength reduction
5.5	26.4.4.1(c)	~	Remove statistical mix proportioning and reference ACI 301
5.6	---	‡	Heading: Evaluation and acceptance of concrete
5.6.1	26.12.1.1(b) 26.12.1.1(c) 26.12.1.1(d) 26.12.1.1(e)		

Chapter 5 - CONCRETE QUALITY, MIXING, AND PLACING

318-11	318-14	Note	Description
5.6.2	---	‡	Heading: Frequency of testing
5.6.2.1	26.12.2.1(a)		
5.6.2.2	26.12.2.1(b)		
5.6.2.3	26.12.2.1(c)		
5.6.2.4	26.12.1.1(a)		
5.6.3	---	‡	Heading: Standard-cured specimens
5.6.3.1	26.12.3.1(a)		
5.6.3.2	26.12.3.1(a)		
5.6.3.3	26.12.3.1(b)		
5.6.3.4	26.12.3.1(c)		
	26.12.3.1(d)		
5.6.4	---	‡	Heading: Field-cured specimens
5.6.4.1	26.5.3.2(d)		
5.6.4.2	26.5.3.2(d)(2)		
5.6.4.3	26.5.3.2(d)(1)		
5.6.4.4	26.5.3.2(e)		
	26.5.3.2(e)(1)		
	26.5.3.2(e)(2)		
5.6.5	---	‡	Heading: Investigation of low-strength test results
5.6.5.1	26.12.4.1(a)		
5.6.5.2	26.12.4.1(b)		
5.6.5.3	26.12.4.1(c)		
5.6.5.4	26.12.4.1(d)		
	26.12.4.1(e)		
5.6.5.5	26.12.4.1(f)		
5.6.6	---	‡	Heading: Steel fiber-reinforced concrete
5.6.6.1	26.12.5.1(a)(1)		
5.6.6.2	26.4.2.1(a)(11)		
	26.12.5.1(a)		
5.6.6.2(a)	26.4.2.2(d)(2)		
5.6.6.2(b)	26.12.5.1(a)(2)		
5.6.6.2(c)	26.12.5.1(a)(3)		
5.7	---	‡	Heading: Preparation of equipment and place of deposit
5.7.1	---	‡	Introduction to a list
5.7.1(a)	26.5.1.1(c)	~	Clarified that equipment shall be maintained by ASTM C94 or C685
5.7.1(b)	26.5.2.1(a)		
5.7.1(c)	26.11.1.1(a)		
5.7.1(d)	26.5.2.1(c)		
5.7.1(e)	26.6.1.2(d)		
5.7.1(f)	26.5.2.1(b)		
5.7.1(g)	26.5.6.2(d)		
5.8	---	‡	Heading: Mixing
5.8.1	---	~	Information repeated ASTM C94

Chapter 5 - CONCRETE QUALITY, MIXING, AND PLACING

318-11	318-14	Note	Description
5.8.2	26.5.1.1(d)		
5.8.3	---	~	Information repeated ASTM C94
5.9	---	‡	Heading: Conveying
5.9.1	26.5.2.1(f)(3)		
5.9.2	26.5.2.1(f)(1)		
5.9.2	26.5.2.1(f)(4)		
5.9.2	26.5.2.1(d)		
5.10	---	‡	Heading: Depositing
5.10.1	26.5.2.1(f)(5)		
5.10.2	26.5.2.1(f)(2)		
5.10.3	26.5.2.1(g)		
5.10.4	26.5.2.1(h)	~	Added reference to ASTM C94 for retempering
5.10.5	26.5.2.1(i)		
5.10.6	26.5.2.1(k)		
5.10.7	---	‡	Pointer to 6.4
5.10.8	26.5.2.1(j)		
5.11	---	‡	Heading: Curing
5.11.1	26.5.3.2(a)		
5.11.2	26.5.3.2(b)		
5.11.3	---	‡	Heading: Accelerated curing
5.11.3.1	26.5.3.2(c)		
5.11.3.2	26.5.3.2(c)(1)		
5.11.3.3	26.5.3.2(c)(2)		
5.11.4	26.5.3.1(a)		
	26.5.3.2(d)		
5.12	---	‡	Heading: Cold weather requirements
5.12.1	26.5.4.2(a)		
5.12.2	26.5.4.2(b)		
5.12.3	26.5.4.2(c)		
5.13	---	‡	Heading: Hot weather requirements
	26.5.5.1(a)		
5.13	26.5.5.2(a)		
	26.5.5.2(b)		

Chapter 6 - FORMWORK, EMBEDMENTS, AND CONSTRUCTION JOINTS

318-11	318-14	Note	Description
6.1	---	‡	Heading: Design of formwork
6.1	26.11.1.1(a)		
6.1.1	26.11.1.2(b)		
6.1.2	26.11.1.2(c)		
6.1.3	26.11.1.2(d)		
6.1.4	26.11.1.2(a)(4)		
	26.11.1.2(a)		
6.1.5	26.11.1.2(a)(1)		
	26.11.1.2(a)(2)		
	26.11.1.2(a)(3)		
6.1.6	26.11.1.2(a)(5)		
6.2	---	‡	Heading: Removal of forms, shores, and reshoring
6.2.1	---	‡	Heading: Removal of forms
6.2.1	26.11.2.1(f)		
	26.11.2.1(g)		
6.2.2	---	‡	Heading: Removal of shores and reshores
6.2.2.1	26.11.2.1(a)		
6.2.2.1(a)	26.11.2.1(b)		
6.2.2.1(b)	26.11.2.1(c)		
6.2.2.1(c)	26.11.2.1(d)		
	26.11.2.1(e)		
6.2.2.2	26.11.2.1(i)		
6.2.2.3	26.11.2.1(h)		
6.3	---	‡	Heading: Embedments in concrete
6.3.1	20.7.2		
	26.8.1(a)		
	26.8.2(a)		
6.3.2	20.7.3		
	26.5.2.1(e)		
	26.8.2(b)		
6.3.3	20.7.1		
6.3.4	---	~	Outdated embedment requirements
6.3.5	---	~	Outdated embedment requirements
6.3.5.1	---	~	Outdated embedment requirements
6.3.5.2	---	~	Outdated embedment requirements
6.3.5.3	20.7.1		
6.3.6	---	~	Outdated embedment requirements
6.3.6.1	---	~	Outdated embedment requirements
6.3.6.2	---	~	Outdated embedment requirements
6.3.6.3	---	~	Outdated embedment requirements
6.3.7	26.8.2(c)		
6.3.8	26.8.2(d)		
6.3.9	26.8.2(e)		

Chapter 6 - FORMWORK, EMBEDMENTS, AND CONSTRUCTION JOINTS

318-11	318-14	Note	Description
6.3.10	20.7.5 26.8.1(c)		
6.3.11	20.7.4 26.8.1(b)		
6.3.12	26.8.2(f)		
6.4	---	‡	Heading: Construction joints
6.4.1	26.5.6.2(d)		
6.4.2	26.5.6.2(f)		
6.4.3	26.5.6.1(b) 20.7.1		
6.4.4	26.5.6.2(b)		
6.4.5	26.5.6.2(c)		
6.4.6	26.5.7.2(a)		
6.4.7	26.5.7.2(b)		

Chapter 7 - DETAILS OF REINFORCEMENT

318-11	318-14	Note	Description
7.1	---	‡	Heading: Standard hooks
7.1	25.3.1		
7.1.1	25.3.1		
7.1.2	25.3.1		
7.1.3	25.3.2	~	Revised so that standard hooks meet seismic hook requirements
7.1.4	25.3.4		
7.2	---	‡	Heading: Minimum bend diameters
7.2.1	25.3.1		
7.2.2	25.3.2		
7.2.3	25.3.3		
7.3	---	‡	Heading: Bending
7.3.1	26.6.3.1(a)		
7.3.2	26.6.3.1(b)		
7.4	---	‡	Heading: Surface conditions of reinforcement
7.4.1	26.6.1.2(d)		
7.4.2	26.6.1.2(b)		
7.4.3	26.6.1.2(c)		
7.5	---	‡	Heading: Placing reinforcement
7.5.1	26.6.2.2(a) 26.10.2(b) 26.6.2.1(a)		
7.5.2	26.6.2.1(b) 26.10.1(d)		
7.5.2.1	26.6.2.1(a)		
7.5.2.2	26.6.2.1(b)		
7.5.3	7.7.3.7		
7.5.4	26.6.4.1(b)		
7.6	---	‡	Heading: Spacing limits for reinforcement
7.6.1	25.2.1		
7.6.2	25.2.2		
7.6.3	25.2.3		
7.6.4	25.5.1.2		
7.6.5	7.7.2.3 8.7.2.2 11.7.2.1 11.7.2.2		
7.6.6	---	‡	Heading: Bundled bars
7.6.6.1	25.6.1.1		
7.6.6.2	25.6.1.2		
7.6.6.3	25.6.1.3		
7.6.6.4	25.6.1.4		
7.6.6.5	25.6.1.6		
7.6.7	---	‡	Heading: Tendons and ducts

Chapter 7 - DETAILS OF REINFORCEMENT

318-11	318-14	Note	Description
	25.2.4		
7.6.7.1	25.2.5		
	25.2.6		
7.6.7.2	25.6.2.1		
7.7	---	‡	Heading: Concrete protection for reinforcement
	---	‡	Heading: Cast-in-place concrete (nonprestressed)
	20.6.1.1		
7.7.1	20.6.1.3.1		
	318.2-5.1		
	318.2-5.1.1		
	---	‡	Heading: Cast-in-place concrete (prestressed)
	20.6.1.1		
7.7.2	20.6.1.3.2		
	318.2-5.1		
	318.2-5.1.2		
	---	‡	Heading: Precast concrete (manufactured under plant conditions)
7.7.3	20.6.1.1		
	20.6.1.3.3		
	318.2-5.1		
	318.2-5.1.3		
7.7.4	---	‡	Heading: Bundled bars
7.7.4	20.6.1.3.4		
7.7.5	---	‡	Heading: Headed shear stud reinforcement
	20.6.1.3.5		
7.7.6	---	‡	Heading: Corrosive environments
7.7.6	20.6.1.4.1		
	318.2-5.1.4.1		
	20.6.1.4.2		
7.7.6.1	20.6.1.4.3		
	318.2-5.1.4.2		
	318.2-5.1.4.3		
	---	‡	Heading: Future extensions
7.7.7	26.6.1.1(i)		
	26.7.1(k)		
	26.8.1(d)		
7.7.8	---	‡	Heading: Fire protection
	4.11.2		
7.8	---	‡	Heading: Reinforcement details for columns
7.8.1	---	‡	Heading: Offset bars
7.8.1	---	‡	Introduction to section
7.8.1.1	10.7.4.1		
7.8.1.2	10.7.4.1		

Chapter 7 - DETAILS OF REINFORCEMENT

318-11	318-14	Note	Description
7.8.1.3	10.7.6.4.1 10.7.6.4.2		
7.8.1.4	26.6.3.1(c)		
7.8.1.5	10.7.4.2		
7.8.2	---	‡	Heading: Steel cores
7.8.2	---	‡	Introduction to section
7.8.2.1	10.7.5.3.2		
7.8.2.2	10.7.5.3.2		
7.8.2.3	---	‡	Pointer to 15.8
7.8.2.4	16.3.1.3		
7.9	---	‡	Heading: Connections
7.9.1	15.4.3		
7.9.2	15.4.3		
7.10	---	‡	Heading: Transverse reinforcement for compression members
7.10.1	10.7.6.1.5		
7.10.2	10.7.6.1.5		
7.10.3	10.7.6.1.5		
7.10.4	---	‡	Heading: Spirals
7.10.4.1	25.7.3.1 26.6.2.2(b)		
7.10.4.2	25.7.3.2		
7.10.4.3	25.7.3.1		
7.10.4.4	25.7.3.4		
7.10.4.5	25.7.3.5	~	Add fyt limit for lap splices
7.10.4.5	25.7.3.6		
7.10.4.6	10.7.6.3.1 10.7.6.3.2		
7.10.4.7	10.7.6.3.2		
7.10.4.8	10.7.6.3.2		
7.10.4.9	26.6.2.2(a)		
7.10.5	---	‡	Heading: Ties
7.10.5.1	9.7.6.4.2 25.6.1.2 25.7.2.2 25.7.2.2.1		
7.10.5.2	9.7.6.4.3 23.6.3.1 25.7.2.1		
7.10.5.3	9.7.6.4.4 23.6.3.3 25.7.2.3		
7.10.5.4	25.7.2.4 25.7.2.4.1		

