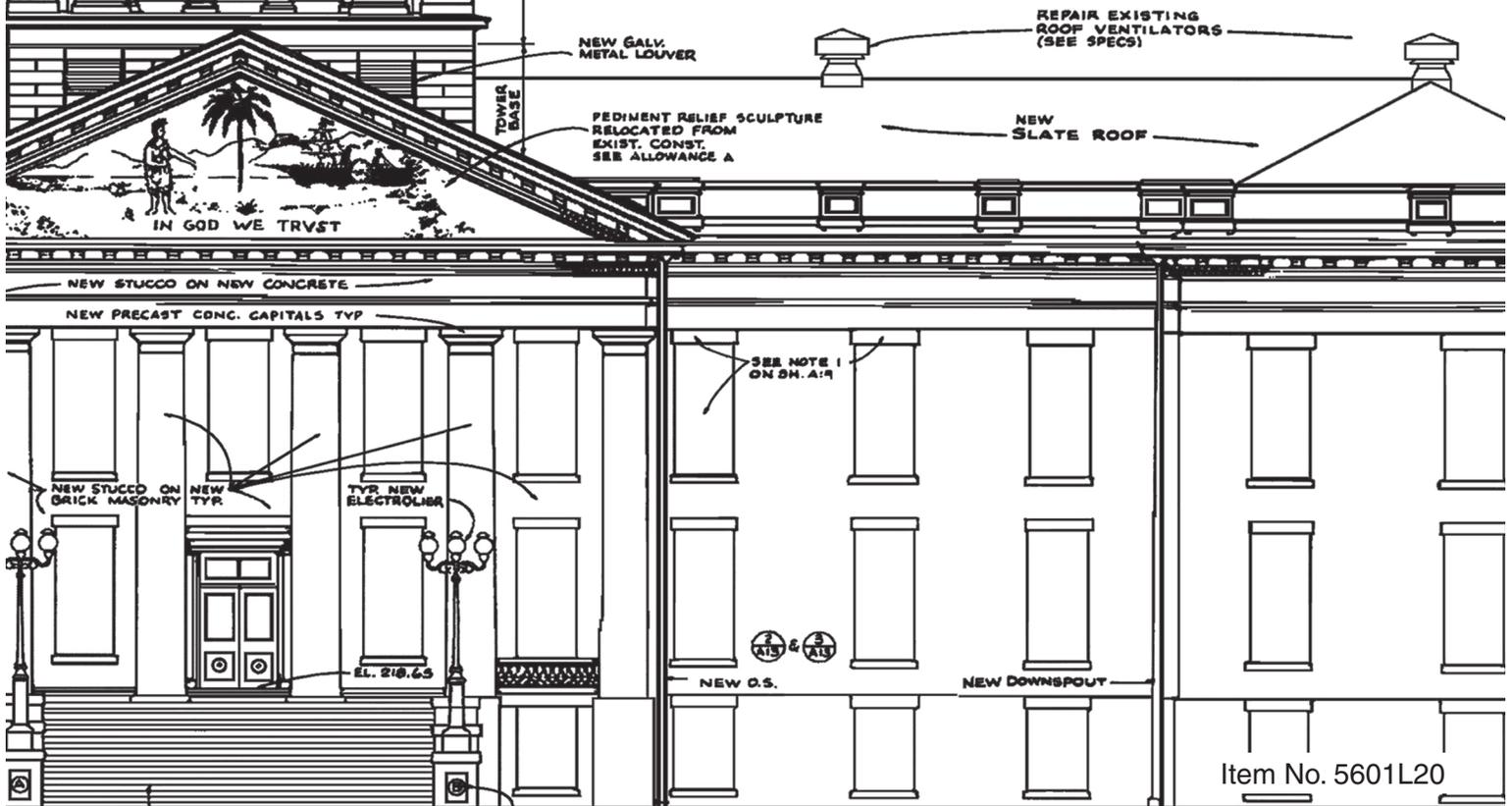


# FLORIDA BUILDING CODE

Seventh Edition  
(2020)

## *Building*



Florida Building Code, Building, 7th Edition (2020)

First Printing: July 2020

ISBN: 978-1-952468-09-4

COPYRIGHT © 2020  
by  
INTERNATIONAL CODE COUNCIL, INC.

ALL RIGHTS RESERVED. This *Florida Building Code, Building, 7th Edition* (2020) contains substantial copyrighted materials from the *Florida Building Code, Building, 6th Edition* (2017) and the 2018 *International Building Code*<sup>®</sup>, third printing, which **are** copyrighted works owned by the International Code Council, Inc. Without advance written permission from the copyright owner, no part of this work may be reproduced, distributed or transmitted in any form or by any means, including, without limitation, electronic, optical or mechanical means (by way of example, and not limitation, photocopying or recording by or in an information storage retrieval system). For information on use rights and permissions, please contact: ICC Publications, 4051 Flossmoor Road, Country Club Hills, IL 60478. Phone 1-888-ICC-SAFE (422-7233).

Trademarks: International Code Council<sup>®</sup>, the International Code Council<sup>®</sup> logo, ICC<sup>®</sup>, the ICC<sup>®</sup> logo, International Building Code<sup>®</sup>, IBC<sup>®</sup> and other names and trademarks appearing in this book are registered trademarks or trademarks of the International Code Council, Inc., and/or its licensors (as applicable).

# PREFACE

## History

The State of Florida first mandated statewide building codes during the 1970s at the beginning of the modern construction boom. The first law required all municipalities and counties to adopt and enforce one of the four state-recognized model codes known as the “state minimum building codes.” During the early 1990s a series of natural disasters, together with the increasing complexity of building construction regulation in vastly changed markets, led to a comprehensive review of the state building code system. The study revealed that building code adoption and enforcement was inconsistent throughout the state and those local codes thought to be the strongest proved inadequate when tested by major hurricane events. The consequences of the building codes system failure were devastation to lives and economies and a statewide property insurance crisis. The response was a reform of the state building construction regulatory system that placed emphasis on uniformity and accountability.

