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Advanced Course on the Significant Changes in Florida Building Code 8th Edition

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Introduction

Executive Summary

This course presents the most significant changes in Florida Building Code, Building, 8th edition (2023) which went into effect on December 31, 2023. In particular, this course covers the additions and/or modifications to the following chapters:

- Chapter 1: Scope and Administration;
- Chapter 4: Special Detailed Requirements Based on Occupancy and Use;
- Chapter 8: Interior Finishes and Decorative Materials;
- Chapter 10: Means of Egress;
- Chapter 14: Exterior Walls;
- Chapter 16: Structural Design;
- Chapter 29: Plumbing Systems; and
- Chapter 31: Safeguards During Construction.

While this course does not cover all the changes from the 7th edition of the Florida Building Code to the 8th edition, it presents the most significant amendments from the previous Florida Building Code (i.e. 7th Edition, 2020) to the current Florida Building Code (i.e. 8th Edition, 2023). The parts that have been added or modified in the latest edition are presented in *italics* and the parts that remain unchanged are underlined.

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, 8th Edition (2023) include: the 2021 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, 2020 edition; or substantive criteria from ASHRAE Standard 90.1-2019. 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 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.

Significant Changes in Florida Building Code, Building, 8th Edition (2023)

CHAPTER 1: SCOPE AND ADMINISTRATION

Section 110: Inspections

110.9 Mandatory structural inspections for condominium and cooperative buildings.

110.9.1 General.

The Legislature finds that maintaining the structural integrity of a building throughout the life of the building is of paramount importance in order to ensure that buildings are structurally sound so as to not pose a threat to the public health, safety, or welfare. As such, the Legislature finds that the imposition of a statewide structural inspection program for aging condominium and cooperative buildings in this state is necessary to ensure that such buildings are safe for continued use.

110.9.2

As used in this section, the terms:

(a) "Milestone inspection" means a structural inspection of a building, including an inspection of load-bearing elements and the primary structural members and primary structural systems as those terms are defined in s. 627.706, Florida Statutes, by an architect licensed under chapter 481 or engineer licensed under chapter 471 authorized to practice in this state for the purposes of attesting to the life safety and adequacy of the structural components of the building and, to the extent reasonably possible, determining the general structural condition of the building as it affects the safety of such building, including a determination of any necessary maintenance, repair, or replacement of any structural component of the building. The purpose of such inspection is not to determine if the condition of an existing building is in compliance with the Florida Building Code or the fire safety code. The milestone inspection services may be provided by a team of professionals with an architect or engineer acting as a registered design professional in responsible charge with all work and reports signed and sealed by the appropriate qualified team member.

(b) "Substantial structural deterioration" means substantial structural distress or substantial structural weakness that negatively affects a building's general structural condition and integrity. The term does not include surface imperfections such as cracks, distortion, sagging, deflections, misalignment, signs of leakage, or peeling of finishes unless the licensed engineer or architect performing the phase one or phase two inspection determines that such surface imperfections are a sign of substantial structural deterioration.

110.9.3

- (a) *An owner or owners of a building that is three stories or more in height as determined by the Florida Building Code and that is subject, in whole or in part, to the condominium or cooperative form of ownership as a residential condominium under Chapter 718, Florida Statutes, or a residential cooperative under Chapter 719, Florida Statutes, must have a milestone inspection performed by December 31 of the year in which the building reaches 30 years of age, based on the date the certificate of occupancy for the building was issued, and every 10 years thereafter. If a building reached 30 years of age before July 1, 2022, the building's initial milestone inspection must be performed before December 31, 2024. If a building reaches 30 years of age on or after July 1, 2022, and before December 31, 2024, the building's initial milestone inspection must be performed before December 31, 2025. If the date of issuance for the certificate of occupancy is not available, the date of issuance of the building's certificate of occupancy shall be the date of occupancy evidenced in any record of the local building official.*
- (b) *The local enforcement agency may determine that local circumstances, including environmental conditions such as proximity to salt water as defined in s. 379.101, require that a milestone inspection must be performed by December 31 of the year in which the building reaches 25 years of age, based on the date the certificate of occupancy for the building was issued, and every 10 years thereafter.*
- (c) *The local enforcement agency may extend the date by which a building's initial milestone inspection must be completed upon a showing of good cause by the owner or owners of the building that the inspection cannot be timely completed if the owner or owners have entered into a contract with an architect or engineer to perform the milestone inspection and the inspection cannot reasonably be completed before the deadline or other circumstance to justify an extension.*
- (d) *The local enforcement agency may accept an inspection report prepared by a licensed engineer or architect for a structural integrity and condition inspection of a building performed before July 1, 2022, if the inspection and report substantially comply with the requirements of this section. Notwithstanding when such inspection was completed, the condominium or cooperative association must comply with the unit owner notice requirements in Section 110.9.9. The inspection for which an inspection report is accepted by the local enforcement agency under this paragraph is deemed a milestone inspection for the applicable requirements in chapters 718 and 719. If a previous inspection and report is accepted by the local enforcement agency under this paragraph, the deadline for the building's subsequent 10-year milestone inspection is based on the date of the accepted previous inspection.*