Chapter 7 - DETAILS OF REINFORCEMENT

318-11	318-14	Note	Description
	10.7.6.2.1		
7.10.5.5	10.7.6.2.2		
	23.6.3.2		
7.10.5.6	10.7.6.2.2		
7.10.5.7	10.7.6.1.6		
7.11	---	‡	Heading: Transverse reinforcement for flexural members
	9.7.6.4.1		
7.11.1	9.7.6.4.2		
	9.7.6.4.3		
	9.7.6.3.1		
7.11.2	9.7.6.4.1		
	25.7.1.6.1		
	25.7.1.7		
7.11.3	25.7.1.6.1		
	25.7.1.7		
	25.7.2.3.1		
7.12	---	‡	Heading: Shrinkage and temperature reinforcement
7.12.1	24.4.1		
7.12.1.1	24.4.1		
7.12.1.2	24.4.2		
7.12.2	24.4.3.1		
	7.6.1.1		
7.12.2.1	8.6.1.1		
	24.4.3.2		
	7.7.6.2.1		
7.12.2.2	8.7.2.2		
	24.4.3.3		
7.12.2.3	24.4.3.4		
	25.4.10.2		
7.12.3	7.6.4.2		
	24.4.4.1		
7.12.3.1	24.4.4.1		
7.12.3.2	7.6.4.2.1		
7.12.3.3	7.6.4.2.2		
7.12.3.4	7.6.4.2.3		
	7.7.6.3.1		
7.12.3.5	7.7.6.3.2	~	Concrete area for S&T in prestressed
7.13	---	‡	Heading: Requirements for structural integrity
7.13.1	4.10.1.1		
7.13.2	---	‡	Introduction to section
	8.8.1.6		
7.13.2.1	9.8.1.6		
	25.4.10.2		

Chapter 7 - DETAILS OF REINFORCEMENT

318-11	318-14	Note	Description
	9.7.7.1(a)		
	9.7.7.1(b)		
7.13.2.2	9.7.7.3		
	9.7.7.4		
	25.4.10.2		
7.13.2.3	9.7.7.1(c)		
	25.7.1.6		
7.13.2.4	9.7.7.5		
	9.7.7.6		
	9.7.7.2		
	9.7.7.3		
7.13.2.5	9.7.7.4		
	9.7.7.5		
	9.7.7.6		
	25.4.10.2		
7.13.2.6	---	‡	Pointer to 13.3.8.5
7.13.2.7	---	‡	Pointer to 18.12.6 and 18.12.7
7.13.3	16.2.1.8		
7.13.4	---	‡	Pointer to 13.3.8.6 and 18.12.8

Chapter 8 - ANALYSIS AND DESIGN – GENERAL CONSIDERATIONS

318-11	318-14	Note	Description
8.1	---	‡	Heading: Design methods
8.1.1	22.1.3		
8.1.2	---	~	Pointer to Appendix B
8.1.3	---	~	Pointer to Appendix D
8.2	---	‡	Heading: Loading
8.2.1	4.4.4		
8.2.2	5.2.2		
	5.2.3	~	Add reference to ASCE 7 for live load reduction
8.2.3	4.4.4		
8.2.4	4.4.5		
	5.3.4		
8.3	---	‡	Heading: Methods of analysis
8.3.1	6.2.2		
8.3.2	6.5		
	6.5.1		
8.3.3	6.5.2		
	6.5.4		
8.3.4	6.2.4.3		
	22.1.2		Pointer to Appendix A
8.4	---	‡	Heading: Redistribution of moments in continuous flexural members
	6.5.3		
	6.6.1.2		
8.4.1	6.6.5.1		
	6.6.5.3		
	6.7.1.4		
	6.8.1.5		
8.4.2	6.6.5.1		
8.4.3	6.6.5.4		
	6.6.5.5		
8.5	---	‡	Heading: Modulus of elasticity
8.5.1	19.2.2.1		
8.5.2	20.2.2.2		
8.5.3	20.3.2.1		
8.6	---	‡	Heading: Lightweight concrete
	19.2.4.1		
8.6.1	19.2.4.2		
	19.2.4.3		
	26.4.2.1(a)(10)		
8.7	---	‡	Heading: Stiffness
8.7.1	6.3.1.1		
8.7.2	6.3.1.3		
	24.2.3.2		
8.8	---	‡	Heading: Effective stiffness to determine lateral deflections

Chapter 8 - ANALYSIS AND DESIGN – GENERAL CONSIDERATIONS

318-11	318-14	Note	Description
8.8.1	6.6.3.2.2 6.7.2.2.2		
8.8.2	6.6.3.1.1 6.6.3.1.2		
8.8.3	6.6.3.1.3		
8.9	---	‡	Heading: Span length
8.9.1	2.2		Moved to definitions
8.9.2	2.2		Moved to definitions
8.9.3	7.4.2.1 8.4.2.1 9.4.2.1		
8.9.4	6.6.2.3(a)		
8.10	---	‡	Heading: Columns
8.10.1	10.4.2.1		
8.10.2	6.6.2.2		
8.10.3	6.3.1.2		
8.10.4	6.5.5 6.6.2.1		
8.11	---	‡	Heading: Arrangement of live loads
8.11.1	6.3.1.2 6.4.1		
8.11.2	6.4.2		
8.12	---	‡	Heading: T-beam construction
8.12.1	6.3.2.1		
8.12.2	6.3.2.1		
8.12.3	6.3.2.1		
8.12.4	6.3.2.2		
8.12.5	7.5.2.3 9.2.4.3		
8.12.5.1	7.5.2.3		
8.12.5.2	7.7.2.4		
8.13	---	‡	Heading: Joist construction
8.13.1	8.8.1.1 9.8.1.1		
8.13.2	8.8.1.2 8.8.1.3 9.8.1.2 9.8.1.3		
8.13.3	8.8.1.4 9.8.1.4		
8.13.4	8.8.1.8 9.8.1.8		
8.13.5	8.8.2.1 9.8.2.1		

Chapter 8 - ANALYSIS AND DESIGN – GENERAL CONSIDERATIONS

318-11	318-14	Note	Description
8.13.5.1	8.8.2.1.2 9.8.2.1.2		
8.13.5.2	8.8.2.1.1 9.8.2.1.1		
8.13.5.3	9.8.1.7		
8.13.6	8.8.3.1 9.8.3.1		
8.13.6.1	8.8.3.1 9.8.3.1		
8.13.6.2	8.8.1.7 9.8.1.7		
8.13.7	---	~	Outdated embedment requirements
8.13.8	8.8.1.5 9.8.1.5		
8.14	---	‡	Heading: Separate floor finish
8.14.1	7.3.1.2 8.3.1.3 9.3.1.2		
8.14.2	20.6.1.2		

Chapter 9 - STRENGTH AND SERVICEABILITY REQUIREMENTS

318-11	318-14	Note	Description
9.1	---	‡	Heading: General
	4.4.4		
	4.6.2		
	7.5.1.1		
	8.5.1.1		
	9.5.1.1		
	10.5.1.1		
9.1.1	11.5.1.1		
	12.5.1.1		
	14.5.1.1		
	16.2.3.1		
	16.3.3.1		
	16.5.4.1		
	22.1.3		
9.1.2	4.7.1		
9.1.3	---	~	Pointer to Appendix C
9.2	---	‡	Heading: Required strength
9.2.1	5.3.1		
	5.3.2		
9.2.1(a)	5.3.3		
9.2.1(b)	5.3.5		
9.2.1(c)	---	~	Removal of the service-level load earthquake load combination
9.2.2	---	‡	Heading: Impact effects
9.2.2	5.3.4		
9.2.3	---	‡	Heading: Self-straining effects
9.2.3	5.3.6		
9.2.4	---	‡	Heading: Fluid loads
9.2.4	5.3.7		
9.2.5	---	‡	Heading: Lateral soil pressure
9.2.5	5.3.8		
9.2.6	---	‡	Heading: Flood and ice loads
9.2.6	5.3.9		
	5.3.10		
9.2.7	---	‡	Heading: Prestressing steel jacking force
9.2.7	5.3.12		
	25.9.2.1		
9.3	---	‡	Heading: Design strength
9.3.1	4.6.1		
	21.2.1		
9.3.2	---	‡	Introduction to section
9.3.2.1	21.2.2		
	4.1.3		
9.3.2.2	21.2.2		

Chapter 9 - STRENGTH AND SERVICEABILITY REQUIREMENTS

318-11	318-14	Note	Description
9.3.2.3	21.2.1		
9.3.2.4	22.8.1.2 21.2.1		
9.3.2.5	21.2.1		
9.3.2.6	21.2.1		
9.3.2.7	21.2.3		
9.3.3	25.4.1.3		
9.3.4	21.2.4 21.2.4.1 21.2.4.2 21.2.4.3		
9.3.5	21.2.1		
9.4	---	‡	Heading: Design strength for reinforcement
9.4	20.2.2.4		
9.5	---	‡	Heading: Control of deflections
9.5.1	24.2.1		
9.5.2	---	‡	Heading: One-way construction (nonprestressed)
9.5.2.1	7.3.1.1 7.3.1.1.1 7.3.1.1.2 9.3.1.1 9.3.1.1.1 9.3.1.1.2		
Table 9.5(a)	Table 7.3.1.1 Table 9.3.1.1		
9.5.2.2	24.2.3.1		
9.5.2.3	19.2.3.1 24.2.3.5		
9.5.2.4	24.2.3.6 24.2.3.7		
9.5.2.5	24.2.4.1.1 24.2.4.1.2 24.2.4.1.3		
9.5.2.6	24.2.2		
Table 9.5(b)	Table 24.2.2		
9.5.3	---	‡	Heading: Two-way construction (nonprestressed)
9.5.3.1	8.3.1.1 8.3.1.2		
9.5.3.2	8.3.1.1		
Table 9.5(c)	Table 8.3.1.1		
9.5.3.3	8.3.1.2 8.3.1.2.1		

Chapter 9 - STRENGTH AND SERVICEABILITY REQUIREMENTS

318-11	318-14	Note	Description
	24.2.3.3		
9.5.3.4	24.2.4.1.1		
	8.3.2.1		
9.5.4	---	‡	Heading: Prestressed concrete construction
9.5.4.1	24.2.3.8		
9.5.4.2	24.2.3.9		
9.5.4.3	24.2.4.2.1		
9.5.4.4	24.2.2		
9.5.5	---	‡	Heading: Composite construction
9.5.5.1	---	‡	Heading: Shored construction
	24.2.5.1		
	24.2.5.3		
9.5.5.1	7.3.1.1.3		
	9.3.1.1.3		
	26.11.1.1(b)		
9.5.5.2	---	‡	Heading: Unshored construction
	7.3.2.2		
9.5.5.2	8.3.2.2		
	9.3.2.2		
	24.2.5.2		
9.5.5.3	24.2.2		

Chapter 10 - FLEXURE AND AXIAL LOADS

318-11	318-14	Note	Description
10.1	---	‡	Heading: Scope
10.1	---	‡	Scope of chapter
10.2	---	‡	Heading: Design assumptions
	4.5.1		
10.2.1	22.2.1.1		
	13.2.6.2		
10.2.2	22.1.2		
	22.2.1.2		
10.2.3	22.2.2.1		
10.2.4	20.2.2.1		
10.2.5	22.2.2.2		
10.2.6	22.2.2.3		
10.2.7	22.2.2.4		
10.2.7.1	22.2.2.4.1		
10.2.7.2	22.2.2.4.2		
10.2.7.3	22.2.2.4.3		
10.3	---	‡	Heading: General principles and requirements
10.3.1	22.2.1.1		
10.3.2	21.2.2		
	21.2.2		
10.3.3	21.2.2.1		
	21.2.2.2		
10.3.4	21.2.2		
	7.3.3.1		
10.3.5	8.3.3.1		
	9.3.3.1		
10.3.5.1	22.2.3.1		
10.3.6	22.4.2.1		
	22.4.2.1		
10.3.6.1	22.4.2.2		
	22.4.2.1		
10.3.6.2	22.4.2.2		
	22.4.2.1		
10.3.6.3	22.4.2.3	~	Define P_o for prestressed columns
	6.2.6		
10.3.7	10.4.2.1		
	11.4.2.1		
10.4	---	‡	Heading: Distance between lateral supports of flexural members
10.4.1	9.2.3.1(a)		
10.4.2	9.2.3.1(b)		
10.5	---	‡	Heading: Minimum reinforcement of flexural members
10.5.1	9.6.1.1		
	9.6.1.2		

Chapter 10 - FLEXURE AND AXIAL LOADS

318-11	318-14	Note	Description
10.5.2	9.6.1.2		
10.5.3	9.6.1.3		
10.5.4	7.6.1.1		
	7.7.2.3		
10.6	---	‡	Heading: Distribution of flexural reinforcement in beams and one-way slabs
10.6.1	---	‡	Scope of section
10.6.2	8.7.2.2		
10.6.3	11.7.2.4		
	24.3.1		
10.6.4	24.3.2		
	24.3.2.1		
	24.3.3		
10.6.5	24.3.5		
10.6.6	24.3.4		
10.6.7	9.7.2.3		
10.7	---	‡	Heading: Deep beams
10.7.1	9.9.1.1		
	9.9.1.2		
10.7.2	---	‡	Pointer to 11.7
10.7.3	9.9.3.2		
10.8	---	‡	Heading: Design dimensions for compression members
10.8.1	---	‡	Heading: Isolated compression member with multiple spirals
10.8.1	10.3.1.4		
10.8.2	---	‡	Heading: Compression member built monolithically with wall
10.8.2	10.3.1.3		
	10.3.1.5		Editorial, from commentary
10.8.3	---	‡	Heading: Equivalent circular compression member
10.8.3	10.3.1.1		
10.8.4	---	‡	Heading: Limits of section
10.8.4	10.3.1.2		
10.9	---	‡	Heading: Limits for reinforcement of compression members
10.9.1	10.6.1.1		
10.9.2	10.7.3.1		
10.9.3	20.2.2.4		
	25.7.3.3		
10.10	---	‡	Heading: Slenderness effects in compression members
10.10.1	6.2.5	~	Change the sign convention for consistency
10.10.1.1	2.2		Moved to definitions
10.10.1.2	6.2.5.1		