The 1998 Florida Legislature amended chapter 553, *Florida Statutes*, Building Construction Standards, to create a single state building code that is enforced by local governments. As of March 1, 2002, the *Florida Building Code*, which is developed and maintained by the Florida Building Commission, supersedes all local building codes. The *Florida Building Code* is updated every three years and may be amended in the interim in accordance with criteria set out in section 553.73, Florida Statutes.

## Scope

The *Florida Building Code* is based on national model building codes and national consensus standards, in addition to Florida-specific provisions. The code incorporates all building construction-related regulations for public and private buildings in the State of Florida other than those specifically exempted by section 553.73, Florida Statutes. It has been harmonized with the *Florida Fire Prevention Code*, which is developed and maintained by the Department of Financial Services, Office of the State Fire Marshal, to establish unified and consistent standards.

The model codes used for the *Florida Building Code*, 7th Edition (2020) include: the 2018 editions of the *International Building Code*®; the *International Plumbing Code*®; the *International Mechanical Code*®; the *International Fuel Gas Code*®; the *International Residential Code*®; the *International Existing Building Code*®; the *International Energy Conservation Code*®; the *National Electrical Code*, 2017 edition; or substantive criteria from ASHRAE Standard 90.1-2016. State and local codes adopted and incorporated into the code include the *Florida Building Code*, *Accessibility*, and special hurricane protection standards for the High-Velocity Hurricane Zone.

The code is composed of nine main volumes: the *Florida Building Code, Building*, which also includes state regulations for licensed facilities; the *Florida Building Code, Plumbing*; the *Florida Building Code, Mechanical*; the *Florida Building Code, Fuel Gas*; the *Florida Building Code, Existing Building*; the *Florida Building Code, Residential*; the *Florida Building Code, Energy Conservation*; the *Florida Building Code, Accessibility* and the *Florida Building Code, Test Protocols for High-Velocity Hurricane Zones*. Chapter 27 of the *Florida Building Code, Building*, adopts the *National Electrical Code*, NFPA 70, by reference.

Under certain strictly defined conditions, local governments may amend technical requirements to be more stringent than the code. All local technical amendments to the *Florida Building Code* must be adopted in accordance with the requirements of section 553.73(4), Florida Statutes, and reported to the Florida Building Commission, then posted on [www.floridabuilding.org](http://www.floridabuilding.org) in legislative format for 30 days prior to being enforced. Local amendments to the *Florida Building Code* and the *Florida Fire Prevention Code* may be obtained from the Florida Building Commission website, or from the Florida Department of Business and Professional Regulation or the Florida Department of Financial Services, Office of the State Fire Marshal, respectively.

## Adoption and Maintenance

An updated edition of the *Florida Building Code* is adopted triennially by the Florida Building Commission. The code may also be amended between updates in order to incorporate the Florida Building Commission's interpretations into the code, address conflicts, and update standards, among other statutorily specified reasons. Minimum requirements for permitting, plans review and inspections are established by the code, and local jurisdictions may adopt additional administrative requirements that are more stringent. Local technical amendments are subject to strict criteria established by section 553.73(4), Florida Statutes. They are subject to Commission review during each triennial update of the code, and may be either adopted into the updated edition of the code or repealed. Local technical amendments are also subject to appeal according to the procedures established by section 553.73(4), Florida Statutes.

Eleven Technical Advisory Committees (TACs), which are constituted consistent with American National Standards Institute (ANSI) Guidelines, review proposed code changes and clarifications of the code and make recommendations to the Commission. These TACs whose membership is constituted consistent with American National Standards Institute (ANSI) Guidelines include: Accessibility; Joint Building Fire (a joint committee of the Commission and the State Fire Marshal); Building Structural; Code Administration/Enforcement; Electrical; Energy; Mechanical; Plumbing and Fuel Gas; Roofing; Swimming Pool; and Special Occupancy (state agency construction and facility licensing regulations).

The Commission may only issue official code interpretations using procedures set out by Chapter 120, Florida Statutes. To obtain such an interpretation, a request for a declaratory statement must be made to the Florida Building Commission in a manner that establishes a clear set of facts and circumstances and identifies the section of the code in question. Requests are analyzed by staff, reviewed by the appropriate Technical Advisory Committee, and sent to the Florida Building Commission for action. These interpretations establish precedents for situations having similar facts and circumstances and are typically incorporated into the code in the next code amendment cycle. Non-binding interpretations are available from the Building Officials Association of Florida's website ([www.BOAF.net](http://www.BOAF.net)) and a binding interpretation process is available online at [www.floridabuilding.org](http://www.floridabuilding.org).

## Marginal Markings

Solid vertical lines in the margins within the body of the code indicate a change from the requirements of the *Florida Building Code, Building*, 6th Edition (2017) to the *Florida Building Code, Building*, 7th Edition (2020) effective December 31, 2020.

Sections deleted from the base code are designated "Reserved" in order to maintain the structure of the base code.

## Italicized Terms

Selected terms set forth in Chapter 2, Definitions, are italicized where they appear in code text. Such terms are not italicized where the definition set forth in Chapter 2 does not impart the intended meaning in the use of the term. The terms selected have definitions that the user should read carefully to facilitate better understanding of the code.

## Acknowledgments

The *Florida Building Code* is produced through the efforts and contributions of building designers, contractors, product manufacturers, regulators and other interested parties who participate in the Florida Building Commission's consensus processes, Commission staff and the participants in the national model code development processes.

