

TABLE OF CONTENTS

<p>CHAPTER 1 ADMINISTRATION..... 1-1</p> <p>Section</p> <p>101 General 1-1</p> <p>102 Purpose and Scope 1-2</p> <p>103 Application of Code 1-3</p> <p>104 Enforcement, Generally 1-5</p> <p>105 Local Building Department 1-6</p> <p>106 Powers and Duties of the Building Official 1-6</p> <p>107 Fees 1-7</p> <p>108 Application for Permit 1-7</p> <p>109 Construction Documents 1-9</p> <p>110 Permits 1-10</p> <p>111 Registered Design Professional Services 1-11</p> <p>112 Workmanship, Materials and Equipment 1-11</p> <p>113 Inspections 1-12</p> <p>114 Stop Work Orders 1-13</p> <p>115 Violations 1-13</p> <p>116 Certificates of Occupancy 1-14</p> <p>117 Temporary and Moved Buildings and Structures; Demolition 1-14</p> <p>118 Buildings and Structures Becoming Unsafe During Construction 1-15</p> <p>119 Appeals 1-16</p> <p>CHAPTER 2 DEFINITIONS..... 2-1</p> <p>Section</p> <p>201 General 2-1</p> <p>202 Definitions 2-1</p> <p>CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION..... 3-1</p> <p>Section</p> <p>301 General 3-1</p> <p>302 Classification 3-1</p> <p>303 Assembly Group A 3-1</p> <p>304 Business Group B 3-2</p> <p>305 Educational Group E 3-2</p> <p>306 Factory Group F 3-2</p> <p>307 High-hazard Group H 3-3</p> <p>308 Institutional Group I 3-12</p> <p>309 Mercantile Group M 3-14</p> <p>310 Residential Group R 3-14</p> <p>311 Storage Group S 3-47</p>	<p>312 Utility and Miscellaneous Group U 3-48</p> <p>CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY..... 4-1</p> <p>Section</p> <p>401 Scope 4-1</p> <p>402 Covered Mall and Open Mall Buildings 4-1</p> <p>403 High-rise Buildings 4-4</p> <p>404 Atriums 4-7</p> <p>405 Underground Buildings 4-8</p> <p>406 Motor-vehicle-related Occupancies 4-9</p> <p>407 Group I-2 4-13</p> <p>408 Group I-3 4-14</p> <p>409 Motion Picture Projection Rooms 4-16</p> <p>410 Stages, Platforms and Technical Production Areas 4-17</p> <p>411 Special Amusement Buildings 4-19</p> <p>412 Aircraft-related Occupancies 4-20</p> <p>413 Combustible Storage 4-22</p> <p>414 Hazardous Materials 4-22</p> <p>415 Groups H-1, H-2, H-3, H-4 and H-5 4-27</p> <p>416 Application of Flammable Finishes 4-39</p> <p>417 Drying Rooms 4-39</p> <p>418 Organic Coatings 4-39</p> <p>419 Live/work Units 4-40</p> <p>420 Groups I-1, R-1, R-2, R-3 4-40</p> <p>421 Hydrogen Cutoff Rooms 4-40</p> <p>422 Ambulatory Health Care Facilities 4-41</p> <p>423 Storm Shelters 4-41</p> <p>424 Manufactured Homes and Industrialized Buildings 4-42</p> <p>425 Aboveground Liquid Fertilizer Tanks 4-43</p> <p>CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS 5-1</p> <p>Section</p> <p>501 General 5-1</p> <p>502 Definitions 5-1</p> <p>503 General Building Height and Area Limitations . 5-1</p> <p>504 Building Height 5-1</p> <p>505 Mezzanines 5-3</p> <p>506 Building Area Modifications 5-4</p> <p>507 Unlimited Area Buildings 5-5</p>
---	--

TABLE OF CONTENTS

508 Mixed Use and Occupancy 5-6
 509 Special Provisions 5-9

CHAPTER 6 TYPES OF CONSTRUCTION 6-1

Section
 601 General 6-1
 602 Construction Classification 6-1
 603 Combustible Material in
 Type I and II Construction..... 6-3

