

FLORIDA BUILDING CODE

EXISTING BUILDING

2005 Revisions

This package of replacement pages is designed to update the 1st edition of the Florida Existing Building Code® to the latest revisions. To update your existing code, replace sheets by page number. Place all these sheets in the code and remove any existing sheets per instructions contained herein.

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* supercedes all local building codes which are developed and maintained by the Florida Building Commission. It is updated every three years and may be amended annually to incorporate interpretations and clarifications.

Scope

The *Florida Building Code* is based on national model building codes and national consensus standards which are amended where necessary for Florida specific needs. 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 base codes for the 2004 edition of the *Florida Building Code* include: the *International Building Code*, 2003 edition; the *International Plumbing Code*, 2003 edition; the *International Mechanical Code*, 2003 edition; the *International Fuel Gas Code*, 2003 edition; the *International Residential Code*, 2003 edition; the *International Existing Building Code*, 2003 edition; the *National Electrical Code*, 2002 edition; the U. S. Department of Housing and Urban Development, Fair Housing Guidelines, and; substantive criteria from the American Society of Heating, Refrigerating and Air-conditioning Engineers' (ASHRAE) Standard 90.1-2001. State and local codes adopted and incorporated into the code include the *Florida Energy Efficiency Code for Building Construction*, the *Florida Accessibility Code for Building Construction* and special hurricane protection standards for the high-velocity hurricane zone.

The code is composed of six main volumes: the *Florida Building Code, Building*, which also includes Chapter 13 (energy efficiency) and Chapter 11 (accessibility) as well as state regulations for licensed facilities; the *Florida Building Code, Plumbing*; the *Florida Building Code, Mechanical*; the *Florida Building Code, Fuel Gas*; the *Florida Existing Building Code*; and the *Florida Building Code, Residential*. Chapter 27 of the *Florida Building Code, Building*, adopts the *National Electrical Code*, NFPA 70, by reference. Chapter 33 of the *Florida Building Code, Residential* adopts the *National Electrical Code Requirements for One- and Two-Family Dwellings*, NFPA 70A, by reference.

Under certain strictly defined conditions, local governments may amend requirements to be more stringent than the code. All local amendments to the *Florida Building Code* must be adopted by local ordinance and reported to the Florida Building Commission, then posted on the www.floridabuilding.org web site in Legislative format for a month before being enforced. Local amendments to the *Florida Building Code* and the *Florida Fire Prevention Code* may be obtained from the Florida Building Commission web site, or from the Florida Department of Community Affairs or the Florida Department of Financial Services, Office of the State Fire Marshal, respectively.

Adoption and Maintenance

The *Florida Building Code* is adopted and updated with new editions triennially by the Florida Building Commission. It is amended annually to incorporate interpretations, clarifications and to update standards. 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, Florida Statutes. They are subject to commission review and adoption into the code or repeal when the code is updated triennially and are subject to appeal to the Commission according to the procedures established by Section 553.73, Florida Statutes.

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

The Commission may only issue official code clarifications using procedures of Chapter 120, Florida Statutes. To obtain such a clarification, a request for a Declaratory Statement (DEC) 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 then the Florida Building Commission takes first action. Draft Declaratory Statements are subject to public comment and finalized by the Commission at its next meeting. These interpretations establish precedents for situations having similar facts and circumstances and are typically incorporated into the code in the next code amendment cycle.

Marginal Markings

Vertical lines in the margins within the body of the code indicate a change from the requirements of the base codes to the 2004 *Florida Building Code* effective October 1, 2005. Sections deleted from the base code are designated “Reserved.”

An asterisk (*) inserted in the margin indicates a change from the 2004 *Florida Building Code* to the 2005 *Florida Building Code* revisions filed with the Florida Department of State November 21, 2005.

Sections deleted from the base code are designated “Reserved.”

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 process.

CHAPTER 5

ALTERATIONS—LEVEL 1

SECTION 501 GENERAL

501.1 Scope. Level 1 alterations as described in Section 303 shall comply with the requirements of this chapter. Level 1 alterations to historic buildings shall comply with this chapter, except as modified in Chapter 10.

501.2 Conformance. An existing building or portion thereof shall not be altered such that the building becomes less safe or energy efficient than its existing condition. If in the alteration the current level of safety or sanitation is to be reduced, the portion altered shall conform to the requirements of the *Florida Building Code, Building*.

501.3 Flood hazard areas. See Section 401.4.

SECTION 502 RESERVED

SECTION 503 BUILDING ELEMENTS AND MATERIALS

503.1 Interior finishes. All newly installed interior finishes shall comply with the flame spread requirements of the *Florida Building Code, Building*.