# TABLE OF CONTENTS

<p><b>CHAPTER 1 SCOPE AND ADMINISTRATION . . . . 1</b></p> <p><b>PART 1—SCOPE AND APPLICATION . . . . . 1</b></p> <p>Section</p> <p>101 General . . . . . 1</p> <p>102 Applicability . . . . . 1</p> <p><b>PART 2—ADMINISTRATION AND ENFORCEMENT . . . . . 4</b></p> <p>103 Department of Building Safety (Reserved) . . . . . 4</p> <p>104 Duties and Powers of Building Official . . . . . 4</p> <p>105 Permits . . . . . 4</p> <p>106 Floor and Roof Design Loads . . . . . 10</p> <p>107 Submittal Documents . . . . . 11</p> <p>108 Temporary Structures and Uses . . . . . 15</p> <p>109 Fees . . . . . 15</p> <p>110 Inspections . . . . . 15</p> <p>111 Certificate of Occupancy . . . . . 19</p> <p>112 Service Utilities . . . . . 19</p> <p>113 Board of Appeals (Reserved) . . . . . 19</p> <p>114 Violations (Reserved) . . . . . 19</p> <p>115 Stop Work Order . . . . . 20</p> <p>116 Unsafe Structures and Equipment (Reserved) . . . 20</p> <p>117 Variances in Flood Hazard Areas . . . . . 20</p> <p><b>CHAPTER 2 DEFINITIONS . . . . . 21</b></p> <p>Section</p> <p>201 General . . . . . 21</p> <p>202 Definitions . . . . . 21</p> <p><b>CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION . . . . . 53</b></p> <p>Section</p> <p>301 Scope . . . . . 53</p> <p>302 Occupancy Classification and Use Designation . . . . . 53</p> <p>303 Assembly Group A . . . . . 53</p> <p>304 Business Group B . . . . . 54</p> <p>305 Educational Group E . . . . . 54</p> <p>306 Factory Group F . . . . . 55</p> <p>307 High-hazard Group H . . . . . 55</p> <p>308 Institutional Group I . . . . . 60</p>	<p>309 Mercantile Group M . . . . . 61</p> <p>310 Residential Group R . . . . . 62</p> <p>311 Storage Group S . . . . . 62</p> <p>312 Utility and Miscellaneous Group U . . . . . 63</p> <p><b>CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE . . . . . 65</b></p> <p>Section</p> <p>401 Scope . . . . . 65</p> <p>402 Covered Mall and Open Mall Buildings . . . . . 65</p> <p>403 High-rise Buildings . . . . . 69</p> <p>404 Atriums . . . . . 72</p> <p>405 Underground Buildings . . . . . 73</p> <p>406 Motor-vehicle-related Occupancies . . . . . 74</p> <p>407 Group I-2 . . . . . 78</p> <p>408 Group I-3 . . . . . 82</p> <p>409 Motion Picture Projection Rooms . . . . . 84</p> <p>410 Stages, Platforms and Technical Production Areas . . . . . 85</p> <p>411 Special Amusement Buildings . . . . . 87</p> <p>412 Aircraft-related Occupancies . . . . . 87</p> <p>413 Combustible Storage . . . . . 91</p> <p>414 Hazardous Materials . . . . . 91</p> <p>415 Groups H-1, H-2, H-3, H-4 and H-5 . . . . . 94</p> <p>416 Application of Flammable Finishes . . . . . 104</p> <p>417 Drying Rooms . . . . . 104</p> <p>418 Organic Coatings . . . . . 104</p> <p>419 Live/work Units . . . . . 105</p> <p>420 Groups I-1, R-1, R-2, R-3 and R-4 . . . . . 105</p> <p>421 Hydrogen Fuel Gas Rooms . . . . . 106</p> <p>422 Ambulatory Care Facilities . . . . . 107</p> <p>423 Storm Shelters . . . . . 107</p> <p>424 Children’s Play Structures . . . . . 108</p> <p>425 Hyperbaric Facilities . . . . . 108</p> <p>426 Combustible Dusts, Grain Processing and Storage . . . . . 108</p> <p>427 through 448 Reserved . . . . . 109</p> <p>449 Hospitals . . . . . 109</p> <p>450 Nursing Homes . . . . . 116</p> <p>451 Ambulatory Surgical Centers . . . . . 125</p> <p>452 Birthing Centers . . . . . 129</p>
--	---

**TABLE OF CONTENTS**

453 State Requirements for Educational Facilities . . 130

454 Swimming Pools and Bathing  
Places (Public and Private) . . . . . 149

455 Public Lodging Establishments . . . . . 180

456 Public Food Service Establishments . . . . . 181

457 Mental Health Programs . . . . . 182

458 Manufactured Buildings . . . . . 191

459 Boot Camps for Children . . . . . 193

460 Mausoleums and Columbariums . . . . . 193

461 Transient Public Lodging Establishments . . . . . 195

462 Use of Asbestos in New Public Buildings or  
Buildings Newly Constructed for Lease to  
Government Entities—Prohibition . . . . . 195