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES 7-1

Section
 701 General 7-1
 702 Definitions 7-1
 703 Fire-resistance Ratings and Fire Tests 7-2
 704 Fire-resistance Rating of
 Structural Members 7-3
 705 Exterior Walls..... 7-5
 706 Fire Walls 7-9
 707 Fire Barriers 7-11
 708 Shaft Enclosures..... 7-12
 709 Fire Partitions..... 7-15
 710 Smoke Barriers..... 7-15
 711 Smoke Partitions 7-16
 712 Horizontal Assemblies..... 7-16
 713 Penetrations 7-17
 714 Fire-resistant Joint Systems..... 7-20
 715 Opening Protectives..... 7-20
 716 Ducts and Air Transfer Openings 7-24
 717 Concealed Spaces..... 7-28
 718 Fire-resistance Requirements for Plaster 7-30
 719 Thermal- and Sound-insulating Materials 7-30
 720 Prescriptive Fire Resistance..... 7-31
 721 Calculated Fire Resistance..... 7-32

CHAPTER 8 INTERIOR FINISHES..... 8-1

Section
 801 General 8-1
 802 Definitions 8-1
 803 Wall and Ceiling Finishes 8-1
 804 Interior Floor Finish..... 8-4
 805 Combustible Materials in Types I
 and II Construction 8-4
 806 Decorative Materials and Trim 8-4
 807 Insulation 8-5

808 Acoustical Ceiling Systems..... 8-5

CHAPTER 9 FIRE PROTECTION SYSTEMS ... 9-1

Section
 901 General 9-1
 902 Definitions 9-1
 903 Automatic Sprinkler Systems 9-4
 904 Alternative Automatic
 Fire-extinguishing Systems..... 9-9
 905 Standpipe Systems 9-10
 906 Portable Fire Extinguishers 9-13
 907 Fire Alarm and Detection Systems 9-15
 908 Emergency Alarm Systems 9-24
 909 Smoke Control Systems..... 9-25
 910 Smoke and Heat Vents..... 9-32
 911 Fire Command Center 9-33
 912 Fire Department Connections 9-34
 913 Fire Pumps 9-35
 914 Emergency Responder Safety Features..... 9-35
 915 In-Building Emergency
 Communications Coverage 9-35

CHAPTER 10 MEANS OF EGRESS..... 10-1

Section
 1001 Administration 10-1
 1002 Definitions 10-1
 1003 General Means of Egress..... 10-2
 1004 Occupant Load 10-3
 1005 Egress Width..... 10-5
 1006 Means of Egress Illumination 10-5
 1007 Accessible Means of Egress 10-6
 1008 Doors, Gates and Turnstiles..... 10-8
 1009 Stairways 10-14
 1010 Ramps..... 10-17
 1011 Exit Signs 10-18
 1012 Handrails..... 10-19
 1013 Guards..... 10-20
 1014 Exit Access..... 10-21
 1015 Exit and Exit Access Doorways 10-22
 1016 Exit Access Travel Distance 10-23
 1017 Aisles 10-24
 1018 Corridors..... 10-25
 1019 Egress Balconies 10-26
 1020 Exits 10-26
 1021 Number of Exits and Continuity 10-26