Chapter 10 - FLEXURE AND AXIAL LOADS

318-11	318-14	Note	Description
	6.2.6		
10.10.2	6.6.4.2		
	6.7.1.3		
	6.8.1.4		
10.10.2.1	6.2.6		
	6.6.1.1		
10.10.2.2	6.6.4.6.4		
	6.7.1.2		
	6.8.1.3		
10.10.3	---	‡	Heading: Nonlinear second-order analysis
10.10.3	6.8.1.1		
	6.8.1.2		
10.10.4	---	‡	Heading: Elastic second-order analysis
10.10.4	6.7.1.1		
	6.6.3.1.1		
10.10.4.1	6.6.4.2		
	6.7.1.3		
	6.8.1.4		
10.10.4.2	6.6.3.1.1		
10.10.5	---	‡	Heading: Moment magnification procedure
10.10.5	6.6.4.1		
10.10.5.1	6.6.4.3(a)		
10.10.5.2	6.6.4.3(b)		
	6.6.4.4.1		
10.10.6	---	‡	Heading: Moment magnification procedure – Nonsway
	6.6.4.4.2		
10.10.6	6.6.4.5.1		
	6.6.4.5.2		
10.10.6.1	6.6.4.4.4		
10.10.6.2	6.6.4.4.4		
10.10.6.3	6.6.4.4.3		
10.10.6.4	6.6.4.5.3	~	Change the sign convention for consistency
10.10.6.5	6.6.4.5.4		
10.10.7	---	‡	Heading: Moment magnification procedure – Sway
10.10.7	6.6.4.6.1		
10.10.7.1	6.6.4.6.3		
10.10.7.2	6.6.4.4.3		
10.10.7.3	6.6.4.6.2		
10.10.7.4	6.6.4.6.2		
10.11	---	‡	Heading: Axially loaded members supporting slab system
10.11	---	‡	Pointer to Chapters 10 and 13
10.12	---	‡	Heading: Transmission of column loads through floor system
10.12	15.3.1		

Chapter 10 - FLEXURE AND AXIAL LOADS

318-11	318-14	Note	Description
	15.3.1(a)		
10.12.1	26.5.7.1(d)		
	26.5.7.2(c)		
10.12.2	15.3.1(b)		
10.12.3	15.3.1(c)		
10.13	---	‡	Heading: Composite compression members
	4.12.4.1		
10.13.1	10.2.2.1		
10.13.2	22.3.3.1		
10.13.3	10.5.2.2		
10.13.4	10.5.2.2		
	6.2.5.2		
10.13.5	6.6.4.4.5		
10.13.6	---	‡	Heading: Structural steel encased concrete core
10.13.6.1	10.3.1.6		
10.13.6.2	6.2.5.2		
10.13.7	---	‡	Heading: Spiral reinforcement around structural steel core
10.13.7	---	‡	Introduction
10.13.7.1	20.4.2.2		
10.13.7.2	---	‡	Pointer to 10.9.3
10.13.7.3	10.6.1.2		
10.13.7.4	6.2.5.2		
10.13.8	---	‡	Heading: Tie reinforcement around structural steel core
10.13.8	---	‡	Introduction
10.13.8.1	20.4.2.2		
10.13.8.2	22.4.2.1		
10.13.8.3	10.7.6.1.4		
10.13.8.4	10.7.6.1.4		
10.13.8.5	10.6.1.2		
10.13.8.6	10.7.3.2		
10.13.8.7	6.2.5.2		
10.14	---	‡	Heading: Bearing strength
10.14.1	22.8.3.2		
10.14.2	22.8.1.2		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.1	---	‡	Heading: Shear strength
	7.5.1.1		
	8.5.1.1		
	9.5.1.1		
	10.5.1.1		
11.1.1	11.4.3.1		
	11.5.1.1		
	11.5.4.4		
	16.5.4.1		
	22.5.1.1		
	7.2.1		
11.1.1.1	8.2.2		
	22.5.1.7		
11.1.1.2	22.5.1.8		
	22.5.1.9		
	12.5.3.3		
	12.5.3.4		
11.1.2	22.5.3.1		
	22.6.3.1		
	22.7.2.1		
11.1.2.1	22.5.3.2		
	7.4.3.2		
11.1.3	8.4.3.2		
	9.4.3.2		
	7.4.3.1		Editorial, from commentary
	7.4.3.2		
11.1.3.1	8.4.3.1		Editorial, from commentary
	8.4.3.2		
	9.4.3.1		Editorial, from commentary
	9.4.3.2		
	14.4.3.3.2		
	7.4.3.2		
11.1.3.2	8.4.3.2		
	9.4.3.2		
11.1.4	---	‡	Pointer to 11.7 through 11.11
11.2	---	‡	Heading: Shear strength provided by concrete for nonprestressed members
11.2.1	22.5.5.1		
	22.5.6.1		
11.2.1.1	22.5.5.1		
	22.5.6.1		
11.2.1.2	11.5.4.6		
11.2.1.3	22.5.7.1		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.2.2	22.5.5.1 22.5.6.1		
11.2.2.1	22.5.5.1		
11.2.2.2	22.5.6.1		
11.2.2.3	22.5.7.1 11.5.4.6		
11.2.3	22.5.2.2		
11.3	---	‡	Heading: Shear strength provided by concrete for prestressed members
11.3.1	22.5.2.1 22.6.2.2		
11.3.2	22.5.8.2		
11.3.3	22.5.8.3		
11.3.3.1	22.5.8.3.1		
11.3.3.2	22.5.8.3.2 22.5.8.3.3 22.5.8.3.4		
11.3.4	22.5.9.1 22.5.9.2 22.5.9.3	~	Revise the effect of prestress on shear at ends of members
11.3.5	22.5.9.1 22.5.9.4 22.5.9.5	~	Revise the effect of prestress on shear at ends of members
11.4	---	‡	Heading: Shear strength provided by shear reinforcement
11.4.1	---	‡	Heading: Types of shear reinforcement
11.4.1.1	22.5.10.5.1		
11.4.1.2	22.5.10.4 22.5.10.5.2 22.5.10.6.1		
11.4.2	20.2.2.4 22.5.2.1		
11.4.3	22.6.2.2 22.7.7.1.1		
11.4.4	25.7.1.1		
11.4.5	---	‡	Heading: Spacing limits for shear reinforcement
11.4.5.1	9.7.6.2.2 10.7.6.5.2		
11.4.5.2	9.7.6.2.3		
11.4.5.3	9.7.6.2.2 10.7.6.5.2		
11.4.6	---	‡	Heading: Minimum shear reinforcement
11.4.6.1	7.6.3.1 9.6.3.1 10.6.2.1		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.4.6.2	7.6.3.2 9.6.3.2		
11.4.6.3	9.6.3.3 10.6.2.2 15.4.2		
11.4.6.4	9.6.3.3		
11.4.7	---	‡	Heading: Design of shear reinforcement
11.4.7.1	22.5.10.1 22.5.10.5.3		
11.4.7.2	22.6.7.2 22.6.8.2		
11.4.7.3	22.5.2.2 22.5.10.5.5 22.5.10.5.6		
11.4.7.4	22.5.10.5.4		
11.4.7.5	22.5.10.6.2		
11.4.7.6	22.5.10.6.3		
11.4.7.7	22.5.10.6.1		
11.4.7.8	22.5.10.4		
11.4.7.9	22.5.1.2		
11.5	---	‡	Heading: Design for torsion
11.5	---	‡	Pointer to 11.5.1 through 11.5.6 and 11.5.7
11.5.1	---	‡	Heading: Threshold torsion
11.5.1	9.5.4.1 22.7.1.1 22.7.4.1		
11.5.1.1	9.2.4.4 9.2.4.4(b)		
11.5.2	---	‡	Heading: Calculation of factored torsional moment
11.5.2.1	22.7.3.1 22.7.3.2		
11.5.2.2	22.7.3.3 22.7.5.1		
11.5.2.3	9.4.4.1		
11.5.2.4	9.4.4.2 9.4.4.3		
11.5.2.5	9.4.4.2 9.4.4.3		
11.5.3	---	‡	Heading: Torsional moment strength
11.5.3.1	22.7.7.1 22.7.7.1.1		
11.5.3.2	22.7.6.1.2		
11.5.3.3	22.7.7.2		
11.5.3.4	20.2.2.4		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.5.3.5	22.7.3.1		
	22.7.6.1		
11.5.3.6	22.7.6.1.1		
	22.7.6.1.2		
11.5.3.7	22.7.6.1		
11.5.3.8	9.5.4.3		
11.5.3.9	9.5.4.5		
11.5.3.10	9.5.4.4		
11.5.3.11	9.5.4.5		
11.5.4	---	‡	Heading: Details of torsional reinforcement
	9.7.6.3.1		
11.5.4.1	25.7.1.6		
	25.7.2.5		
11.5.4.2	25.7.1.6		
	25.7.2.5		
11.5.4.3	9.7.5.4		
	25.4.10.2		
11.5.4.4	9.7.6.3.4		
11.5.5	---	‡	Heading: Minimum torsional reinforcement
11.5.5.1	9.6.4.1		
11.5.5.2	9.6.4.2		
11.5.5.3	9.6.4.3		
11.5.6	---	‡	Heading: Spacing of torsional reinforcement
11.5.6.1	9.7.6.3.3		
	9.7.5.1		
11.5.6.2	9.7.5.2		
	25.7.1.2		
11.5.6.3	9.7.5.3		
	9.7.6.3.2		
11.5.7	---	‡	Heading: Alternative design for torsion
11.5.7	9.5.4.6		
11.6	---	‡	Heading: Shear-friction
11.6.1	22.9.1.1		
11.6.2	22.9.3.1		
11.6.3	22.9.1.2		
11.6.3.1	---	‡	Introduction to the remaining sections
11.6.4	---	‡	Heading: Shear-friction design method
11.6.4.1	22.9.4.2		
11.6.4.2	22.9.4.3		
11.6.4.3	22.9.4.2		
11.6.5	22.9.4.1		
	22.9.4.4		
11.6.6	20.2.2.4		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.6.7	22.9.4.5 22.9.4.6		
11.6.8	22.9.5.1 25.4.10.2		
11.6.9	22.9.4.2 26.5.6.1(b) 26.5.6.1(c) 26.5.6.2(d) 26.5.6.2(e)		
11.6.10	26.5.6.1(d)		
11.7	---	‡	Heading: Deep beams
11.7.1	9.9.1.1 9.9.1.2		
11.7.2	9.9.1.3 23.2.8		
11.7.3	9.9.2.1		
11.7.4	9.9.3.1		
11.7.4.1	9.9.3.1(a) 9.9.4.3		
11.7.4.2	9.9.3.1(b) 9.9.4.3		
11.8	---	‡	Heading: Provisions for brackets and corbels
11.8.1	16.5.1.1 16.5.2.1 23.2.9		
11.8.2	16.5.2.2		
11.8.3	16.5.3.1		
11.8.3.1	21.2.1		
11.8.3.2	16.5.4.4		
11.8.3.2.1	16.5.2.4		
11.8.3.2.2	16.5.2.5		
11.8.3.3	16.5.4.5 16.5.3.4		
11.8.3.4	16.5.3.5 16.5.4.1 16.5.4.3		
11.8.3.5	16.5.5.1		
11.8.4	16.5.5.2 16.5.6.6		
11.8.5	16.5.5.1		
11.8.6	16.5.6.3 25.4.10.2		
11.8.7	16.5.2.3		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.9	---	‡	Heading: Provisions for walls
11.9.1	11.5.4.1		
11.9.2	11.5.4.5 11.5.4.6		
11.9.3	11.5.4.3		
11.9.4	11.5.4.2		
11.9.5	11.5.4.5 11.5.4.6		
11.9.6	11.5.4.6		
11.9.7	11.5.4.7		
11.9.8	11.6.1 11.6.2		
11.9.9	---	‡	Heading: Design for shear reinforcement for walls
11.9.9.1	11.5.4.8		
11.9.9.2	11.6.2		
11.9.9.3	11.7.3.1 11.7.3.2		
11.9.9.4	11.6.2		
11.9.9.5	11.7.2.1 11.7.2.2		
11.10	---	‡	Heading: Transfer of moments to columns
11.10.1	15.2.2 15.2.3 15.2.4		
11.10.2	15.2.5 15.4.1 15.4.2.1		
11.11	---	‡	Heading: Provisions for slabs and footings
11.11.1	8.5.3.1		
11.11.1.1	8.5.3.1.1		
11.11.1.2	22.6.4.1		
11.11.1.3	22.6.4.2 14.4.3.4.2		
11.11.2	22.6.1.1		
11.11.2.1	22.6.5.2 22.6.5.3		
11.11.2.2	22.6.5.3 22.6.5.4 22.6.5.5		
11.11.3	8.7.6.1 22.6.7.1		
11.11.3.1	22.6.6.1 22.6.7.2		
11.11.3.2	22.6.6.2		