463 Adult Day Care . . . . . 195

464 Assisted Living Facilities . . . . . 196

465 Control of Radiation Hazards . . . . . 199

466 Day Care Occupancies . . . . . 204

467 Hospice Inpatient Facilities and Units and  
Hospice Residential Facilities . . . . . 206

468 Schools, Colleges and Universities . . . . . 209

469 Office Surgery Suite . . . . . 211

**CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS . . . . . 217**

Section

501 General . . . . . 217

502 Definitions . . . . . 217

503 General Building Height and Area Limitations . 217

504 Building Height and Number of Stories . . . . . 218

505 Mezzanines and Equipment Platforms . . . . . 218

506 Building Area . . . . . 221

507 Unlimited Area Buildings . . . . . 225

508 Mixed Use and Occupancy . . . . . 227

509 Incidental Uses . . . . . 229

510 Special Provisions . . . . . 230

**CHAPTER 6 TYPES OF CONSTRUCTION . . . . . 233**

Section

601 General . . . . . 233

602 Construction Classification . . . . . 233

603 Combustible Material in  
Types I and II Construction . . . . . 234

**CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES . . . . . 237**

Section

701 General . . . . . 237

702 Definitions . . . . . 237

703 Fire-resistance Ratings and Fire Tests . . . . . 237

704 Fire-resistance Rating of  
Structural Members . . . . . 238

705 Exterior Walls . . . . . 240

706 Fire Walls . . . . . 244

707 Fire Barriers . . . . . 247

708 Fire Partitions . . . . . 248

709 Smoke Barriers . . . . . 249

710 Smoke Partitions . . . . . 250

711 Floor and Roof Assemblies . . . . . 251

712 Vertical Openings . . . . . 251

713 Shaft Enclosures . . . . . 253

714 Penetrations . . . . . 254

715 Fire-resistant Joint Systems . . . . . 257

716 Opening Protectives . . . . . 258

717 Ducts and Air Transfer Openings . . . . . 264

718 Concealed Spaces . . . . . 269

719 Fire-resistance Requirements for Plaster . . . . . 271

720 Thermal- and Sound-insulating Materials . . . . . 271

721 Prescriptive Fire Resistance . . . . . 272

722 Calculated Fire Resistance . . . . . 296

**CHAPTER 8 INTERIOR FINISHES . . . . . 325**

Section

801 General . . . . . 325

802 Definitions . . . . . 325

803 Wall and Ceiling Finishes . . . . . 325

804 Interior Floor Finish . . . . . 328

805 Combustible Materials in Types I  
and II Construction . . . . . 328

806 Decorative Materials and Trim . . . . . 328

807 Insulation . . . . . 329

808 Acoustical Ceiling Systems . . . . . 329

**CHAPTER 9 FIRE PROTECTION SYSTEMS . . . 331**

Section

901 General . . . . . 331

902 Definitions . . . . . 331

903 Automatic Sprinkler Systems . . . . . 332

904 Alternative Automatic  
Fire-extinguishing Systems . . . . . 339

905 Standpipe Systems . . . . . 341

906 Portable Fire Extinguishers . . . . . 344

907 Fire Alarm and Detection Systems . . . . . 345

908 Emergency Alarm Systems . . . . . 356

909 Smoke Control Systems . . . . . 356

910 Smoke and Heat Removal . . . . . 364

911 Fire Command Center . . . . . 365

912 Fire Department Connections . . . . . 366

913 Fire Pumps . . . . . 367

914 Emergency Responder Safety Features . . . . . 368

915 Carbon Monoxide Detection . . . . . 368

916 Gas Detection Systems . . . . . 368

917 Emergency Responder Radio Coverage . . . . . 369

**CHAPTER 10 MEANS OF EGRESS . . . . . 371**

Section

1001 Administration . . . . . 371

1002 Definitions . . . . . 371

1003 General Means of Egress . . . . . 371

1004 Occupant Load . . . . . 373

1005 Means of Egress Sizing . . . . . 374

1006 Number of Exits and  
Exit Access Doorways . . . . . 375

1007 Exit and Exit Access  
Doorway Configuration . . . . . 378

1008 Means of Egress Illumination . . . . . 379

1009 Accessible Means of Egress . . . . . 380

1010 Doors, Gates and Turnstiles . . . . . 380

1011 Stairways . . . . . 389

1012 Ramps . . . . . 392

1013 Exit Signs . . . . . 393

1014 Handrails . . . . . 394

1015 Guards . . . . . 395

1016 Exit Access . . . . . 397

1017 Exit Access Travel Distance . . . . . 398

1018 Aisles . . . . . 398

1019 Exit Access Stairways and Ramps . . . . . 399

1020 Corridors . . . . . 399

1021 Egress Balconies . . . . . 401

1022 Exits . . . . . 401

1023 Interior Exit Stairways and Ramps . . . . . 402

1024 Exit Passageways . . . . . 403

1025 Luminous Egress Path Markings . . . . . 404

1026 Horizontal Exits . . . . . 406

1027 Exterior Exit Stairways and Ramps . . . . . 406

1028 Exit Discharge . . . . . 407

1029 Assembly . . . . . 408

1030 Emergency Escape and Rescue . . . . . 415

**CHAPTER 11 ACCESSIBILITY . . . . . 417**

Section

1101 General . . . . . 417

1102 Definitions (Reserved) . . . . . 417

1103 Scoping Requirements (Reserved) . . . . . 417

1104 Accessible Route (Reserved) . . . . . 417

1105 Accessible Entrances (Reserved) . . . . . 417

1106 Parking and Passenger  
Loading Facilities (Reserved) . . . . . 417

1107 Dwelling Units and  
Sleeping Units (Reserved) . . . . . 417

1108 Special Occupancies (Reserved) . . . . . 417

1109 Other Features and Facilities (Reserved) . . . . . 417

1110 Recreational Facilities (Reserved) . . . . . 417

1111 Signage (Reserved) . . . . . 417

**CHAPTER 12 INTERIOR ENVIRONMENT . . . . . 419**

Section

1201 General . . . . . 419

1202 Definitions . . . . . 419

1203 Ventilation . . . . . 419

1204 Temperature Control . . . . . 421

1205 Lighting . . . . . 421

1206 Yards or Courts . . . . . 422

1207 Sound Transmission . . . . . 422

1208 Interior Space Dimensions . . . . . 422

1209 Access to Unoccupied Spaces . . . . . 423

1210 Toilet and Bathroom Requirements . . . . . 423

**CHAPTER 13 ENERGY EFFICIENCY . . . . . 425**

Section

1301 General . . . . . 425

**CHAPTER 14 EXTERIOR WALLS . . . . . 427**

Section

1401 General . . . . . 427

1402 Definitions . . . . . 427

1403 Performance Requirements . . . . . 427

**TABLE OF CONTENTS**

1404 Materials . . . . . 428  
 1405 Installation of Wall Coverings . . . . . 429  
 1406 Combustible Materials on the  
     Exterior Side of Exterior Walls . . . . . 435  
 1407 Metal Composite Materials (MCM) . . . . . 436  
 1408 Exterior Insulation and  
     Finish Systems (EIFS) . . . . . 437  
 1409 High-pressure Decorative Exterior-grade  
     Compact Laminates (HPL) . . . . . 437  
 1410 Plastic Composite Decking . . . . . 438