503.2 Carpeting. New carpeting used as an interior floor finish material shall comply with the radiant flux requirements of the *Florida Building Code, Building*.

503.3 Materials and methods. All new work shall comply with materials and methods requirements in the *Florida Building Code* and the *Florida Fire Prevention Code* as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

503.3.1 Florida Building Code, Fuel Gas. The following sections of the *Florida Building Code, Fuel Gas* shall constitute the fuel gas materials and methods requirements for Level 1 alterations.

1. All of Chapter 3, entitled “General Regulations,” except Sections 303.7 and 306.
2. All of Chapter 4, entitled “Gas Piping Installations,” except Sections 401.8 and 402.3.
 - 2.1. Sections 401.8 and 402.3 shall apply when the work being performed increases the load on the system such that the existing pipe does not meet the size required by code. Existing systems that are modified shall not require resizing as long as the load on the system is not increased and the system length is not increased even if the altered system does not meet code minimums.
3. All of Chapter 5, entitled “Chimneys and Vents.”
4. All of Chapter 6, entitled “Specific Appliances.”

SECTION 504 FIRE PROTECTION

504.1 Level 1 alterations shall be done in a manner that maintains the level of fire protection provided.

SECTION 505 MEANS OF EGRESS

505.1 General. Means of egress for buildings undergoing alteration shall comply with the requirements of Section 501.1 and the scoping provisions of Chapter 1 where applicable.

Exception: Door and window dimensions. In residential dwellings and dwelling units, a maximum of 5 percent reduction in the clear opening dimensions of replacement doors and windows shall be allowed.

SECTION 506 ACCESSIBILITY

506.1 Accessibility shall be in accordance with Chapter 11 of the *Florida Building Code, Building*.

506.1.1 through 506.2 Reserved.

SECTION 507 STRUCTURAL

507.1 General. Where alteration work includes replacement of equipment that is supported by the building or where a reroofing permit is required, the structural provisions of this section shall apply.

507.2 Design criteria. Existing structural components supporting alteration work shall comply with this section.

Exception: Nonstructural alterations exclusive of fixtures and furniture, the cost of which does not exceed 25 percent of the replacement value of the existing building or structure, with the approval of the building official may be made of the same material of which the building or structure is constructed.

507.2.1 Replacement of roofing or equipment. Where replacement of roofing or equipment results in additional dead loads, structural components supporting such re-roofing or equipment shall comply with the vertical load requirements of the *Florida Building Code, Building*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings constructed in accordance with the conventional construction methods of the *Florida Building Code, Building* and where the additional dead load from the equipment is not increased by more than 5 percent.

507.2.2 Roof diaphragm. Where roofing materials are removed from more than 50 percent of the roof diaphragm of a building or section of a building where the

roof diaphragm is a part of the main windforce-resisting system the integrity of the roof diaphragm shall be evaluated and if found deficient because of insufficient or deteriorated connections, such connections shall be provided or replaced.

507.3 Replacement of windows and doors. The replacement of garage doors, exterior doors, skylight, operative and inoperative windows shall be designed and constructed to comply with Chapter 16 of the *Florida Building Code, Building*.

Exceptions:

1. Opening protection exception: For one- and two-family dwellings constructed under codes other than the *Florida Building Code* and located in wind-borne debris regions, the replacement of garage doors and exterior doors with glazing, sliding glass doors, glass patio doors, skylights, and operable and inoperable windows within any 12-month period shall not be required to have opening protection but shall be designed for wind pressures for enclosed buildings, provided the aggregate area of the glazing in the replaced components does not exceed 25 percent of the aggregate area of the glazed openings in the dwelling or dwelling unit.
2. Opening protection exception for High Velocity Hurricane Zones: For one-and two-family dwellings constructed under codes prior to September 1, 1994 the replacement of exterior doors with glazing, sliding glass doors, glass patio doors, skylights, and operable and inoperable windows within any 12 month period shall not be required to have opening protection provided the aggregate area of the glazing in the replaced components does not exceed 25 percent of the aggregate area of the glazed openings in the dwelling or dwelling unit.

507.4 Openings in sunrooms, enclosed balconies and enclosed porches constructed under existing roofs or decks are not required to be protected, provided the space is separated from the building interior by a wall and all openings in the separating wall are protected in accordance with Section 1609.1.4 of the *Florida Building Code, Building*. Such spaces shall be permitted to be designed as enclosed or partially enclosed. (High Velocity Hurricane Zones must comply with Chapter 16 of the *Florida Building Code, Building*.)

**SECTION 508
ELECTRICAL**

508.1 Residential R3 occupancies.

508.1.1 Existing wiring and equipment. Existing electrical wiring and equipment undergoing repair shall be permitted to be repaired or replaced with like material.