Chapter 11 - SHEAR AND TORSION

318-11	318-14	Note	Description
11.11.3.3	8.7.6.3		
11.11.3.4	8.7.6.2		
11.11.4	22.6.1.1		
11.11.4.1	22.6.9.1		
11.11.4.2	22.6.9.2		
11.11.4.3	22.6.9.3		
11.11.4.4	22.6.9.4		
11.11.4.5	22.6.9.5		
11.11.4.6	22.6.9.6		
11.11.4.7	22.6.9.8		
11.11.4.8	22.6.9.10		
11.11.4.9	22.6.9.7		
11.11.4.10	22.6.9.11		
	8.7.7.1		
11.11.5	8.7.7.1.1		
	22.6.8.1		
	22.6.6.1		
11.11.5.1	22.6.6.2		
	22.6.8.2		
	22.6.8.3		
11.11.5.2	8.7.7.1.2		
11.11.5.3	8.7.7.1.2		
	22.6.4.2		
11.11.5.4	22.6.6.1		
11.11.6	---	‡	Heading: Openings in slabs
11.11.6	22.6.4.3		
11.11.6.1	22.6.4.3		
11.11.6.2	22.6.9.9		
11.11.7	---	‡	Heading: Transfer of moment in slab-column connections
11.11.7.1	8.4.4.2.1		
	8.4.4.2.2		
	8.4.4.2.3		
	8.5.1.1		
11.11.7.2	22.6.1.2		
	22.6.1.3		
	22.6.6.1		
11.11.7.3	22.6.9.12		

Chapter 12 - DEVELOPMENT AND SPLICES OF REINFORCEMENT

318-11	318-14	Note	Description
12.1	---	‡	Heading: Development of reinforcement – General
	7.7.3.1		
	9.7.3.1		
12.1.1	25.4.1.1		
	25.4.1.2		
12.1.2	25.4.1.4		
12.1.3	4.10.2.1		
12.2	---	‡	Heading: Development of deformed bars and deformed wire in tension
12.2.1	25.4.2.1		
12.2.2	25.4.2.2		
12.2.3	25.4.2.3		
12.2.4	25.4.2.4		
12.2.5	---	‡	Heading: Excess reinforcement
12.2.5	25.4.10.1		
12.3	---	‡	Heading: Development of deformed bars and deformed wire in compression
12.3.1	25.4.9.1		
	25.4.9.2		
12.3.2	25.4.9.3		
	25.4.9.3		
12.3.3	25.4.10.1		
12.4	---	‡	Heading: Development of bundled bars
12.4.1	25.6.1.5		
12.4.2	25.6.1.6		
12.5	---	‡	Heading: Development of standard hooks in tension
12.5.1	25.4.3.1		
	25.4.3.1		
12.5.2	25.4.3.2		
	25.4.3.2		
12.5.3	25.4.10.1		
12.5.4	25.4.3.3		
12.5.5	25.4.1.2		
12.6	---	‡	Heading: Development of headed and mechanically anchored deformed bars in tension
12.6.1	25.4.4.1		
	25.4.4.1		
12.6.2	25.4.4.2		
	25.4.4.3		
12.6.3	25.4.1.2		
12.6.4	25.4.5.1		
12.7	---	‡	Heading: Development of welded deformed wire reinforcement in tension

Chapter 12 - DEVELOPMENT AND SPLICES OF REINFORCEMENT

318-11	318-14	Note	Description
	25.4.6.1		
12.7.1	25.4.6.2		
	25.4.10.1		
12.7.2	25.4.6.3		
12.7.3	25.4.6.4		
12.7.4	25.4.6.5		
12.8	---	‡	Heading: Development of welded plain wire reinforcement in tension
	25.4.7.1		
12.8	25.4.7.2		
	25.4.10.1		
12.9	---	‡	Heading: Development of prestressing strand
	25.4.8.1		
12.9.1	25.4.8.2		
12.9.1.1	25.4.8.3		
12.9.2	---	~	Removed since the requirement is already covered by other provisions (see 9.5.1.1, 21.2.3, and 25.4.8.1 in 318-14)
12.9.3	25.4.8.1		
12.10	---	‡	Heading: Development of flexural reinforcement – General
12.10.1	9.7.3.7		
	7.7.3.2		
12.10.2	9.7.3.2		
	7.7.3.3		
12.10.3	9.7.3.3		
	7.7.3.4		
12.10.4	9.7.3.4		
	7.7.3.5		
12.10.5	9.7.3.5		
	7.7.3.5(a)		
12.10.5.1	9.7.3.5(a)		
	7.7.3.5(b)		
12.10.5.2	9.7.3.5(b)		
	7.7.3.5(c)		
12.10.5.3	9.7.3.5(c)		
	7.7.3.6		
12.10.6	9.7.3.6		
	9.9.4.4		
12.10.6	13.2.8.4		
	16.5.6.5		

Chapter 12 - DEVELOPMENT AND SPLICES OF REINFORCEMENT

318-11	318-14	Note	Description
12.11	---	‡	Heading: Development of positive moment reinforcement
	7.7.3.8.1		
	7.7.3.8.2		
12.11.1	9.7.3.8.1		
	9.7.3.8.2		
	18.3.2		
	18.4.2.1		
12.11.2	18.3.2		
	18.4.2.1		
	25.4.10.2		
12.11.3	7.7.3.8.3		
	9.7.3.8.3		
12.11.4	9.9.4.5		
	9.9.4.6		
	25.4.10.2		
12.12	---	‡	Heading: Development of negative moment reinforcement
	7.7.3.1		
12.12.1	9.7.3.1		
	16.5.6.4		
12.12.2	---	‡	Pointer
12.12.3	7.7.3.8.4		
	9.7.3.8.4		
12.12.4	9.9.4.6		
12.13	---	‡	Heading: Development of web reinforcement
12.13.1	25.7.1.1		
12.13.2	---	‡	Introduction
12.13.2.1	25.7.1.3		
12.13.2.2	25.7.1.3		
12.13.2.3	25.7.1.4		
12.13.2.4	25.7.1.5		
12.13.2.5	25.7.1.3		
12.13.3	25.7.1.2		
12.13.4	9.7.6.2.4		
12.13.5	25.7.1.7		
12.14	---	‡	Heading: Splices of reinforcement – General
	26.6.1.1(d)		
	26.6.1.1(e)		
12.14.1	26.6.1.1(f)		
	26.6.1.1(g)		
	26.6.2.2(c)		
12.14.2	---	‡	Heading: Lap splices
12.14.2.1	25.5.1.1		
	25.5.5.2		
12.14.2.2	25.6.1.7		

Chapter 12 - DEVELOPMENT AND SPLICES OF REINFORCEMENT

318-11	318-14	Note	Description
12.14.2.3	25.5.1.3		
12.14.3	---	‡	Heading: Mechanical and welded splices
12.14.3.1	25.5.7.1		
12.14.3.2	25.5.7.1		
12.14.3.3	26.6.4.1(a)		
12.14.3.4	25.5.7.1		
12.14.3.5	---	~	Elimination of mechanical and welded splices with strengths less than 125% of f_y .
12.15	---	‡	Heading: Splices of deformed bars and deformed wire in tension
12.15.1	25.5.1.4 25.5.2.1		
12.15.2	25.5.2.1		
12.15.3	25.5.2.2		
12.15.4	25.5.7.1		
12.15.5	---	~	Elimination of mechanical and welded splices with strengths less than 125% of f_y .
12.15.5.1	---	~	Elimination of mechanical and welded splices with strengths less than 125% of f_y .
12.15.5.2	---	~	Elimination of mechanical and welded splices with strengths less than 125% of f_y .
12.15.5.3	---	~	Elimination of mechanical and welded splices with strengths less than 125% of f_y .
12.15.6	25.5.7.3 25.5.7.4		
12.16	---	‡	Heading: Splices of deformed bars in compression
12.16.1	25.5.5.1		
	25.5.5.2		
12.16.2	25.5.5.3		
	25.5.5.4		
12.16.3	25.5.7.1		
12.16.4	---	‡	Heading: End-bearing splices
12.16.4.1	25.5.6.1 26.6.2.2(d)		
12.16.4.2	25.5.6.3 26.6.2.2(e)		
12.16.4.3	25.5.6.2		
12.17	---	‡	Heading: Splice requirements for columns
12.17.1	10.7.5.1.1 10.7.5.1.2		

Chapter 12 - DEVELOPMENT AND SPLICES OF REINFORCEMENT

318-11	318-14	Note	Description
12.17.2	---	‡	Heading: Lap splices in columns
12.17.2.1	10.7.5.2.1		
12.17.2.2	10.7.5.2.2		
12.17.2.3	10.7.5.2.2		
12.17.2.4	10.7.5.2.1		
12.17.2.5	10.7.5.2.1		
12.17.3	---	‡	Heading: Mechanical or welded splices in columns
12.17.3	25.5.7.1		
12.17.4	---	‡	Heading: End-bearing splices in columns
12.17.4	10.7.5.3.1		
12.18	---	‡	Heading: Splices of welded deformed wire reinforcement in tension
12.18.1	25.5.1.4 25.5.3.1		
12.18.2	25.5.3.1.1		
12.18.3	25.5.3.1 25.5.3.1.2		
12.19	---	‡	Heading: Splices of welded plain wire reinforcement in tension
12.19.1	---	‡	Introduction
12.19.1.1	25.5.1.4 25.5.4.1		
12.19.1.2	25.5.1.4 25.5.4.2		

Chapter 13 - TWO-WAY SLABS

318-11	318-14	Note	Description
13.1	---	‡	Heading: Scope
13.1.1	8.1.1		
13.1.2	8.4.1.4		
13.1.3	8.1.1		
13.1.4	8.3.1.1		
13.2	---	‡	Heading: General
13.2.1	8.4.1.5		
13.2.2	8.4.1.6		
13.2.3	8.4.1.7		
13.2.4	8.4.1.8 9.2.4.4(a)		
13.2.5	8.2.4		
13.2.6	8.2.5		
13.3	---	‡	Heading: Slab reinforcement
13.3.1	8.6.1.1		
13.3.2	8.7.2.2		
13.3.3	8.7.4.1.1(a)		
13.3.4	8.7.4.1.1(b) 25.4.10.2		
13.3.5	8.7.4.1.2		
13.3.6	8.7.3.1		
13.3.6.1	8.7.3.1		
13.3.6.2	8.7.3.1.1		
13.3.6.3	8.7.3.1.2		
13.3.6.4	8.7.3.1.3		
13.3.7	8.5.2.2		
13.3.8	---	‡	Heading: Details of reinforcement in slabs without beams
13.3.8.1	8.7.4.1.3(a)		
Fig. 13.3.8	Fig. 8.7.4.1.3(a)		
13.3.8.2	8.7.4.1.3(b)		
13.3.8.3	8.7.4.1.3(c)		
13.3.8.4	8.7.4.1.3(a)		
13.3.8.5	8.7.4.2.1 8.7.4.2.2		
13.3.8.6	8.7.4.2.3 8.9.1		
13.4	---	‡	Heading: Openings in slab systems
13.4.1	8.5.4.1		
13.4.2	8.5.4.2		
13.4.2.1	8.5.4.2(a)		
13.4.2.2	8.5.4.2(b)		
13.4.2.3	8.5.4.2(c)		
13.4.2.4	8.5.4.2(d)		
13.5	---	‡	Heading: Design procedures

Chapter 13 - TWO-WAY SLABS

318-11	318-14	Note	Description
	8.2.1		
13.5.1	8.10.1.2		
	13.2.6.2		
13.5.1.1	8.2.1		
	8.4.1.2		
13.5.1.2	6.3.1.1		
13.5.1.3	8.4.1.9		
13.5.2	8.5.1.1		
13.5.3	8.4.2.3.1		
13.5.3.1	8.4.2.3.6		
13.5.3.2	8.4.2.3.2		
	8.4.2.3.3		
13.5.3.3	8.4.2.3.4		
13.5.3.4	8.4.2.3.5		
13.5.4	---	‡	Pointer to Ch. 11
13.6	---	‡	Heading: Direct design method
13.6.1	---	‡	Heading: Limitations
13.6.1	8.10.1.1		
13.6.1.1	8.10.2.1		
13.6.1.2	8.10.2.3		
13.6.1.3	8.10.2.2		
13.6.1.4	8.10.2.4		
13.6.1.5	8.10.2.5		
	8.10.2.6		
13.6.1.6	8.10.2.7		
13.6.1.7	8.10.4.3		
13.6.1.8	8.10.1.2		
13.6.2	---	‡	Heading: Total factored static moment for a span
13.6.2.1	8.10.3.1		
	8.10.3.2		
	8.10.3.2.1		
13.6.2.3	8.10.3.2.2		
13.6.2.4	8.10.3.2.3		
13.6.2.5	8.10.1.3		
	8.10.3.2.1		
13.6.3	---	‡	Heading: Negative and positive factored moments
13.6.3.1	8.10.1.3		
	8.10.4.4		
13.6.3.2	8.10.4.1		
13.6.3.3	8.10.4.2		
13.6.3.4	8.10.4.5		
13.6.3.5	8.10.4.6		
13.6.3.6	8.10.7.3		
13.6.4	---	‡	Heading: Factored moments in column strips