**CHAPTER 15 ROOF ASSEMBLIES AND  
 ROOFTOP STRUCTURES . . . . . 439**

Section  
 1501 General . . . . . 439  
 1502 Definitions . . . . . 439  
 1503 Weather Protection . . . . . 440  
 1504 Performance Requirements . . . . . 441  
 1505 Fire Classification . . . . . 442  
 1506 Materials . . . . . 443  
 1507 Requirements for Roof Coverings . . . . . 443  
 1508 Roof Insulation . . . . . 451  
 1509 Radiant Barriers Installed Above Deck . . . . . 452  
 1510 Rooftop Structures . . . . . 452  
 1511 Existing Roofing . . . . . 455  
 1512 High-Velocity Hurricane Zones—General . . . . . 455  
 1513 High-Velocity Hurricane Zones—Definitions . . . . . 457  
 1514 High-Velocity Hurricane Zones—  
     Weather Protection . . . . . 458  
 1515 High-Velocity Hurricane Zones—  
     Performance Requirements . . . . . 459  
 1516 High-Velocity Hurricane Zones—  
     Fire Classification . . . . . 460  
 1517 High-Velocity Hurricane Zones—Materials . . . . . 460  
 1518 High-Velocity Hurricane Zones—Roof  
     Coverings with Slopes 2:12 or Greater . . . . . 461  
 1519 High-Velocity Hurricane Zones—Roof  
     Coverings with Slopes Less than 2:12 . . . . . 464  
 1520 High-Velocity Hurricane Zones—  
     Roof Insulation . . . . . 466  
 1521 High-Velocity Hurricane Zones—Reroofing . . . . . 467  
 1522 High-Velocity Hurricane Zones—Rooftop  
     Structures and Components . . . . . 468  
 1523 High-Velocity Hurricane Zones—Testing . . . . . 469  
 1524 High-Velocity Hurricane Zones—Required  
     Owner’s Notification for Roofing  
     Considerations . . . . . 472

1525 High-Velocity Hurricane Zones—Uniform  
 Permit Application . . . . . 473

**CHAPTER 16 STRUCTURAL DESIGN . . . . . 479**

Section  
 1601 General . . . . . 479  
 1602 Definitions and Notations . . . . . 479  
 1603 Construction Documents . . . . . 479  
 1604 General Design Requirements . . . . . 481  
 1605 Load Combinations . . . . . 484  
 1606 Dead Loads . . . . . 485  
 1607 Live Loads . . . . . 485  
 1608 Snow Loads . . . . . 492  
 1609 Wind Loads . . . . . 493  
 1610 Soil Lateral Loads . . . . . 503  
 1611 Rain Loads . . . . . 504  
 1612 Flood Loads . . . . . 504  
 1613 Earthquake Loads . . . . . 513  
 1614 Atmospheric Ice Loads . . . . . 526  
 1615 Structural Integrity . . . . . 526  
 1616 High-Velocity Hurricane Zones—General,  
     Deflection, Volume Changes and Minimum  
     Loads . . . . . 527  
 1617 High-Velocity Hurricane Zones—  
     Roof Drainage (Reserved) . . . . . 528  
 1618 High-Velocity Hurricane Zones—Special  
     Load Considerations . . . . . 528  
 1619 High-Velocity Hurricane Zones—Live  
     Load Reductions (Reserved) . . . . . 529  
 1620 High-Velocity Hurricane Zones—  
     Wind Loads . . . . . 529  
 1621 High-Velocity Hurricane Zones—  
     Overturning Moment and Uplift . . . . . 529  
 1622 High-Velocity Hurricane Zones—  
     Screen Enclosures . . . . . 529  
 1623 High-Velocity Hurricane Zones—Live Loads  
     Posted and Occupancy Permits (Reserved) . . . . . 530  
 1624 High-Velocity Hurricane Zones—  
     Foundation Design (Reserved) . . . . . 530  
 1625 High-Velocity Hurricane Zones—  
     Load Tests . . . . . 530  
 1626 High-Velocity Hurricane Zones—Impact  
     Tests for Wind-borne Debris . . . . . 530

**CHAPTER 17 SPECIAL INSPECTIONS  
 AND TESTS . . . . . 535**

Section  
 1701 General . . . . . 535

1702 Definitions . . . . . 535  
 1703 Approvals . . . . . 535  
 1704 Special Inspections and Tests,  
     Contractor Responsibility  
     and Structural Observation (Reserved) . . . . . 536  
 1705 Required Special Inspections  
     and Tests (Reserved) . . . . . 536  
 1706 Design Strengths of Materials . . . . . 536  
 1707 Alternative Test Procedure . . . . . 536  
 1708 In-situ Load Tests . . . . . 536  
 1709 Preconstruction Load Tests . . . . . 537  
 1710 Anchorage . . . . . 540

**CHAPTER 18 SOILS AND FOUNDATIONS . . . . . 543**

Section

1801 General . . . . . 543  
 1802 Definitions . . . . . 543  
 1803 Geotechnical Investigations . . . . . 543  
 1804 Excavation, Grading and Fill . . . . . 545  
 1805 Dampproofing and Waterproofing . . . . . 546  
 1806 Presumptive Load-bearing Values of Soils . . . . . 547  
 1807 Foundation Walls, Retaining Walls and  
     Embedded Posts and Poles . . . . . 548  
 1808 Foundations . . . . . 554  
 1809 Shallow Foundations . . . . . 557  
 1810 Deep Foundations . . . . . 558  
 1811 through 1815 Reserved . . . . . 571  
 1816 Termite Protection . . . . . 571  
 1817 High-Velocity Hurricane Zones—  
     Excavations (Reserved) . . . . . 572  
 1818 High-Velocity Hurricane Zones—  
     Bearing Capacity of Soil (Reserved) . . . . . 572  
 1819 High-Velocity Hurricane Zones—  
     Soil Bearing Foundations (Reserved) . . . . . 572  
 1820 High-Velocity Hurricane Zones—  
     Concrete Slabs on Fill (Reserved) . . . . . 572  
 1821 High-Velocity Hurricane Zones—  
     Monolithic Footings (Reserved) . . . . . 572  
 1822 High-Velocity Hurricane Zones—  
     Pile Foundations (Reserved) . . . . . 572  
 1823 High-Velocity Hurricane Zones—  
     Wood Piles (Reserved) . . . . . 572  
 1824 High-Velocity Hurricane Zones—  
     Precast Concrete Piles (Reserved) . . . . . 572  
 1825 High-Velocity Hurricane Zones—  
     Prestressed Precast  
     Concrete Piles (Reserved) . . . . . 572

1826 High-Velocity Hurricane Zones—  
     Cast-in-Place (Reserved) . . . . . 572  
 1827 High-Velocity Hurricane Zones—  
     Rolled Structural Shapes (Reserved) . . . . . 572  
 1828 High-Velocity Hurricane Zones—  
     Special Piles or Special  
     Conditions (Reserved) . . . . . 572  
 1829 High-Velocity Hurricane Zones—  
     Load Tests on Piles (Reserved) . . . . . 572  
 1830 High-Velocity Hurricane Zones—  
     Foundation Walls and  
     Grade Beams (Reserved) . . . . . 572  
 1831 High-Velocity Hurricane Zones—  
     Grades Under Buildings (Reserved) . . . . . 572  
 1832 High-Velocity Hurricane Zones—  
     Retaining Walls (Reserved) . . . . . 572  
 1833 High-Velocity Hurricane Zones—  
     Seawalls and Bulkheads (Reserved) . . . . . 572  
 1834 High-Velocity Hurricane Zones—  
     Soil Improvement (Reserved) . . . . . 572