1022	Exit Enclosures	10-27	1405	Installation of Wall Coverings	14-3
1023	Exit Passageways	10-29	1406	Combustible Materials on the Exterior Side of Exterior Walls	14-7
1024	Luminous Egress Path Markings	10-30	1407	Metal Composite Materials (MCM)	14-8
1025	Horizontal Exits	10-31	1408	Exterior Insulation and Finish Systems (EIFS)	14-9
1026	Exterior Exit Ramps and Stairways	10-32			
1027	Exit Discharge	10-32			
1028	Assembly	10-33			
1029	Emergency Escape and Rescue	10-38			
CHAPTER 11 ACCESSIBILITY 11-1			CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES 15-1		
Section			Section		
1101	General	11-1	1501	General	15-1
1102	Definitions	11-1	1502	Definitions	15-1
1103	Scoping Requirements	11-1	1503	Weather Protection	15-1
1104	Accessible Route	11-2	1504	Performance Requirements	15-2
1105	Accessible Entrances	11-3	1505	Fire Classification	15-3
1106	Parking and Passenger Loading Facilities	11-4	1506	Materials	15-3
1107	Dwelling Units and Sleeping Units	11-5	1507	Requirements for Roof Coverings	15-4
1108	Special Occupancies	11-8	1508	Roof Insulation	15-13
1109	Other Features and Facilities	11-10	1509	Rooftop Structures	15-14
1110	Signage	11-13	1510	Reroofing	15-15
CHAPTER 12 INTERIOR ENVIRONMENT 12-1			CHAPTER 16 STRUCTURAL DESIGN 16-1		
Section			Section		
1201	General	12-1	1601	General	16-1
1202	Definitions	12-1	1602	Definitions and Notations	16-1
1203	Ventilation	12-1	1603	Construction Documents	16-2
1204	Temperature Control	12-2	1604	General Design Requirements	16-3
1205	Lighting	12-2	1605	Load Combinations	16-6
1206	Yards or Courts	12-3	1606	Dead Loads	16-7
1207	Sound Transmission	12-3	1607	Live Loads	16-7
1208	Interior Space Dimensions	12-4	1608	Snow Loads	16-13
1209	Access to Unoccupied Spaces	12-4	1609	Wind Loads	16-13
1210	Surrounding Materials	12-4	1610	Soil Lateral Loads	16-29
CHAPTER 13 ENERGY EFFICIENCY 13-1			1611 Rain Loads 16-30		
Section			1612 Flood Loads 16-36		
1301	General	13-1	1613 Earthquake Loads 16-38		
CHAPTER 14 EXTERIOR WALLS 14-1			1614 Structural Integrity 16-43		
Section			CHAPTER 17 STRUCTURAL TESTS AND SPECIAL INSPECTIONS 17-1		
1401	General	14-1	Section		
1402	Definitions	14-1	1701	General	17-1
1403	Performance Requirements	14-1	1702	Definitions	17-1
1404	Materials	14-2	1703	Approvals	17-1
			1704	Special Inspections	17-2
			1705	Statement of Special Inspections	17-13

TABLE OF CONTENTS

1706 Special Inspections for Wind Requirements . 17-15
 1707 Special Inspections for Seismic Resistance . . 17-15
 1708 Structural Testing for Seismic Resistance . . . 17-16
 1709 Contractor Responsibility 17-17
 1710 Structural Observations 17-17
 1711 Design Strengths of Materials 17-17
 1712 Alternative Test Procedure 17-17
 1713 Test Safe Load 17-18
 1714 In-situ Load Tests 17-18
 1715 Preconstruction Load Tests 17-18
 1716 Material and Test Standards 17-19

CHAPTER 18 SOILS AND FOUNDATIONS..... 18-1

Section

1801 General 18-1
 1802 Definitions 18-1
 1803 Geotechnical Investigations 18-1
 1804 Excavation, Grading and Fill 18-3
 1805 Dampproofing and Waterproofing 18-4
 1806 Presumptive Load-bearing Values of Soils 18-5
 1807 Foundation Walls, Retaining Walls and
 Embedded Posts and Poles 18-6
 1808 Foundations 18-12
 1809 Shallow Foundations 18-16
 1810 Deep Foundations 18-17

CHAPTER 19 CONCRETE..... 19-1

Section

1901 General 19-1
 1902 Definitions 19-1
 1903 Specifications for Tests and Materials 19-1
 1904 Durability Requirements 19-1
 1905 Concrete Quality, Mixing and Placing 19-3
 1906 Formwork, Embedded Pipes and
 Construction Joints 19-4
 1907 Details of Reinforcement 19-4
 1908 Modifications to ACI 318 19-4
 1909 Structural Plain Concrete 19-7
 1910 Minimum Slab Provisions 19-7
 1911 Anchorage to Concrete—Allowable
 Stress Design 19-8
 1912 Anchorage to Concrete—Strength Design 19-8
 1913 Shotcrete 19-9
 1914 Reinforced Gypsum Concrete 19-10
 1915 Concrete-filled Pipe Columns 19-10