Chapter 13 - TWO-WAY SLABS

318-11	318-14	Note	Description
13.6.4.1	8.10.5.1		
13.6.4.2	8.10.5.2		
	8.10.5.3		
13.6.4.3	8.10.5.4		
13.6.4.4	8.10.5.5		
13.6.4.5	8.10.5.6		
13.6.5	---	‡	Heading: Factored moments in beams
13.6.5.1	8.10.5.7.1		
13.6.5.2	8.10.5.7.1		
13.6.5.3	8.10.5.7.2		
13.6.6	---	‡	Heading: Factored moments in middle strips
13.6.6.1	8.10.6.1		
13.6.6.2	8.10.6.2		
13.6.6.3	8.10.6.3		
13.6.7	---	‡	Heading: Modification of factored moments
13.6.7	8.10.4.3		
13.6.8	---	‡	Heading: Factored shear in slab systems with beams
13.6.8.1	8.10.8.1		
13.6.8.2	8.10.8.1		
13.6.8.3	8.10.8.2		
13.6.8.4	8.10.8.3		
13.6.8.5	8.5.3.1		
13.6.9	---	‡	Heading: Factored moments in columns and walls
13.6.9.1	8.10.7.1		
13.6.9.2	8.10.7.2		
13.7	---	‡	Heading: Equivalent frame method
13.7.1	8.11.1.1		
13.7.1.1	8.11.1.3		
13.7.1.2	8.11.1.4		
13.7.2	---	‡	Heading: Equivalent frame
13.7.2.1	8.11.2.1		
13.7.2.2	8.11.2.2		
13.7.2.3	8.11.2.4		
13.7.2.4	8.11.2.3		
13.7.2.5	8.11.2.5		
13.7.2.6	8.11.2.6		
13.7.3	---	‡	Heading: Slab-beams
13.7.3.1	8.11.3.3		
13.7.3.2	8.11.3.2		
13.7.3.3	8.11.3.1		
13.7.4	---	‡	Heading: Columns
13.7.4.1	8.11.4.3		
13.7.4.2	8.11.4.2		
13.7.4.3	8.11.4.1		

Chapter 13 - TWO-WAY SLABS

318-11	318-14	Note	Description
13.7.5	---	‡	Heading: Torsional members
13.7.5.1	8.11.5.1		
13.7.5.2	8.11.5.2		
13.7.6	---	‡	Heading: Arrangement of live load
13.7.6.1	6.4.3.1		
13.7.6.2	6.4.3.2		
13.7.6.3	6.4.3.3		
13.7.6.4	6.4.3		
13.7.7	---	‡	Heading: Factored moments
13.7.7.1	8.11.6.1		
13.7.7.2	8.11.6.2		
	8.11.6.3		
13.7.7.3	8.11.6.4		
13.7.7.4	8.11.6.5		
13.7.7.5	8.11.6.6		

Chapter 14 - WALLS

318-11	318-14	Note	Description
14.1	---	‡	Heading: Scope
14.1.1	11.1.1		
14.1.2	11.1.4		
14.2	---	‡	Heading: General
14.2.1	11.4.1.4		
14.2.2	11.5.2.1		
14.2.3	---	‡	Pointer to 11.9
14.2.4	11.2.3.1		
14.2.5	---	‡	Pointer to 10.8.2
14.2.6	11.2.4.1		
14.2.7	11.3.1.1 11.6.1		
14.2.8	11.2.2.2		
14.3	---	‡	Heading: Minimum reinforcement
14.3.1	11.6.1 11.6.2		
14.3.2	11.6.1		
14.3.3	11.6.1		
14.3.4	11.7.2.3		
14.3.5	11.7.2.1 11.7.3.1 11.7.3.2		
14.3.6	11.7.4.1		
14.3.7	11.7.5.1 25.4.10.2		
14.4	---	‡	Heading: Walls designated as compression members
14.4	11.5.2.1		
14.5	---	‡	Heading: Empirical design method
14.5.1	11.5.3.1		
14.5.2	11.5.3.1 11.5.3.2		
14.5.3	---	‡	Heading: Minimum thickness of walls designed by empirical design method
14.5.3.1	11.3.1.1		
14.5.3.2	11.3.1.1		
14.6	---	‡	Heading: Nonbearing walls
14.6.1	11.3.1.1		
14.7	---	‡	Heading: Walls as grade beams
14.7.1	13.3.5.1 13.3.5.2		
14.7.2	13.3.5.3		

Chapter 14 - WALLS

318-11	318-14	Note	Description
14.8	---	‡	Heading: Alternative design of slender walls
14.8.1	11.4.1.3		
14.8.2	11.8.1.1		
14.8.2.1	11.8.2.1		
14.8.2.2	11.8.1.1(a)		
14.8.2.3	11.8.1.1(b)		
14.8.2.4	11.8.1.1(c)		
14.8.2.5	11.8.2.2		
14.8.2.6	11.8.1.1(d)		
14.8.3	11.8.3.1		
	11.8.1.1(e)		
	11.8.4.1		
14.8.4	11.8.4.2		
	11.8.4.3		
	11.8.4.4		

Chapter 15 - FOOTINGS

318-11	318-14	Note	Description
15.1	---	‡	Heading: Scope
15.1.1	---	‡	Scope of chapter
15.1.2	---	‡	Pointer
15.2	---	‡	Heading: Loads and reactions
	13.2.6.1		
15.2.1	13.3.2.1		
	13.3.3.1		
	13.3.4.1		
15.2.2	13.3.1.1		
	13.4.1.1		
15.2.3	13.4.2.2		
15.3	---	‡	Heading: Footings supporting circular or regular polygon-shaped columns or pedestals
15.3	13.2.7.3		
	22.6.4.1.2		
15.4	---	‡	Heading: Moment in footings
15.4.1	13.2.6.4		
15.4.2	13.2.7.1		
15.4.3	13.3.2.2		
	13.3.3.2		
15.4.4	13.3.3.3		
15.4.4.1	13.3.3.3		
15.4.4.2	13.3.3.3		
15.5	---	‡	Heading: Shear in footings
15.5.1	13.2.7.2		
15.5.2	13.2.7.2		
	13.2.6.3		
15.5.3	13.4.2.3		
	13.4.2.4		
15.5.4	13.4.2.5		
15.5.4.1	13.4.2.5		
15.5.4.2	13.4.2.5		
15.5.4.3	13.4.2.5		
15.6	---	‡	Heading: Development of reinforcement in footings
15.6.1	13.2.8.1		
15.6.2	13.2.8.2		
	25.4.1.1		
15.6.3	13.2.7.1		
	13.2.8.2		
15.7	---	‡	Heading: Minimum footing depth
15.7	13.3.1.2		
	13.4.2.1		

Chapter 15 - FOOTINGS

318-11	318-14	Note	Description
15.8	---	‡	Heading: Transfer of force at base of column, wall, or reinforced pedestal
15.8.1	16.3.1.1		
15.8.1.1	16.3.3.4		
15.8.1.2	16.3.1.2		
15.8.1.3	16.3.5.2		
15.8.1.4	16.3.3.5		
15.8.2	16.3.5.1		
15.8.2.1	16.3.4.1		
15.8.2.2	16.3.4.2		
15.8.2.3	16.3.5.4 25.5.5.4		
15.8.2.4	16.3.5.3		
15.8.3	16.3.3.6		
15.8.3.1	16.3.3.1 16.3.6.1		
15.8.3.2	16.3.3.1 16.3.6.1		
15.8.3.3	16.3.3.5 16.3.3.6		
15.9	---	‡	Heading: Sloped or stepped footings
15.9.1	13.3.1.3		
15.9.2	26.5.7.1(c)		
15.10	---	‡	Heading: Combined footings and mats
15.10.1	13.6.2.1		
15.10.2	13.3.4.2		
15.10.3	13.3.4.3		
15.10.4	13.3.4.4		

Chapter 16 - PRECAST CONCRETE

318-11	318-14	Note	Description
16.1	---	‡	Heading: Scope
16.1.1	---	‡	Scope
16.2	---	‡	Heading: General
	4.12.1.1		
16.2.1	16.2.1.5		
	16.2.1.6		
	16.3.3.6		
16.2.2	4.12.1.3		
	16.2.1.4		
16.2.3	4.12.1.2		
	16.2.1.6		
	26.9.1(a)		
16.2.4	26.4.2.2(a)		
	26.9.1(b)		
	26.9.2(c)		
16.2.4(a)	26.9.1(b)		
	26.9.2(c)		
16.2.4(b)	26.4.2.2(a)		
16.3	---	‡	Heading: Distribution of forces among members
16.3.1	4.12.1.5		
16.3.2	4.12.1.4		
16.3.2.1	4.12.1.4(a)		
16.3.2.2	4.12.1.4(b)		
16.4	---	‡	Heading: Member design
16.4.1	11.6.1		
	24.4.3.5		
16.4.2	11.6.1		
	11.7.2.2		
	11.7.3.2		
16.5	---	‡	Heading: Structural integrity
16.5.1	16.2.4.1		
16.5.1.1	16.2.4.1		
16.5.1.2	16.2.4.2		
16.5.1.3	16.2.4.3		
	16.3.6.2		
16.5.1.4	16.2.1.3		
16.5.2	16.2.5		
16.5.2.1	16.2.5.1(a)		
	16.2.5.1(b)		
	16.2.5.1(c)		
16.5.2.2	16.2.5.1(d)		
16.5.2.3	16.2.5.1(e)		
16.5.2.4	16.2.5.1(f)		
16.5.2.5	16.2.5.2		

Chapter 16 - PRECAST CONCRETE

318-11	318-14	Note	Description
16.6	---	‡	Heading: Connection and bearing design
16.6.1	16.2.1.1		
16.6.1.1	16.2.1.2		
	16.2.3.4		
16.6.1.2	16.2.1.7		
16.6.2	---	‡	Introduction to section
16.6.2.1	16.2.3.3		
	16.2.6.1		
16.6.2.2	16.2.6.2		
	16.2.6.3		
16.6.2.3	7.7.3.8.1		
	9.7.3.8.1		
16.7	---	‡	Heading: Items embedded after concrete placement
16.7.1	26.9.2(e)		
	26.9.2(e)(1)		
16.7.1.1	26.9.2(e)(2)		
16.7.1.2	26.9.2(e)(3)		
16.7.1.3	26.9.2(e)(4)		
16.8	---	‡	Heading: Marking and identification
16.8.1	26.9.2(a)		
16.8.2	26.9.2(b)		
16.9	---	‡	Heading: Handling
16.9.1	4.12.1.1		
16.9.2	26.9.2(d)		
16.10	---	‡	Heading: Strength evaluation of precast construction
16.10.1	27.4.1.4		
16.10.1.1	27.4.1.4(a)		
16.10.1.2	27.4.1.4(b)		
16.10.2	---	‡	Pointer to 20.5

Chapter 17 - COMPOSITE CONCRETE FLEXURAL MEMBERS

318-11	318-14	Note	Description
17.1	---	‡	Heading: Scope
	4.12.3.1		
17.1.1	22.3.3.1		
	22.5.4.1		
17.1.2	---	‡	Scope
17.2	---	‡	Heading: General
17.2.1	22.3.3.2		
	22.5.4.4		
17.2.2	4.12.3.2		
17.2.3	22.3.3.4		
	22.5.4.3		
17.2.4	22.3.3.3		
	22.5.4.2		
17.2.5	4.12.3.3		
17.2.6	4.12.3.4		
17.2.7	24.2.5		Pointer to 9.5.5
17.3	---	‡	Heading: Shoring
17.3	26.11.1.1(c)		
17.4	---	‡	Heading: Vertical shear strength
17.4.1	22.5.4.4		
	22.5.4.5		
17.4.2	22.5.4.5		
	16.4.7.3		
17.4.3	16.4.4.4		
	16.4.5.3		
17.5	---	‡	Heading: Horizontal shear strength
17.5.1	16.4.1.1		
17.5.2	16.4.4.3		
17.5.3	16.4.3.1		
17.5.3.1	16.4.4.2		
17.5.3.2	16.4.4.2		
17.5.3.3	16.4.4.2		
17.5.3.4	16.4.4.1		
17.5.4	16.4.5.1		
17.5.4.1	16.4.5.2		
17.5.5	16.4.1.2		
17.6	---	‡	Heading: Ties for horizontal shear
17.6.1	16.4.6.1		
	16.4.7.2		
17.6.2	16.4.7.1		
17.6.3	16.4.7.3		