**CHAPTER 19 CONCRETE . . . . . 573**

Section

1901 General . . . . . 573  
 1902 Definitions . . . . . 573  
 1903 Specifications for Tests and Materials . . . . . 573  
 1904 Durability Requirements . . . . . 573  
 1905 Modifications to ACI 318 . . . . . 574  
 1906 Structural Plain Concrete . . . . . 576  
 1907 Minimum Slab Provisions . . . . . 576  
 1908 Shotcrete . . . . . 577  
 1909 Special Wind Provisions for Concrete . . . . . 578  
 1910 through 1916 Reserved . . . . . 578  
 1917 Lightweight Insulating Concrete Roofs . . . . . 578  
 1918 Reserved . . . . . 579  
 1919 High-Velocity Hurricane Zones—  
     General (Reserved) . . . . . 579  
 1920 High-Velocity Hurricane Zones—  
     Standards (Reserved) . . . . . 580  
 1921 High-Velocity Hurricane Zones—  
     Definitions (Reserved) . . . . . 580  
 1922 High-Velocity Hurricane Zones—  
     Materials (Reserved) . . . . . 580  
 1923 High-Velocity Hurricane Zones—  
     Concrete Quality (Reserved) . . . . . 580  
 1924 High-Velocity Hurricane Zones—  
     Mixing and Placing Concrete (Reserved) . . . . . 580

**TABLE OF CONTENTS**

1925 High-Velocity Hurricane Zones—  
Formwork, Embedded Pipes and  
Construction Joints (Reserved) . . . . . 580

1926 High-Velocity Hurricane Zones—  
Details of Reinforcement (Reserved) . . . . . 580

1927 High-Velocity Hurricane Zones—  
Precast Concrete Units (Reserved) . . . . . 580

1928 High-Velocity Hurricane Zones—  
Prestressed Concrete (Reserved) . . . . . 580

1929 High-Velocity Hurricane Zones—  
Pneumatically Placed  
Concrete (Shotcrete) (Reserved) . . . . . 580

**CHAPTER 20 ALUMINUM . . . . . 581**

Section

2001 General . . . . . 581

2002 Materials . . . . . 581

2003 High-Velocity Hurricane Zones—Aluminum . . 583

**CHAPTER 21 MASONRY . . . . . 585**

Section

2101 General . . . . . 585

2102 Definitions and Notations . . . . . 585

2103 Masonry Construction Materials . . . . . 586

2104 Construction . . . . . 587

2105 Quality Assurance . . . . . 587

2106 Seismic Design . . . . . 587

2107 Allowable Stress Design . . . . . 587

2108 Strength Design of Masonry . . . . . 588

2109 Dry-stack Masonry . . . . . 588

2110 Glass Unit Masonry . . . . . 588

2111 Masonry Fireplaces . . . . . 588

2112 Masonry Heaters . . . . . 591

2113 Masonry Chimneys . . . . . 591

2114 Termite Inspection . . . . . 596

2115 Special Wind Provisions for Masonry . . . . . 596

2116 and 2117 Reserved . . . . . 596

2118 High-Velocity Hurricane Zones—  
Design (Reserved) . . . . . 596

2119 High-Velocity Hurricane Zones—  
Quality, Tests and Approvals . . . . . 596

2120 High-Velocity Hurricane Zones—Allowable  
Unit Stresses in Unit  
Masonry (Reserved) . . . . . 597

2121 High-Velocity Hurricane Zones—  
Construction Details . . . . . 597

2122 High-Velocity Hurricane Zones—  
Reinforced Unit Masonry . . . . . 600

**CHAPTER 22 STEEL . . . . . 603**

Section

2201 General . . . . . 603

2202 Definitions . . . . . 603

2203 Identification and Protection of Steel  
for Structural Purposes . . . . . 603

2204 Connections . . . . . 603

2205 Structural Steel . . . . . 603

2206 Composite Structural Steel and  
Concrete Structures . . . . . 604

2207 Steel Joists . . . . . 604

2208 Steel Cable Structures . . . . . 605

2209 Steel Storage Racks . . . . . 605

2210 Cold-formed Steel . . . . . 605

2211 Cold-formed Steel Light-frame  
Construction . . . . . 605

2212 Gable End Walls . . . . . 606

2213 Reserved . . . . . 606

2214 High-Velocity Hurricane Zones—  
General—Steel Construction . . . . . 606

2215 High-Velocity Hurricane Zones—Material . . . . 607

2216 High-Velocity Hurricane Zones—  
Design Loads . . . . . 607

2217 High-Velocity Hurricane Zones—  
Minimum Thickness of Material . . . . . 607

2218 High-Velocity Hurricane Zones—  
Connections (Reserved) . . . . . 607

2219 High-Velocity Hurricane Zones—  
Tubular Columns . . . . . 607

2220 High-Velocity Hurricane Zones—  
Protection of Metal (Reserved) . . . . . 607

2221 High-Velocity Hurricane Zones—  
General—Open Web Steel Joists . . . . . 608

2222 High-Velocity Hurricane Zones—  
Cold-formed Steel Construction . . . . . 608

2223 High-Velocity Hurricane Zones—  
Preengineered, Prefabricated Metal Building  
Systems and Components (Preengineered  
Structures) . . . . . 609