CHAPTER 20 ALUMINUM 20-1

Section

2001 General 20-1
 2002 Materials 20-1

CHAPTER 21 MASONRY..... 21-1

Section

2101 General 21-1
 2102 Definitions and Notations 21-1
 2103 Masonry Construction Materials 21-4
 2104 Construction 21-5
 2105 Quality Assurance 21-6
 2106 Seismic Design 21-7
 2107 Allowable Stress Design 21-7
 2108 Strength Design of Masonry 21-8
 2109 Empirical Design of Masonry 21-8
 2110 Glass Unit Masonry 21-10
 2111 Masonry Fireplaces 21-10
 2112 Masonry Heaters 21-12
 2113 Masonry Chimneys 21-13

CHAPTER 22 STEEL..... 22-1

Section

2201 General 22-1
 2202 Definitions 22-1
 2203 Identification and Protection of Steel
 for Structural Purposes 22-1
 2204 Connections 22-1
 2205 Structural Steel 22-1
 2206 Steel Joists 22-2
 2207 Steel Cable Structures 22-3
 2208 Steel Storage Racks 22-3
 2209 Cold-formed Steel 22-3
 2210 Cold-formed Steel Light-frame Construction . 22-3

CHAPTER 23 WOOD 23-1

Section

2301 General 23-1
 2302 Definitions 23-1
 2303 Minimum Standards and Quality 23-2
 2304 General Construction Requirements 23-6
 2305 General Design Requirements for
 Lateral-force-resisting Systems 23-16
 2306 Allowable Stress Design 23-18
 2307 Load and Resistance Factor Design 23-19
 2308 Conventional Light-frame Construction 23-19