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
18.1	---	‡	Heading: Scope
18.1.1	---	‡	Scope
18.1.2	---	‡	Scope
18.1.3	---	‡	Resolved the intent of this provision
18.2	---	‡	Heading: General
18.2.1	---	‡	Introduction to section
18.2.2	4.12.2.1		
18.2.3	4.12.2.3		
18.2.4	4.12.2.2		
18.2.5	9.2.3.2		
18.2.6	4.12.2.4		
18.3	---	‡	Heading: Design assumptions
18.3.1	22.2.1.1		
18.3.2	24.5.1.2		
18.3.2.1	22.2.1.4 24.5.1.2(a)		
18.3.2.2	22.2.2.2 24.5.1.2(b)		
18.3.3	8.3.4.1 24.5.2.1		
18.3.4	24.5.2.2 24.5.2.3		
18.3.5	24.2.2 24.2.3.8 24.2.3.9 24.2.4.2.1		Pointer to 9.5.4 Pointer to 9.5.4 Pointer to 9.5.4 Pointer to 9.5.4
18.4	---	‡	Heading: Serviceability requirements – Flexural members
18.4.1	24.5.3.1 24.5.3.2 24.5.3.2.1		
18.4.2	24.5.4.1		
18.4.3	24.5.1.1		
18.4.4	24.3.1 24.3.3 24.3.5		Pointer to 10.6.4
18.4.4.1	24.3.2		
18.4.4.2	24.3.2 24.3.2.2		
18.4.4.3	24.3.2.2		
18.4.4.4	9.7.2.3		
18.5	---	‡	Heading: Permissible stresses in prestressed reinforcement
18.5.1	20.3.2.5.1 25.9.2.1		
18.6	---	‡	Heading: Loss of prestress

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
18.6.1	20.3.2.6.1		
18.6.2	---	‡	Heading: Friction loss in post-tensioning tendons
18.6.2.1	26.10.1(a)		
18.6.2.2	20.3.2.6.2		
18.6.2.3	26.10.2(e) 26.10.2(f)		
18.6.3	20.3.2.6.3		
18.7	---	‡	Heading: Flexural strength
18.7.1	22.2.1.3		
18.7.2	20.3.2.3.1 20.3.2.4.1		
18.7.3	22.3.2.1 22.3.2.2		
18.8	---	‡	Heading: Limits for reinforcement of flexural members
18.8.1	21.2.2		
18.8.2	7.6.2.1 7.6.2.2 8.6.2.2 8.6.2.2.1 9.6.2.1 9.6.2.2		
18.8.3	7.7.2.3 11.7.2.4 24.3.1		
18.9	---	‡	Heading: Minimum bonded reinforcement
18.9.1	7.6.2.3 8.6.2.3 9.6.2.3	~	Require the same amount of unbonded reinforcement for bonded and unbonded prestressed two-way slabs
18.9.2	7.6.2.3 9.6.2.3		
18.9.2.1	11.7.2.4 24.3.1		
18.9.2.2	7.6.2.3 9.6.2.3		
18.9.3	8.6.2.3	~	Require the same amount of unbonded reinforcement for bonded and unbonded prestressed two-way slabs
18.9.3.1	8.6.2.3	~	Require the same amount of unbonded reinforcement for bonded and unbonded prestressed two-way slabs
18.9.3.2	8.6.2.3	~	Require the same amount of unbonded reinforcement for bonded and unbonded prestressed two-way slabs

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
18.9.3.3	8.6.2.3	~	Require the same amount of unbonded reinforcement for bonded and unbonded prestressed two-way slabs
	8.7.5.3	~	Require the same amount of unbonded reinforcement for bonded and unbonded prestressed two-way slabs
18.9.4	7.7.4.4.1		
	8.7.5.5.1		
	9.7.4.4.1		
18.9.4.1	7.7.4.4.1(a)		
	8.7.5.5.1(a)		
	9.7.4.4.1(a)		
18.9.4.2	7.7.4.4.1(b)		
	8.7.5.5.1(b)		
	9.7.4.4.1(b)		
18.9.4.3	7.7.4.2		
	8.7.5.2		
	9.7.4.2		
18.10	---	‡	Heading: Statically indeterminate structures
18.10.1	4.12.2.1		
18.10.2	4.7.1		
18.10.3	5.3.11		
	6.6.5.2		
	6.6.5.4		
	8.4.1.3		
18.10.4	---	‡	Heading: Redistribution of moments in continuous prestressed flexural members
18.10.4.1	6.6.5.1		
18.10.4.2	6.6.5.4		
18.11	---	‡	Heading: Minimum bonded reinforcement
18.11.1	22.4.1.1		
18.11.2	---	‡	Heading: Limits for reinforcement of prestressed compression members
18.11.2.1	10.6.1.1		
	10.7.3.1		
	11.6.1		
18.11.2.2	10.7.6.1.3		
18.11.2.2(a)	---	‡	Pointer
18.11.2.2(b)	25.7.2.1		
	25.7.2.2		
	25.7.2.2.1		
18.11.2.2(c)	10.7.6.2.1		
	10.7.6.2.2		
18.11.2.2(d)	10.7.6.2.2		
18.11.2.3	11.6.1		

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
18.12	---	‡	Heading: Slab systems
18.12.1	8.4.1.2		
18.12.2	7.5.1.1 8.5.1.1		
18.12.3	8.3.2.1		
18.12.4	7.2.1 8.2.2 8.2.3 8.6.2.1 8.7.2.3 8.7.2.4		
18.12.5	8.12.5 9.2.4.3		
18.12.6	8.7.5.6.1 8.7.5.6.2	~	Require the same structural integrity requirements for bonded and unbonded prestressed two-way slabs
18.12.7	8.7.5.6.3 8.7.5.6.3.1 8.7.5.6.3.2 8.7.5.6.3.3	~	Require the same structural integrity requirements for bonded and unbonded prestressed two-way slabs
18.12.8	8.9.1		Pointer to 13.3.8.6
18.13	---	‡	Heading: Post-tensioned tendon anchorage zones
18.13.1	---	‡	Heading: Anchorage zone
18.13.1	25.9.1.1 25.9.4.1 25.9.4.2		
18.13.2	---	‡	Heading: Local zone
18.13.2.1	25.9.2.1		
18.13.2.2	25.9.3.1		
18.13.2.3	25.9.3.1		
18.13.3	---	‡	Heading: General zone
18.13.3.1	25.9.2.1		
18.13.3.2	25.9.4.4.2		
18.13.3.3	25.9.4		
18.13.4	---	‡	Heading: Nominal material strengths
18.13.4.1	25.9.4.5.1		
18.13.4.2	25.9.4.5.2 25.9.4.5.3		

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
	25.9.1.4		
	25.9.4.5.4		
	25.9.4.5.5		
18.13.4.3	26.4.2.2(a)		
	26.10.2(j)		
	26.10.2(k)		
	26.10.2(k)(1)		
	26.10.2(k)(2)		
18.13.5	---	‡	Heading: Design methods
18.13.5.1	25.9.4.3.1	~	Update references in AASHTO
18.13.5.2	25.9.4.3.2		
18.13.5.3	25.9.1.5		
	26.10.1(b)		
18.13.5.4	25.9.4.3.3		
18.13.5.5	25.9.4.4.3		
	25.4.10.2		
18.13.5.6	25.9.4.4.4		
18.13.5.7	25.9.4.4.5		
18.13.5.8	25.9.4.4.1		
18.13.6	---	‡	Heading: Detailing requirements
18.13.6	25.9.5.1		
18.14	---	‡	Heading: Design of anchorage zones for monostrand or single 5/8 in. diameter bar tendons
18.14.1	---	‡	Heading: Local zone design
18.14.1	25.9.3.1(a)		
18.14.2	---	‡	Heading: General-zone design for slab tendons
18.14.2.1	25.9.4.4.6		
18.14.2.2	25.9.4.4.6(a)		
18.14.2.3	25.9.4.4.6(b)		
18.14.2.4	25.9.4.4.6		
18.14.3	---	‡	Heading: General-zone design for groups of monostrand tendons in beams and girders
18.14.3	25.9.4		
18.15	---	‡	Heading: Design of anchorage zones for multistrand tendons
18.15.1	---	‡	Heading: Local zone design
18.15.1	25.9.3.1(b)	~	Update references in AASHTO
	25.9.3.1(c)	~	Update references in AASHTO
18.15.2	---	‡	Heading: Use of special anchorage devices
18.15.2	25.9.3.2		
	25.9.3.2.1		
18.15.3	---	‡	Heading: General-zone design
18.15.3	25.9.4		
18.16	---	‡	Heading: Corrosion protection for unbonded tendons
18.16.1	20.6.3.1		

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
18.16.2	20.6.3.1		
18.16.3	20.6.3.2		
18.16.4	20.6.3.3		
18.17	---	‡	Heading: Post-tensioning ducts
18.17	26.10.1(f)		
18.17.1	20.6.4.1		
18.17.2	20.6.4.3		
18.17.3	20.6.4.4		
18.17.4	20.6.4.2		
18.18	---	‡	Heading: Grout for bonded tendons
18.18	26.10.1(g)		
18.18.1	---	~	Reference PTI M55.1
18.18.2	---	~	Reference PTI M55.1
18.18.2.1	---	~	Reference PTI M55.1
18.18.2.2	---	~	Reference PTI M55.1
18.18.2.3	---	~	Reference PTI M55.1
18.18.2.4	---	~	Reference PTI M55.1
18.18.3	---	‡	Heading: Selection of grout proportions
18.18.3.1	---	~	Reference PTI M55.1
18.18.3.2	---	~	Reference PTI M55.1
18.18.3.3	---	~	Reference PTI M55.1
18.18.3.4	---	~	Reference PTI M55.1
18.18.4	---	‡	Heading: Mixing and pumping grout
18.18.4.1	---	~	Reference PTI M55.1
18.18.4.2	---	~	Reference PTI M55.1
18.18.4.3	---	~	Reference PTI M55.1
18.19	---	‡	Heading: Protection for prestressing steel
18.19	26.10.2(d)		
18.20	---	‡	Heading: Application and measurement of prestressing force
18.20.1	26.10.2(e) 26.10.2(f)		
18.20.2	26.10.2(h)		
18.20.3	26.10.2(i)		
18.20.4	26.10.2(g)		
18.21	---	‡	Heading: Post-tensioning anchorages and couplers
18.21.1	25.8.1 25.8.2		
18.21.2	25.8.4 26.10.2(c)		
18.21.3	25.8.3		
18.21.4	20.6.5.1 26.10.1(e)		

Chapter 18 - PRESTRESSED CONCRETE

318-11	318-14	Note	Description
18.22	---	‡	Heading: External post-tensioning
18.22.1	4.12.2.5		
	7.5.2.2		
18.22.2	8.5.2.3		
	9.5.2.3		
	7.7.4.1		
18.22.3	8.7.5.1		
	9.7.4.1		
18.22.4	20.8.6.1		
	26.10.1(e)		

Chapter 19 - SHELLS AND FOLDED PLATE MEMBERS

318-11	318-14	Note	Description
19.1	---	‡	Heading: Scope and definitions
19.1.1	318.2-1.1.1		
19.1.2	318.2-1.1.2		
19.1.3	318.2-2.1.1		
19.1.4	318.2-2.1.2		
19.1.5	318.2-2.1.3		
19.1.6	318.2-2.1.4		
19.1.7	318.2-2.1.5		
19.1.8	318.2-2.1.6		
19.1.9	318.2-2.1.7		
19.2	---	‡	Heading: Analysis and design
19.2.1	318.2-3.1.1		
19.2.2	318.2-3.1.2		
19.2.3	318.2-3.1.3		
19.2.4	318.2-3.1.4		
19.2.5	318.2-3.1.5		
19.2.6	318.2-3.1.6		
19.2.7	318.2-3.1.7		
19.2.8	318.2-3.1.8		
19.2.9	318.2-3.1.9		
19.2.10	318.2-3.1.10		
19.2.11	318.2-3.1.11		
19.3	---	‡	Heading: Design strength of materials
19.3.1	318.2-4.1.1		
19.3.2	318.2-4.1.2		
19.4	---	‡	Heading: Shell reinforcement
19.4.1	318.2-6.1.1		
19.4.2	318.2-6.1.2		
19.4.3	318.2-6.1.3		
19.4.4	318.2-6.1.4		
19.4.5	318.2-6.1.5		
19.4.6	318.2-6.1.6		
19.4.7	318.2-6.1.7		
19.4.8	318.2-6.1.8		
19.4.9	318.2-6.1.9		
19.4.10	318.2-6.1.10		
19.4.11	318.2-6.1.11		
19.4.12	318.2-6.1.12		
19.5	---	‡	Heading: Construction
19.5.1	318.2-7.1.1		
19.5.2	318.2-7.1.2		