110.9.4

The milestone inspection report must be arranged by a condominium or cooperative association and any owner of any portion of the building which is not subject to the condominium or cooperative form of ownership. The condominium association or cooperative association and any owner of any portion of the building which is not subject to the condominium or cooperative form of ownership are each responsible for ensuring compliance with the requirements of this section. The condominium association or cooperative association is responsible for all costs associated with the milestone inspection attributable to the portions of a building which the association is responsible to maintain under the governing documents of the association. This section does not apply to a single-family, two-family, or three-family dwelling with three or fewer habitable stories above ground.

110.9.5

Upon determining that a building must have a milestone inspection, the local enforcement agency must provide written notice of such required inspection to the condominium association or cooperative association and any owner of any portion of the building which is not subject to the condominium or cooperative form of ownership, as applicable, by certified mail, return receipt requested. The condominium or cooperative association must notify the unit owners of the required milestone inspection within 14 days after receipt of the written notice from the local enforcement agency and provide the date that the milestone inspection must be completed. Such notice may be given by electronic submission to unit owners who consent to receive notice by electronic submission or by posting on the association's website.

110.9.6

Phase one of the milestone inspection must be completed within 180 days after receiving the written notice under Section 110.9.5. For purposes of this section, completion of phase one of the milestone inspection means the licensed engineer or architect who performed the phase one inspection submitted the inspection report by e-mail, United States Postal Service, or commercial delivery service to the local enforcement agency.

Study Question 1

How many days does the condominium association or cooperative association have to complete phase one upon receiving the written notice?

110.9.7

A milestone inspection consists of two phases:

110.9.7.1

For phase one of the milestone inspection, a licensed architect or engineer authorized to practice in this state shall perform a visual examination of habitable and nonhabitable areas of a building, including the major structural components of a building, and provide a qualitative assessment of the structural conditions of the building. If the architect or engineer finds no signs of substantial structural deterioration to any building components under visual examination, phase two of the inspection, as provided in Section 110.9.7.2, is not required. An architect or engineer who completes a phase one milestone inspection shall prepare and submit an inspection report pursuant to Section 110.9.8.

110.9.7.2

A phase two of the milestone inspection must be performed if any substantial structural deterioration is identified during phase one. A phase two inspection may involve destructive or nondestructive testing at the inspector's direction. The inspection may be as extensive or as limited as necessary to fully assess areas of structural distress in order to confirm that the building is structurally sound and safe for its intended use and to recommend a program for fully assessing and repairing distressed and damaged portions of the building. When determining testing locations, the inspector must give preference to locations that are the least disruptive and most easily repairable while still being representative of the structure. If a phase two inspection is required, within 180 days after submitting a phase one inspection report the architect or engineer performing the phase two inspection must submit a phase two progress report to the local enforcement agency with a timeline for completion of the phase two inspection. An inspector who completes a phase two milestone inspection shall prepare and submit an inspection report pursuant to Section 110.9.8.