2224 High-Velocity Hurricane Zones—  
Chain Link Fences . . . . . 610

**CHAPTER 23 WOOD . . . . . 611**

Section

2301 General . . . . . 611

2302 Definitions . . . . . 611

2303 Minimum Standards and Quality . . . . . 611

2304 General Construction Requirements. . . . . 615

2305 General Design Requirements for  
Lateral Force-resisting Systems . . . . . 629

2306 Allowable Stress Design. . . . . 630

2307 Load and Resistance Factor Design . . . . . 636

2308 Conventional Light-frame  
Construction (Reserved). . . . . 636

2309 Wood Frame Construction Manual . . . . . 637

2310 through 2313 Reserved . . . . . 637

2314 High-Velocity Hurricane Zones. . . . . 638

2315 High-Velocity Hurricane Zones—Quality . . . . . 639

2316 High-Velocity Hurricane Zones—  
Sizes (Reserved). . . . . 640

2317 High-Velocity Hurricane Zones—  
Unit Stresses. . . . . 640

2318 High-Velocity Hurricane Zones—  
Vertical Framing. . . . . 640

2319 High-Velocity Hurricane Zones—  
Horizontal Framing . . . . . 641

2320 High-Velocity Hurricane Zones—  
Firestops (Reserved). . . . . 646

2321 High-Velocity Hurricane Zones—  
Anchorage. . . . . 646

2322 High-Velocity Hurricane Zones—  
Sheathing . . . . . 647

2323 High-Velocity Hurricane Zones—  
Furring (Reserved) . . . . . 649

2324 High-Velocity Hurricane Zones—  
Connectors . . . . . 649

2325 High-Velocity Hurricane Zones—  
Wood Supporting Masonry . . . . . 649

2326 High-Velocity Hurricane Zones—  
Protection of Wood. . . . . 649

2327 High-Velocity Hurricane Zones—  
Fire-retardant Wood (Reserved). . . . . 650

2328 High-Velocity Hurricane Zones—  
Wood Fences . . . . . 650

2329 High-Velocity Hurricane Zones—  
Fire-retardant-treated  
Shakes and Shingles (Reserved). . . . . 650

2330 High-Velocity Hurricane Zones—  
Wood Blocking. . . . . 650

**CHAPTER 24 GLASS AND GLAZING . . . . . 651**

Section

2401 General. . . . . 651

2402 Definitions . . . . . 651

2403 General Requirements for Glass . . . . . 651

2404 Wind, Snow, Seismic and  
Dead Loads on Glass . . . . . 651

2405 Sloped Glazing and Skylights . . . . . 653

2406 Safety Glazing . . . . . 654

2407 Glass in Handrails and Guards. . . . . 656

2408 Glazing in Athletic Facilities . . . . . 657

2409 Glass in Walkways, Elevator Hoistways  
and Elevator Cars. . . . . 657

2410 High-Velocity Hurricane Zones—General . . . . . 658

2411 High-Velocity Hurricane Zones—Windows,  
Doors, Glass and Glazing. . . . . 658

2412 High-Velocity Hurricane Zones—  
Glass Veneer . . . . . 660

2413 High-Velocity Hurricane Zones—Storm Shutters/  
External Protective Devices. . . . . 661

2414 High-Velocity Hurricane Zones—  
Curtain Walls. . . . . 661

2415 High-Velocity Hurricane Zones—Structural  
Glazing Systems. . . . . 662

**CHAPTER 25 GYPSUM BOARD,  
GYPSUM PANEL PRODUCTS  
AND PLASTER . . . . . 665**

Section

2501 General. . . . . 665

2502 Definitions . . . . . 665

2503 Inspection. . . . . 665

2504 Vertical and Horizontal Assemblies . . . . . 665

2505 Shear Wall Construction . . . . . 665

2506 Gypsum Board and  
Gypsum Panel Product Materials. . . . . 665

2507 Lathing and Plastering . . . . . 665

2508 Gypsum Construction . . . . . 666

2509 Showers and Water Closets . . . . . 668

2510 Lathing and Furring for Cement  
Plaster (Stucco) . . . . . 668

2511 Interior Plaster . . . . . 669

2512 Exterior Plaster. . . . . 669

2513 Exposed Aggregate Plaster . . . . . 670

**TABLE OF CONTENTS**

2514 Reinforced Gypsum Concrete . . . . . 670

2515 High-Velocity Hurricane Zones—  
Lathing (Reserved) . . . . . 670

2516 High-Velocity Hurricane Zones—  
Plaster (Reserved) . . . . . 670

2517 High-Velocity Hurricane Zones—  
Stucco (Reserved) . . . . . 670

2518 High-Velocity Hurricane Zones—  
Gypsum Board Products and  
Accessory Items (Reserved) . . . . . 671

2519 High-Velocity Hurricane Zones—  
Suspended and Furred Ceilings (Reserved) . . 671

2520 High-Velocity Hurricane Zones—  
Asbestos (Reserved) . . . . . 671

2521 High-Velocity Hurricane Zones—  
Tile (Reserved) . . . . . 671

**CHAPTER 26 PLASTIC . . . . . 673**

Section

2601 General . . . . . 673

2602 Definitions . . . . . 673

2603 Foam Plastic Insulation . . . . . 673

2604 Interior Finish and Trim . . . . . 679

2605 Plastic Veneer . . . . . 679

2606 Light-transmitting Plastics . . . . . 680

2607 Light-transmitting Plastic Wall Panels . . . . . 681

2608 Light-transmitting Plastic Glazing . . . . . 682

2609 Light-transmitting Plastic Roof Panels . . . . . 682

2610 Light-transmitting Plastic Skylight Glazing . . . 683

2611 Light-transmitting Plastic Interior Signs . . . . . 683

2612 Plastic Composites . . . . . 683

2613 Fiber-reinforced Polymer . . . . . 684

2614 Reflective Plastic Core Insulation . . . . . 685

2615 High-Velocity Hurricane Zones—Plastics . . . . . 685

**CHAPTER 27 ELECTRICAL . . . . . 687**

Section

2701 General . . . . . 687

2702 Emergency and Standby Power Systems . . . . . 687

**CHAPTER 28 MECHANICAL SYSTEMS . . . . . 689**

Section

2801 General . . . . . 689

**CHAPTER 29 PLUMBING SYSTEMS . . . . . 691**

Section

2901 General . . . . . 691

2902 Minimum Plumbing Facilities . . . . . 691

**CHAPTER 30 ELEVATORS AND  
CONVEYING SYSTEMS . . . . . 695**