CHAPTER 24 GLASS AND GLAZING 24-1

Section

2401 General 24-1

2402 Definitions 24-1

2403 General Requirements for Glass 24-1

2404 Wind, Snow, Seismic and
Dead Loads on Glass 24-1

2405 Sloped Glazing and Skylights 24-3

2406 Safety Glazing 24-4

2407 Glass in Handrails and Guards 24-6

2408 Glazing in Athletic Facilities..... 24-6

2409 Glass in Elevator Hoistways and
Elevator Cars 24-7

**CHAPTER 25 GYPSUM BOARD
AND PLASTER..... 25-1**

Section

2501 General 25-1

2502 Definitions 25-1

2503 Inspection 25-1

2504 Vertical and Horizontal Assemblies 25-1

2505 Shear Wall Construction 25-1

2506 Gypsum Board Materials..... 25-2

2507 Lathing and Plastering..... 25-2

2508 Gypsum Construction 25-2

2509 Gypsum Board in Showers and
Water Closets 25-3

2510 Lathing and Furring for Cement
Plaster (Stucco) 25-4

2511 Interior Plaster 25-4

2512 Exterior Plaster..... 25-5

2513 Exposed Aggregate Plaster 25-5

CHAPTER 26 PLASTIC 26-1

Section

2601 General 26-1

2602 Definitions 26-1

2603 Foam Plastic Insulation 26-1

2604 Interior Finish and Trim..... 26-4

2605 Plastic Veneer..... 26-5

2606 Light-transmitting Plastics..... 26-5

2607 Light-transmitting Plastic Wall Panels 26-6

2608 Light-transmitting Plastic Glazing 26-7

2609 Light-transmitting Plastic Roof Panels..... 26-7

2610 Light-transmitting Plastic Skylight Glazing... 26-8

2611 Light-transmitting Plastic Interior Signs 26-8

2612 Fiber Reinforced Polymer and
Fiberglass Reinforced Polymer..... 26-9

2613 Reflective Plastic Core Insulation..... 26-10

CHAPTER 27 ELECTRICAL..... 27-1

Section

2701 General 27-1

2702 Emergency and Standby Power Systems 27-1

CHAPTER 28 MECHANICAL SYSTEMS..... 28-1

Section

2801 General 28-1

CHAPTER 29 PLUMBING SYSTEMS..... 29-1

Section

2901 General 29-1

2902 Minimum Plumbing Facilities..... 29-1

2903 Toilet Room Requirements 29-4

**CHAPTER 30 ELEVATORS AND
CONVEYING SYSTEMS 30-1**

Section

3001 General 30-1

3002 Hoistway Enclosures 30-1

3003 Emergency Operations..... 30-1

3004 Hoistway Venting..... 30-2

3005 Conveying Systems 30-2

3006 Machine Rooms 30-3

3007 Fire Service Access Elevator..... 30-3

3008 Occupant Evacuation Elevators..... 30-4

CHAPTER 31 SPECIAL CONSTRUCTION 31-1

Section

3101 General 31-1

3102 Membrane Structures..... 31-1

3103 Temporary Structures..... 31-2

3104 Pedestrian Walkways and Tunnels 31-2

3105 Awnings and Canopies..... 31-3

3106 Marquees..... 31-4

3107 Signs 31-4

3108 Telecommunication and Broadcast Towers ... 31-4

3109 Swimming Pool Enclosures and
Safety Devices 31-4

3110 Automatic Vehicular Gates 31-5

TABLE OF CONTENTS

CHAPTER 32 ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY 32-1

Section

3201 General 32-1
 3202 Encroachments 32-1

CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION 33-1

Section

3301 General 33-1
 3302 Construction Safeguards 33-1
 3303 Demolition 33-1
 3304 Site Work 33-1
 3305 Sanitary (Deleted) 33-1
 3306 Protection of Pedestrians 33-1
 3307 Protection of Adjoining Property 33-3
 3308 Temporary Use of Streets, Alleys and Public Property 33-3
 3309 Fire Extinguishers 33-3
 3310 Means of Egress 33-3
 3311 Standpipes 33-3
 3312 Automatic Sprinkler System 33-4

CHAPTER 34 EXISTING BUILDINGS AND STRUCTURES 34-1

Section

3401 General 34-1
 3402 Definitions 34-1
 3403 Additions (Deleted) 34-1
 3404 Alterations (Deleted) 34-1
 3405 Repairs (Deleted) 34-1
 3406 Fire Escapes (Deleted) 34-1
 3407 Glass Replacement 34-1
 3408 Change of Occupancy (Deleted) 34-2
 3409 Historic Buildings 34-2
 3410 Moved Structures (Deleted) 34-2
 3411 Accessibility for Existing Buildings 34-2
 3412 Compliance Alternatives 34-4
 3413 Retrofit Requirements 34-13

CHAPTER 35 REFERENCED STANDARDS 35-1

APPENDIX E SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS E-1

Section

E101 General E-1
 E102 Definitions E-1

E103 Accessible Route E-1
 E104 Special Occupancies E-1
 E105 Other Features and Facilities E-2
 E106 Telephones E-2
 E107 Signage E-3
 E108 Bus Stops E-4
 E109 Transportation Facilities and Stations E-4
 E110 Airports E-5
 E111 Referenced Standards E-5

APPENDIX F RODENTPROOFING F-1

Section

F101 General F-1

APPENDIX G FLOOD-RESISTANT CONSTRUCTION G-1

Section

G101 Administration G-1
 G102 Applicability G-1
 G103 Powers and Duties G-1
 G104 Permits G-2
 G105 Variances G-2
 G201 Definitions G-3
 G301 Subdivisions G-4
 G401 Site Improvement G-4
 G501 Manufactured Homes G-4
 G601 Recreational Vehicles G-4
 G701 Tanks G-5
 G801 Other Building Work G-5
 G901 Temporary Structures and Temporary Storage G-5
 G1001 Utility and Miscellaneous Group U G-5
 G1101 Referenced Standards G-6

APPENDIX H SIGNS H-1

Section

H101 General H-1
 H102 Definitions H-1
 H103 Location H-1
 H104 Identification (Deleted) H-1
 H105 Design and Construction H-1
 H106 Electrical H-2
 H107 Combustible Materials H-2
 H108 Animated Devices H-2
 H109 Ground Signs H-2
 H110 Roof Signs H-2

H111 Wall Signs H-3
H112 Projecting Signs..... H-3
H113 Marquee Signs..... H-3
H114 Portable Signs H-4
H115 Referenced Standards (Deleted)..... H-4

APPENDIX I PATIO COVERS I-1

Section

I101 General I-1
I102 Definitions..... I-1
I103 Exterior Openings..... I-1
I104 Structural Provisions..... I-1

INDEX INDEX-1