110.9.8

Upon completion of a phase one or phase two milestone inspection, the architect or engineer who performed the inspection must submit a sealed copy of the inspection report with a separate summary of, at minimum, the material findings and recommendations in the inspection report to the condominium association or cooperative association, to any other owner of any portion of the building which is not subject to the condominium or cooperative form of ownership, and to the building official of the local government which has jurisdiction. The inspection report must, at a minimum, meet all of the following criteria:

- (a) Bear the seal and signature, or the electronic signature, of the licensed engineer or architect who performed the inspection.*
- (b) Indicate the manner and type of inspection forming the basis for the inspection report.*
- (c) Identify any substantial structural deterioration, within a reasonable professional probability based on the scope of the inspection, describe the extent of such deterioration, and identify any recommended repairs for such deterioration.*
- (d) State whether unsafe or dangerous conditions, as those terms are defined in the Florida Building Code, were observed.*
- (e) Recommend any remedial or preventive repair for any items that are damaged but are not substantial structural deterioration.*
- (f) Identify and describe any items requiring further inspection.*

110.9.9

Within 45 days after receiving the applicable inspection report, the condominium or cooperative association must distribute a copy of the inspector-prepared summary of the inspection report to each condominium unit owner or cooperative unit owner, regardless of the findings or recommendations in the report, by United States mail or personal delivery at the mailing address, property address, or any other address of the owner provided to fulfill the association's notice requirements under chapter 718 or chapter 719, as applicable, and by electronic transmission to the e-mail address or facsimile number provided to fulfill the association's notice requirements to unit owners who previously consented to receive notice by electronic transmission; must post a copy of the inspector-prepared summary in a conspicuous place on the condominium or cooperative property; and must publish the full report and inspector-prepared summary on the association's website, if the association is required to have a website.

110.9.10

A local enforcement agency may prescribe timelines and penalties with respect to compliance with this section.

110.9.11

A board of county commissioners or municipal governing body may adopt an ordinance requiring that a condominium or cooperative association and any other owner that is subject to this schedule or commence repairs for substantial structural deterioration within a specified timeframe after the local enforcement agency receives a phase two inspection report; however, such repairs must be commenced within 365 days after receiving such report. If an owner of the building fails to submit proof to the local enforcement agency that repairs have been scheduled or have commenced for substantial structural deterioration identified in a phase two inspection report within the required timeframe, the local enforcement agency must review and determine if the building is unsafe for human occupancy.

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE

Section 406: Motor-Vehicle-Related Occupancies

406.6.4 Mechanical-access enclosed parking garages.

Mechanical-access enclosed parking garages shall be in accordance with Sections 406.6.4.1 through 406.6.4.4.

406.6.4.1 Separation.

Mechanical-access enclosed parking garages shall be separated from other occupancies and accessory uses by not less than 2-hour fire barriers constructed in accordance with Section 707 or by not less than 2-hour horizontal assemblies constructed in accordance with Section 711, or both.

406.6.4.2 Smoke removal.

A mechanical smoke removal system, installed in accordance with Section 910.4, shall be provided for all areas containing a mechanical-access enclosed parking garage.

406.6.4.3 Fire control equipment room.

Fire control equipment, consisting of the fire alarm control unit, mechanical ventilation controls and an emergency shutdown switch, shall be provided in a room located where the equipment is able to be accessed by the fire service from a secured exterior door of the building. The room shall be not less than 50 square feet (4.65 m²) in area and shall be in a location that is approved by the fire code official.

406.6.4.3.1 Emergency shutdown switch.

The mechanical parking system shall be provided with a manually activated emergency shutdown switch for use by emergency personnel. The switch shall be clearly identified and shall be in a location approved by the fire code official.

406.6.4.4 Fire department access doors.

Access doors shall be provided in accordance with the Florida Fire Prevention Code.

Section 454: Swimming Pools and Bathing Places (Public and Private)

454.1.9.10 Vanishing edge pools.

454.1.9.10.1

Vanishing edge pools shall be designed and constructed within the limits of sound engineering practice and shall meet the requirements of Sections 454.1.1 through 454.1.6.5, unless specifically indicated otherwise.

454.1.9.10.2

Vanishing edges and associated discharge troughs or catch basins shall be constructed of concrete or other structurally rigid impervious materials with a nontoxic, smooth and slip-resistant finish.