Chapter 20 - STRENGTH EVALUATION OF EXISTING STRUCTURES

318-11	318-14	Note	Description
20.1	---	‡	Heading: Strength evaluation – General
20.1.1	27.2.1		
20.1.2	27.2.2		
20.1.3	27.2.3		
20.1.4	27.2.4		
20.2	---	‡	Heading: Determination of required dimensions and material properties
20.2.1	27.3.1.1		
20.2.2	27.3.1.2		
20.2.3	27.3.1.3		
	27.3.1.4		
20.2.4	27.3.1.5		
20.2.5	27.3.2.1		
20.3	---	‡	Heading: Load test procedure
20.3.1	---	‡	Heading: Load arrangement
20.3.1	27.4.2.1		
20.3.2	---	‡	Heading: Load intensity
20.3.2	27.4.2.2		
	27.4.2.3		
	27.4.2.4		
20.3.3	27.4.1.3		
20.4	---	‡	Heading: Loading criteria
20.4.1	27.4.4.1		
	27.4.4.2		
20.4.2	27.4.3.1		
20.4.3	27.4.3.2		
20.4.4	27.4.3.3		
	27.4.4.3		
20.4.5	27.4.3.4		
20.4.6	27.4.4.4		
20.5	---	‡	Heading: Acceptance criteria
20.5.1	27.4.5.1		
	27.4.5.5		
20.5.2	27.4.5.6		
	27.4.5.7		
20.5.3	27.4.5.2		
20.5.4	27.4.5.3		
20.5.5	27.4.5.4		
20.6	---	‡	Heading: Provision for lower load rating
20.6	27.5.1		
20.7	---	‡	Heading: Safety
20.7.1	27.4.1.1		
20.7.2	27.4.1.2		

Chapter 21 - EARTHQUAKE-RESISTANT STRUCTURES

318-11	318-14	Note	Description
21.1	---	‡	Heading: General requirements
21.1.1	---	‡	Heading: Scope
21.1.1.1	18.1.2		
21.1.1.2	18.2.1.1		
21.1.1.3	18.2.1.2		
21.1.1.4	18.2.1.3		
21.1.1.5	18.2.1.4		
21.1.1.6	18.2.1.5		
	4.4.6.2		
21.1.1.7	4.4.6.3		
	18.2.1.6		
21.1.1.8	18.2.1.7		
21.1.2	---	‡	Heading: Analysis and proportioning of structural members
21.1.2.1	18.2.2.1		
21.1.2.2	4.4.6.5		
21.1.2.2	4.4.6.6		
21.1.2.2	18.2.2.2		
21.1.2.3	18.2.2.3		
21.1.3	---	‡	Heading: Strength reduction factors
21.1.3	18.2.4.1		
21.1.4	---	‡	Heading: Concrete in special moment frames and special structural walls
21.1.4.1	19.2.1.1		
21.1.4.2	19.2.1.1		
21.1.4.3	19.2.1.1		
21.1.5	---	‡	Heading: Reinforcement in special moment frames and special structural walls
21.1.5.1	20.2.2.4		
	20.2.2.4		
21.1.5.2	20.2.2.5	~	Elongation of seismic reinforcement
	26.13.2.3		
21.1.5.3	20.3.1.3		
21.1.5.4	20.2.2.4		
21.1.5.5	20.2.2.4		
21.1.6	---	‡	Heading: Mechanical splices in special moment frames and special structural walls
21.1.6.1	18.2.7.1		
21.1.6.2	18.2.7.2		
21.1.7	---	‡	Heading: Welded splices in special moment frames and special structural walls
21.1.7.1	18.2.8.1		
21.1.7.2	18.2.8.2		
21.1.8	---	‡	Heading: Anchoring to concrete
21.1.8	18.2.3.1		

Chapter 21 - EARTHQUAKE-RESISTANT STRUCTURES

318-11	318-14	Note	Description
21.2	---	‡	Heading: Ordinary moment frames
21.2.1	---	‡	Heading: Scope
21.2.1	18.3.1.1		
	18.3.2		
21.2.2	18.4.2.1		
	25.4.10.2		
21.2.3	18.3.3		
21.3	---	‡	Heading: Intermediate moment frames
21.3.1	---	‡	Heading: Scope
21.3.1	18.4.1.1		
21.3.2	18.4.2.6		
21.3.3	---	‡	Heading: Shear strength
21.3.3.1	18.4.2.3		
21.3.3.2	18.3.3		
21.3.3.2	18.4.3.1		
21.3.4	---	‡	Heading: Beams
21.3.4.1	18.4.2.2		
21.3.4.2	18.4.2.4		
21.3.4.3	18.4.2.5		
21.3.5	---	‡	Heading: Columns
21.3.5.1	18.4.3.2		
21.3.5.2	18.4.3.3		
21.3.5.3	18.4.3.4		
21.3.5.4	18.4.3.5		
21.3.5.5	18.4.4.1		
21.3.5.6	18.4.3.6		
21.3.6	---	‡	Heading: Two-way slabs without beams
21.3.6.1	18.4.5.1		
21.3.6.2	18.4.5.2		
21.3.6.3	18.4.5.3		
21.3.6.4	18.4.5.4		
21.3.6.5	18.4.5.5		
21.3.6.6	18.4.5.6		
	25.4.10.2		
21.3.6.7	18.4.5.7		
	25.4.10.2		
21.3.6.8	18.4.5.8		
21.4	---	‡	Heading: Intermediate precast structural walls
21.4.1	---	‡	Heading: Scope
21.4.1	18.5.1.1		
21.4.2	18.5.2.1		
21.4.3	18.5.2.2		
21.4.4	18.5.2.3		
21.5	---	‡	Heading: Flexure members of special moment frames

Chapter 21 - EARTHQUAKE-RESISTANT STRUCTURES

318-11	318-14	Note	Description
21.5.1	---	‡	Heading: Scope
21.5.1	18.6.1.1		
21.5.1.1	18.6.4.7		
21.5.1.2	18.6.2.1		
21.5.1.3	18.6.2.1		
21.5.1.4	18.6.2.1		
21.5.2	---	‡	Heading: Longitudinal reinforcement
21.5.2.1	18.6.3.1		
21.5.2.2	18.6.3.2		
21.5.2.3	18.6.3.3		
21.5.2.4	18.6.3.4		
21.5.2.5	18.6.3.5		
21.5.3	---	‡	Heading: Transverse reinforcement
21.5.3.1	18.6.4.1		
21.5.3.2	18.6.4.4		
21.5.3.2	18.6.4.7		
21.5.3.3	18.6.4.2		
21.5.3.4	18.6.4.6		
21.5.3.5	18.6.4.5		
	18.6.4.3		
21.5.3.6	25.3.5		
	25.7.4.2		
21.5.4	---	‡	Heading: Shear strength requirements
21.5.4.1	---	‡	Heading: Design forces
21.5.4.1	18.6.5.1		
21.5.4.2	---	‡	Heading: Transverse reinforcement
21.5.4.2	18.6.5.2		
21.6	---	‡	Heading: Special moment frame members subjected to bending and axial load
21.6.1	---	‡	Heading: Scope
21.6.1	18.7.1.1		
21.6.1.1	18.7.2		
21.6.1.2	18.7.2		
21.6.2	---	‡	Heading: Minimum flexural strength of columns
21.6.2.1	18.7.3.1		
21.6.2.2	18.7.3.2		
21.6.2.3	18.7.3.3		
21.6.3	---	‡	Heading: Longitudinal reinforcement
21.6.3.1	18.7.4.1		
21.6.3.2	18.7.4.2		
21.6.3.3	18.7.4.3		
21.6.4	---	‡	Heading: Transverse reinforcement
21.6.4.1	18.7.5.1		
21.6.4.2	18.7.5.2	~	Revised confinement for columns

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318-11	318-14	Note	Description
21.6.4.3	18.7.5.3		
21.6.4.4	18.7.5.4	~	Revised confinement for columns
21.6.4.5	18.7.5.5		
21.6.4.6	18.7.5.6		
21.6.4.7	18.7.5.7		
21.6.5	---	‡	Heading: Shear strength requirements
21.6.5.1	---	‡	Heading: Design forces
21.6.5.1	18.7.6.1.1		
21.6.5.2	---	‡	Heading: Transverse reinforcement
21.6.5.2	18.7.6.2.1		
21.7	---	‡	Heading: Joints of special moment frames
21.7.1	---	‡	Heading: Scope
21.7.1	18.8.1.1		
21.7.2	---	‡	Heading: General requirements
21.7.2.1	18.8.2.1		
21.7.2.2	18.8.2.2		
21.7.2.3	18.8.2.3		
21.7.3	---	‡	Heading: Transverse reinforcement
21.7.3.1	18.8.3.1	~	Revised confinement for columns
21.7.3.2	18.8.3.2	~	Revised confinement for columns
21.7.3.3	18.8.3.3		
21.7.4	---	‡	Heading: Shear strength
	18.8.4.1		
21.7.4.1	18.8.4.2		
	18.8.4.3		
21.7.4.2	18.8.4.1		
21.7.5	---	‡	Heading: Development length of bars in tension
21.7.5.1	18.8.5.1		
	25.4.10.2		
21.7.5.2	18.8.5.3		
	25.4.10.2		
21.7.5.3	18.8.5.4		
21.7.5.4	18.8.5.5		
21.8	---	‡	Heading: Special moment frame members constructed using precast concrete
21.8.1	---	‡	Heading: Scope
21.8.1	18.9.1.1		
21.8.2	18.9.2.1		
21.8.3	18.9.2.2		
	25.4.10.2		
21.8.4	18.9.2.3		
21.9	---	‡	Heading: Special structural walls and coupling beams
21.9.1	---	‡	Heading: Scope

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318-11	318-14	Note	Description
21.9.1	18.10.1.1 18.10.1.2		
21.9.2	---	‡	Heading: Reinforcement
21.9.2.1	18.10.2.1		
21.9.2.2	18.10.2.2	~	Revised detailing for special structural walls
21.9.2.3	18.10.2.3 25.4.10.2		
21.9.3	---	‡	Heading: Design forces
	18.10.3		
21.9.4	---	‡	Heading: Shear strength
21.9.4.1	18.10.4.1		
21.9.4.2	18.10.4.2		
21.9.4.3	18.10.4.3		
21.9.4.4	18.10.4.4		
21.9.4.5	18.10.4.5		
21.9.5	---	‡	Heading: Design for flexure and axial loads
21.9.5.1	18.10.5.1		
21.9.5.2	18.10.5.2		
21.9.6	---	‡	Heading: Boundary elements of special structural walls
21.9.6.1	18.10.6.1		
21.9.6.2	18.10.6.2	~	Revised detailing for special structural walls
21.9.6.3	18.10.6.3	~	Revised detailing for special structural walls
21.9.6.4	18.10.6.4 25.4.10.2	~	Revised detailing for special structural walls Revised confinement for columns
21.9.6.5	18.10.6.5	~	Revised detailing for special structural walls
21.9.7	---	‡	Heading: Coupling beams
21.9.7.1	18.10.7.1		
21.9.7.2	18.10.7.2		
21.9.7.3	18.10.7.3		
21.9.7.4	18.10.7.4 25.4.10.2	~	Revised confinement for columns
21.9.8	---	‡	Heading: Wall piers
21.9.8.1	18.10.8.1		
21.9.8.2	18.10.8.2		
21.9.9	---	‡	Heading: Construction joints
21.9.9	18.10.9.1 26.5.6.1(b) 26.5.6.1(c) 26.5.6.2(e)		
21.9.10	---	‡	Heading: Discontinuous walls
21.9.10	18.10.10.1		

Chapter 21 - EARTHQUAKE-RESISTANT STRUCTURES

318-11	318-14	Note	Description
21.10	---	‡	Heading: Special structural walls constructed using precast concrete
21.10.1	---	‡	Heading: Scope
21.10.1	18.11.1.1		
21.10.2	18.11.2.1		
21.10.3	18.11.2.2		
21.11	---	‡	Heading: Structural diaphragms and trusses
21.11.1	---	‡	Heading: Scope
21.11.1	18.12.1.1		
	18.12.1.2		
21.11.2	---	‡	Heading: Design forces
	21.11.2.1		
21.11.3	---	‡	Heading: Seismic load path
21.11.3.1	12.2.1		
	18.12.3.1		
21.11.3.2	18.12.3.2		
21.11.4	---	‡	Heading: Cast-in-place composite-topping slab diaphragms
	18.12.4.1		
	26.5.6.1(e)		
21.11.5	---	‡	Heading: Cast-in-place topping slab diaphragms
	18.12.5.1		
21.11.6	---	‡	Heading: Minimum thickness of diaphragms
	18.12.6.1		Editorial
21.11.7	---	‡	Heading: Reinforcement
21.11.7.1	18.12.7.1		
21.11.7.2	12.5.1.4		
	18.12.7.2		
21.11.7.3	18.12.7.3		
	25.4.10.2		
21.11.7.4	18.12.7.4		
21.11.7.5	18.12.7.5		
21.11.7.6	18.12.7.6		
21.11.8	---	‡	Heading: Flexural strength
	12.5.2.1		
	18.12.8.1		
21.11.9	---	‡	Heading: Shear strength
21.11.9.1	12.5.3.3		
	12.5.3.5		
	18.12.9.1		
21.11.9.2	12.5.3.4		
	18.12.9.2		
21.11.9.3	18.12.9.3		
21.11.9.4	18.12.9.4		