Section

3001 General . . . . . 695

3002 Hoistway Enclosures . . . . . 696

3003 Emergency Operations . . . . . 697

3004 Conveying Systems . . . . . 697

3005 Machine Rooms . . . . . 698

3006 Elevator Lobbies and  
Hoistway Opening Protection . . . . . 698

3007 Fire Service Access Elevator . . . . . 699

3008 Occupant Evacuation Elevators . . . . . 701

3009 Elevator Accessibility Requirements for  
the Physically Handicapped . . . . . 703

3010 Serial Numbers . . . . . 703

3011 Electrolysis Protection for Underground  
Hydraulic Elevator Cylinders . . . . . 704

3012 Alterations to Electric and Hydraulic  
Elevators and Escalators . . . . . 704

3013 Clearance Requirements between Elevator  
Doors for Elevators Inside a  
Private Residence . . . . . 704

**CHAPTER 31 SPECIAL CONSTRUCTION . . . . . 707**

Section

3101 General . . . . . 707

3102 Membrane Structures . . . . . 707

3103 Temporary Structures . . . . . 708

3104 Pedestrian Walkways and Tunnels . . . . . 708

3105 Awnings and Canopies . . . . . 710

3106 Marquees . . . . . 711

3107 Signs . . . . . 711

3108 Telecommunication and Broadcast Towers . . . . 711

3109 Structures Seaward of a Coastal Construction  
Control Line . . . . . 712

3110 Automatic Vehicular Gates . . . . . 714

3111 Solar Energy Systems . . . . . 715

3112 Deposit of Material in Tidewater Regulated . . . 715

3113 Lighting, Mirrors, Landscaping . . . . . 716

3114 Airport Noise ..... 716  
 3115 Exterior Elevated Flooring Systems ..... 717

**CHAPTER 32 ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY ..... 719**

Section

3201 General ..... 719  
 3202 Encroachments ..... 719

**CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION ..... 721**

Section

3301 General ..... 721  
 3302 Construction Safeguards ..... 721  
 3303 Demolition ..... 721  
 3304 Site Work ..... 721  
 3305 Sanitary ..... 722  
 3306 Protection of Pedestrians ..... 722  
 3307 Protection of Adjoining Property ..... 723  
 3308 Temporary Use of Streets, Alleys and Public Property ..... 723  
 3309 Fire Extinguishers ..... 723  
 3310 Means of Egress ..... 723  
 3311 Standpipes ..... 723  
 3312 Automatic Sprinkler System ..... 724  
 3313 Water Supply for Fire Protection ..... 724

**CHAPTER 34 RESERVED ..... 725**

**CHAPTER 35 REFERENCED STANDARDS ..... 727**

**CHAPTER 36 FLORIDA FIRE PREVENTION CODE ..... 761**

**APPENDIX A EMPLOYEE QUALIFICATIONS ..... 763**

Section

A101 Building Official Qualifications ..... 763

**APPENDIX B CHAPTER 9B-52 F.A.C. FLORIDA STANDARD FOR PASSIVE RADON-RESISTANT CONSTRUCTION ..... 765**

**APPENDIX C FLORIDA STANDARD FOR MITIGATION OF RADON IN EXISTING BUILDINGS ..... 773**

**APPENDIX D FIRE DISTRICTS ..... 781**

Section

D101 General ..... 781  
 D102 Building Restrictions ..... 781  
 D103 Changes to Buildings ..... 782  
 D104 Buildings Located Partially in the Fire District ..... 782  
 D105 Exceptions to Restrictions in Fire District ..... 782  
 D106 Referenced Standards ..... 783

**APPENDIX E FLORIDA STANDARD FOR RADON-RESISTANT NEW COMMERCIAL CONSTRUCTION ..... 785**

**APPENDIX F RODENTPROOFING ..... 797**

Section

F101 General ..... 797

**APPENDIX G FLOOD-RESISTANT CONSTRUCTION (Reserved) ..... 799**

**APPENDIX H SIGNS ..... 801**

Section

H101 General ..... 801  
 H102 Definitions ..... 801  
 H103 Location ..... 801  
 H104 Identification ..... 801  
 H105 Design and Construction ..... 802  
 H106 Electrical ..... 802  
 H107 Combustible Materials ..... 802  
 H108 Animated Devices ..... 802  
 H109 Ground Signs ..... 802  
 H110 Roof Signs ..... 803  
 H111 Wall Signs ..... 803  
 H112 Projecting Signs ..... 803  
 H113 Marquee Signs ..... 804  
 H114 Portable Signs ..... 804  
 H115 Referenced Standards ..... 804

**APPENDIX I PATIO COVERS ..... 805**

Section

I101 General ..... 805  
 I102 Definition ..... 805  
 I103 Exterior Walls and Openings ..... 805

**TABLE OF CONTENTS**

I104 Height . . . . . 805  
I105 Structural Provisions . . . . . 805

**APPENDIX J GRADING . . . . . 807**

Section

J101 General . . . . . 807  
J102 Definitions . . . . . 807  
J103 Permits Required . . . . . 807  
J104 Permit Application and Submittals. . . . . 807  
J105 Inspections . . . . . 808  
J106 Excavations. . . . . 808  
J107 Fills. . . . . 808  
J108 Setbacks . . . . . 808  
J109 Drainage and Terracing . . . . . 810  
J110 Erosion Control . . . . . 810  
J111 Referenced Standards . . . . . 810

**APPENDIX K ADMINISTRATIVE  
PROVISIONS . . . . . 811**

Section

K101 General . . . . . 811  
K102 Applicability. . . . . 811  
K103 Permits . . . . . 811  
K104 Construction Documents . . . . . 812  
K105 Alternative Engineered Design. . . . . 812  
K106 Required Inspections . . . . . 812  
K107 Prefabricated Construction. . . . . 812  
K108 Testing . . . . . 813  
K109 Reconnection . . . . . 813  
K110 Condemning Electrical Systems. . . . . 813  
K111 Electrical Provisions. . . . . 813

**APPENDIX L EARTHQUAKE RECORDING  
INSTRUMENTATION. . . . . 815**

L101 General . . . . . 815

**APPENDIX M TSUNAMI-GENERATED FLOOD  
HAZARD . . . . . 817**

M101 Tsunami-generated Flood Hazard . . . . . 817  
M102 Referenced Standards . . . . . 817

**INDEX . . . . . 819**