508.1.2 Replacement of receptacles. For replacement of nongrounding-type receptacles with grounding-type receptacles and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding-type receptacle

outlet shall be permitted to be grounded to any accessible point on the grounding electrode system or to any accessible point on the grounding electrode conductor, in accordance with Article 250-130 (C) of Chapter 27 of the *Florida Building Code, Building*.

508.1.3 Appliances. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the existing branch circuit for these appliances shall be permitted to be grounded to the grounded circuit conductor in accordance with Article 250-140 of Chapter 27 of the *Florida Building Code, Building*.

**SECTION 509
MECHANICAL**

509.1 General. Existing mechanical systems undergoing alteration shall comply with Section 301.11 of the *Florida Building Code, Mechanical*.

**SECTION 510
PLUMBING**

510.1 Materials. The following plumbing materials and supplies shall not be used:

1. Sheet and tubular copper and brass trap and tailpiece fittings less than the minimum wall thickness of .027 inches (0.69 mm).
2. Solder having more than 0.2-percent lead in the repair of potable water systems.
3. Water closets having a concealed trap seal or an unventilated space or having walls that are not thoroughly washed at each discharge in accordance with ASME A112.19.2 M.
4. The following types of joints shall be prohibited:
 - 4.1. Mastic or hot-pour bituminous joints.
 - 4.2. Joints made with fittings not approved for the specific installation.
 - 4.3. Joints between different diameter pipes made with elastomeric rolling O-rings.
 - 4.4. Solvent-cement joints between different types of plastic pipe.
 - 4.5. Saddle-type fittings.
5. The following types of traps are prohibited:
 - 5.1. Traps that depend on moving parts to maintain the seal.
 - 5.2. Bell traps.
 - 5.3. Crown-vented traps.
 - 5.4. Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed of an approved material that is resistant to corrosion and degradation.

510.2 Water closet replacement. When any water closet is replaced, the replacement water closet shall comply with the *Florida Building Code, Plumbing*. The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

Exception: Blowout design water closets [3.5 gallons (13 L) per flushing cycle].

SECTION 511 REROOFING

511.1 General. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 15 of the *Florida Building Code, Building*. Roof repairs to existing roofs and roof coverings shall comply with the provisions of this code.

Exception: Reroofing shall not be required to meet the minimum design slope requirement of $\frac{1}{4}$:12 in Section 1507 of the *Florida Building Code, Building* for roofs that provide positive roof drainage (high-velocity hurricane zones shall comply with Sections 1515.2.2.1 and 1515.2.2.2 of the *Florida Building Code, Building*).

511.2 Structural and construction loads. The structural roof components shall be capable of supporting the roof covering system and the material and equipment loads that will be encountered during installation of the roof covering system.

511.3 Recovering versus replacement. New roof coverings shall not be installed without first removing existing roof coverings where any of the following conditions occur:

1. When the old roofing is water-soaked or deteriorated to the point that it is not suitable as a base for additional roofing.
2. When blisters exist in any roofing, unless blisters are cut or scraped open and nailed down before applying additional roofing.
3. When the existing roof surface is gravel or the like, the gravel shall be thoroughly removed or all loose gravel removed and approved base material installed before applying additional roofing.
4. When existing roof is slate or the like.
5. When sheathing or supports are deteriorated to the point that the roof structural system is not substantial enough to support recovering.
6. When existing roof has two or more applications of any type roofing material. Conformance with this item shall make replacement mandatory.

Exceptions:

1. Building and structures located within the high-velocity hurricane zone shall comply with the provisions of Sections 1512 through 1525 of the *Florida Building Code, Building*.
2. When the structural deck is concrete and the existing roof is firmly attached to the deck,

then the roof shall be removed down to a minimum of three plies of moisture-free felts.

3. When otherwise approved by the building official.
4. Wood shingles or shakes shall not be placed over more than one application of wood or asphalt shingles. Wood shingles or shakes may be placed over existing shakes when installed in accordance with Cedar Shake and Shingle Bureau recommendations.

511.4 Roof recovering. Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place.

511.5 Reinstallation of materials. Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars and metal counterflashings shall not be reinstalled where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled (high-velocity hurricane zones shall comply with Sections 1512 through 1525 of the *Florida Building Code, Building*).

511.6 Flashings. Flashings shall be reconstructed in accordance with roof covering manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation (high-velocity hurricane zones shall comply with Sections 1512 through 1525 of the *Florida Building Code, Building*).

SECTION 512 ENERGY CONSERVATION

512.1 Minimum requirements. Alterations subject to this chapter shall comply with the requirements of Chapter 13 of the *Florida Building Code, Building*.