Chapter 21 - EARTHQUAKE-RESISTANT STRUCTURES

318-11	318-14	Note	Description
21.11.10	---	‡	Heading: Construction joints
	18.12.10.1		
21.11.11	---	‡	Heading: Structural trusses
21.11.11.1	18.12.11.1	~	Revised confinement for columns
21.11.11.2	18.12.11.2		
	25.4.10.2		
21.12	---	‡	Heading: Foundations
21.12.1	---	‡	Heading: Scope
21.12.1.1	18.13.1.1		
21.12.1.2	18.13.1.2		
21.12.2	---	‡	Heading: Footings, foundation mats, and pile caps
21.12.2.1	18.13.2.1		
	25.4.10.2		
21.12.2.2	18.13.2.2		
21.12.2.3	18.13.2.3		
	25.4.10.2		
21.12.2.4	18.13.2.4		
21.12.2.5	18.13.2.5		
21.12.3	---	‡	Heading: Grade beams and slabs-on-ground
21.12.3.1	18.13.3.1		
	25.4.10.2		
21.12.3.2	18.13.3.2		
21.12.3.3	18.13.3.3		
21.12.3.4	18.13.3.4		
	26.5.7.1(b)		
	26.5.7.2(d)		
21.12.4	---	‡	Heading: Piles, piers, and caissons
21.12.4.1	---	‡	Introduction
21.12.4.2	18.13.4.1		
21.12.4.3	18.13.4.2		
21.12.4.4	18.13.4.3		
21.12.4.5	18.13.4.4		
21.12.4.6	18.13.4.5		
21.12.4.7	18.13.4.6		

Chapter 21 - EARTHQUAKE-RESISTANT STRUCTURES

318-11	318-14	Note	Description
21.13	---	‡	Heading: Members not designated as part of the seismic-force-resisting system
21.13.1	---	‡	Heading: Scope
21.13.1	18.14.1.1		
21.13.2	18.14.3.1		
21.13.3	18.14.2.1		
	18.14.3.2		
21.13.3.1	18.14.3.2(a)		
21.13.3.2	18.14.3.2(b)		
21.13.3.3	18.14.3.2(c)		
21.13.4	18.14.3.3		
21.13.4.1	18.14.3.3(a)		
21.13.4.2	18.14.3.3(b)		
21.13.4.3	18.14.3.3(c)		
21.13.5	18.14.4.1		
21.13.6	18.14.2.1		
	18.14.5.1		
21.13.7	18.14.6.1		

Chapter 22 - STRUCTURAL PLAIN CONCRETE

318-11	318-14	Note	Description
22.1	---	‡	Heading: Scope
22.1.1	14.1.1		
22.1.2	---	‡	List of applicable provisions
22.1.3	14.1.1		
22.2	---	‡	Heading: Limitations
22.2.1	14.1.3 14.1.5		
22.2.2	14.1.2		
22.2.3	---	‡	Heading: Minimum specified strength
22.2.3	19.2.1.1		
22.2.4	---	‡	Heading: Lightweight concrete
22.2.4	14.5.1.5 19.2.4.2		
22.3	---	‡	Heading: Joints
22.3.1	14.3.4.1		
22.3.2	14.3.4.2		
22.4	---	‡	Heading: Design method
22.4.1	5.3.1 14.4.1.1		
22.4.2	---	‡	Unnecessary statement
22.4.3	14.5.1.4		
22.4.4	14.5.1.3		
22.4.5	14.5.1.6		
22.4.6	14.2.2.1 14.4.1.3		
22.4.7	14.5.1.7		
22.5	---	‡	Heading: Strength design
22.5.1	14.5.1.1 14.5.2.1		
22.5.2	14.5.1.1 14.5.3.1		
22.5.3	14.5.4.1		
22.5.4	14.5.1.1 14.5.5.1		
22.5.5	14.5.1.1 14.5.6.1		
22.6	---	‡	Heading: Walls
22.6.1	14.1.3		
22.6.2	14.4.1.1		
22.6.3	14.4.2.1 14.5.4.2		
22.6.4	14.5.1.1		
22.6.5	---	‡	Heading: Empirical design method
22.6.5.1	14.5.4.2		

Chapter 22 - STRUCTURAL PLAIN CONCRETE

318-11	318-14	Note	Description
22.6.5.2	14.5.4.2		
22.6.6	---	‡	Heading: Limitations
22.6.6.1	14.5.1.8		
22.6.6.2	14.3.1.1		
22.6.6.3	14.3.1.1		
22.6.6.4	14.2.2.2		
22.6.6.5	14.6.1		
22.7	---	‡	Heading: Footings
22.7.1	14.4.1.1		
22.7.2	14.3.2.2		
22.7.3	14.1.5		
22.7.4	14.3.2.1		
22.7.5	14.4.3.2.1		
22.7.6	---	‡	Heading: Shear in plain concrete footings
22.7.6.1	---	‡	List of applicable provisions
22.7.6.2	14.4.3.3.1		
	14.4.3.4.1		
22.7.7	14.4.3.1.1		
22.7.8	14.5.1.1		
22.8	---	‡	Heading: Pedestals
22.8.1	14.4.1.1		
22.8.2	14.3.3.1		
22.8.3	14.5.1.1		
22.9	---	‡	Heading: Precast members
22.9.1	4.12.1.1		
	14.2.3.1		
22.9.2	14.1.3		
22.9.3	14.2.3.2		
22.9.4	26.9.2(d)		
22.10	---	‡	Heading: Plain concrete in earthquake-resisting structures
22.10.1	14.1.4		

Appendix A - STRUT-AND-TIE MODELS

318-11	318-14	Note	Description
A.1	---	‡	Heading: Definitions
A.1	2.3		
A.2	---	‡	Heading: Strut-and-tie model design procedures
	23.1.2		
A.2.1	23.2.1		
	23.2.2		
	23.2.3		
A.2.2	23.2.4		
A.2.3	23.2.2		
A.2.4	23.2.5		
	23.2.6		
A.2.5	23.2.7		
A.2.6	23.3.1		
A.3	---	‡	Heading: Strength of struts
A.3.1	23.4.1		
	23.4.2		
A.3.2	23.4.3		
A.3.2.1	23.4.3		
A.3.2.2	23.4.3		
A.3.2.3	23.4.3		
A.3.2.4	23.4.3		
A.3.3	23.5.1		
A.3.3.1	23.5.3		
A.3.3.2	23.5.3.1		
A.3.4	23.4.4		
	23.4.1		
A.3.5	23.6.1		
	23.6.2		
	23.6.3		
	23.6.4		
A.4	---	‡	Heading: Strength of ties
	22.4.3.1	~	Added a tensile strength of a section for all members
A.4.1	23.7.1		
	23.7.2		
	23.7.3		
A.4.2	23.8.1		
A.4.3	23.8.2		
A.4.3.1	23.8.3(a)		
A.4.3.2	23.8.3(b)		
A.4.3.3	23.8.3(b)		
A.4.3.4	23.5.2		
A.5	---	‡	Heading: Strength of nodal zones
A.5.1	23.9.1		
	23.9.4		

Appendix A - STRUT-AND-TIE MODELS

318-11	318-14	Note	Description
A.5.2	23.9.2 23.9.3		
A.5.2.1	23.9.2		
A.5.2.2	23.9.2		
A.5.2.3	23.9.2		
A.5.3	23.9.5		

**Appendix B - ALTERNATIVE PROVISIONS FOR REINFORCED AND PRESTRESSED
CONCRETE FLEXURAL AND COMPRESSION MEMBERS**

318-11	318-14	Note	Description
App. B	---	~	Removed appendix

Appendix C - ALTERNATIVE LOAD AND STRENGTH REDUCTION FACTORS

318-11	318-14	Note	Description
App. C	---	~	Removed appendix

Appendix D - ANCHORING TO CONCRETE

318-11	318-14	Note	Description
D.1	2.3		
D.2	---	‡	Heading: Scope
D.2.1	17.1.1		
D.2.2	17.1.2		
D.2.3	17.1.3 26.7.1(a)		
D.2.4	17.1.4		
D.3	---	‡	Heading: General requirements
D.3.1	17.2.1		
D.3.1.1	17.2.1.1		
D.3.2	17.2.2		
D.3.3	---	‡	Heading: Seismic design requirements
D.3.3.1	17.2.3.1		
D.3.3.2	17.2.3.2		
D.3.3.3	17.2.3.3		
D.3.3.4	---	‡	Heading: Requirements for tensile loading
D.3.3.4.1	17.2.3.4.1		
D.3.3.4.2	17.2.3.4.2		
D.3.3.4.3	17.2.3.4.3		
D.3.3.4.4	17.2.3.4.4		
D.3.3.4.5	17.2.3.4.5		
D.3.3.5	---	‡	Heading: Requirements for shear loading
D.3.3.5.1	17.2.3.5.1		
D.3.3.5.2	17.2.3.5.2		
D.3.3.5.3	17.2.3.5.3		
D.3.3.5.4	17.2.3.5.4		
D.3.3.6	17.2.3.6		
D.3.3.7	17.2.3.7		
D.3.4	17.2.4		
D.3.5	17.2.5		
D.3.6	17.2.6		
D.3.7	17.2.7		
D.4	---	‡	Heading: General requirements for strength of anchors
D.4.1	17.3.1		
D.4.1.1	17.3.1.1		
Table D.4.1.1	Table 17.3.1.1		
D.4.1.2	17.3.1.2		
D.4.1.3	17.3.1.3		
D.4.2	17.3.2		
D.4.2.1	17.3.2.1		
D.4.2.2	17.3.2.2		
D.4.2.3	17.3.2.3		
D.4.3	17.3.3		
D.4.4	---	~	Remove information related to Appendix C

Appendix D - ANCHORING TO CONCRETE

318-11	318-14	Note	Description
D.5	---	‡	Heading: Design requirements for tensile loading
D.5.1	---	‡	Heading: Steel strength of anchor in tension
D.5.1.1	17.4.1.1		
D.5.1.2	17.4.1.2		
D.5.2	---	‡	Heading: Concrete breakout strength of anchor in tension
D.5.2.1	17.4.2.1		
D.5.2.2	17.4.2.2		
D.5.2.3	17.4.2.3		
D.5.2.4	17.4.2.4		
D.5.2.5	17.4.2.5		
D.5.2.6	17.4.2.6		
D.5.2.7	17.4.2.7		
D.5.2.8	17.4.2.8		
D.5.2.9	17.4.2.9		
D.5.3	---	‡	Heading: Pullout strength of cast-in, post-installed expansion and undercut anchors in tension
D.5.3.1	17.4.3.1		
D.5.3.2	17.4.3.2		
D.5.3.3	17.4.3.3		
D.5.3.4	17.4.3.4		
D.5.3.5	17.4.3.5		
D.5.3.6	17.4.3.6		
D.5.4	---	‡	Heading: Concrete side-face blowout strength of a headed anchor in tension
D.5.4.1	17.4.4.1		
D.5.4.2	17.4.4.2		
D.5.5	---	‡	Heading: Bond strength of adhesive anchor in tension
D.5.5.1	17.4.5.1		
D.5.5.2	17.4.5.2		
Table D.5.5.2	Table 17.4.5.2		
D.5.5.3	17.4.5.3		
D.5.5.4	17.4.5.4		
D.5.5.5	17.4.5.5		
D.6	---	‡	Heading: Design requirements for shear loading
D.6.1	---	‡	Heading: Steel strength of anchor in shear
D.6.1.1	17.5.1.1		
D.6.1.2	17.5.1.2		
D.6.1.3	17.5.1.3		
D.6.2	---	‡	Heading: Concrete breakout strength of anchor in shear
D.6.2.1	17.5.2.1		
D.6.2.2	17.5.2.2		
D.6.2.3	17.5.2.3		
D.6.2.4	17.5.2.4		
D.6.2.5	17.5.2.5		

Appendix D - ANCHORING TO CONCRETE

318-11	318-14	Note	Description
D.6.2.6	17.5.2.6		
D.6.2.7	17.5.2.7		
D.6.2.8	17.5.2.8		
D.6.2.9	17.5.2.9		
D.6.3	---	‡	Heading: Concrete pryout strength of anchor in shear
D.6.3.1	17.5.3.1		
D.7	---	‡	Heading: Interaction of tensile and shear forces
D.7	17.6		
D.7.1	17.6.1		
D.7.2	17.6.2		
D.7.3	17.6.3		
D.8	---	‡	Heading: Required edge distances, spacings, and thicknesses to preclude splitting failure
D.8	17.7		
D.8.1	17.7.1		
D.8.2	17.7.2		
D.8.3	17.7.3		
D.8.4	17.7.4		
D.8.5	17.7.5		
D.8.6	17.7.6		
D.8.7	17.7.7		
	26.7.1(c)		
D.9	---	‡	Heading: Installation and inspection of anchors
	17.8.1		
D.9.1	26.7.1(g)		
	26.7.2(a)		
	17.8.2		
D.9.2	26.13.3.3(f)		
	26.13.3.3(g)		
	17.8.2.1		
D.9.2.1	26.7.1(f)		
	26.7.1(j)		
	17.8.2.2		
D.9.2.2	26.7.1(i)		
	17.8.2.3		
D.9.2.3	26.7.1(i)		
	17.8.2.4		
D.9.2.4	26.7.1(h)		
	26.13.3.2(c)		



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