454.1.9.10.3

The vanishing edge shall discharge into a trough or basin. The trough or basin must be covered with a lid or secure grating that has the capacity to support a responder attending to a bather in distress on the opposite side of the vanishing edge. The trough or basin must be designed to deter access. The maximum height of the trough or basin wall above surrounding grade shall be 10 inches (254 mm). A lowered wet deck in accordance with Section 454.1.3.1 must be provided around the trough or basin and immediately adjacent to it.

454.1.9.10.4

The vanishing edge length shall not exceed 65 feet (19 812 mm) or 40 percent of the pool perimeter, whichever is less. The maximum vertical distance from the top of the vanishing edge wall to the trough or catch basin cover or adjacent grade shall be 36 inches (914 mm). The maximum water depth in the pool at the vanishing edge wall shall be 4 feet (1219 mm). The vanishing edge wall shall not be considered as a perimeter deck obstruction. Water line tile at the top of the edge wall as required by Section 454.1.2.1(a) is not required to be non-skid.

454.1.9.10.5

Depth markings for vanishing edges shall be in accordance with Section 454.1.2.3.1(5).

454.1.9.10.6

The remainder of the pool perimeter must have perimeter overflow gutters per Section 454.1.6.5.3.1 or recessed automatic surface skimmers in accordance with Section 454.1.6.5.3.2. Alternatively, a combination of recessed automatic surface skimmers and perimeter overflow gutters may be used along the remainder of the perimeter, such that parts of the perimeter without perimeter overflow gutters or vanishing edges shall have skimmers spaced every 20 feet (6096 mm) or less, regardless of the width or area of the pool.

454.1.12 Surf pools.

454.1.12.1 General.

A surf pool is a type of water impoundment used as a public bathing place as defined in Section 514.011, Florida Statutes, that is man-made and has either: a total water surface area of at least onequarter acre (1012 m²) in size, with an impervious containment system such as an artificial liner, and incorporates a method of disinfection that results in a disinfectant residual in the swimming zone(s) that is protective of the public health. Such surf pools shall be designed and constructed within the limits of sound engineering practice and the provisions of Section 454.1.12.

454.1.12.2 Sizing and sanitary facilities.

The maximum bathing load for a surf pool with a disinfection system approved by the local authority shall be limited by total square footage of the entire area that allows for surfing with 100 square feet (9.29 m²) per bather in water more than 4 feet (1219 mm) deep. Sanitary facilities serving patrons of an artificial lagoon shall meet the Florida Building Code, Plumbing criteria and are exempt from the fixture count requirements in Section 454.1.6.1.1. All sanitary facilities shall be located as near to the designated surfing area(s) as prudent to ensure patron use, but not more than 200 feet (60 960 mm) walking distance from the designated surfing area(s).

454.1.12.3 Construction standards.

If an artificial liner is utilized as a containment system, the artificial liner used to contain the water shall consist of a material certified under NSF/ANSI Standard 61-2021, Drinking Water System Components—Health Effects, dated April 14, 2021, hereby incorporated by reference, which has been deemed copyright protected, and is available for review at the Department of State, R.A. Gray Building, 500 South Bronough Street, Tallahassee, FL 32399-0250. The liner or artificial bottom, the floor, and the walls, if any, shall be white or light pastel in color and shall have the characteristic of reflecting rather than absorbing light. The liner material color shall have a wet luminous reflectance value (CIE Y value) of 50.0 or greater, as determined by test results provided by the manufacturer, utilizing testing methodology from ASTM D4086, ASTM E1477 or ASTM E1347. The design of such liner system is the responsibility of a professional engineer licensed in Florida. If any designated surfing area, or portion thereof, is designed with swimming pool features, including concrete vertical walls and floors, such areas of the pool shall be designed in compliance with Sections 454.1.2.2.2, 454.1.2.2.3 and 454.1.2.2.4.

Study Question 2

True or False. The liner or artificial bottom, the floor, and the walls shall have the characteristics of absorbing light.

454.1.12.4 Access.

Points of access shall be provided as needed to provide adequate entrance to and exit from the surf pool. Means of access may consist of ladders, stairs, recessed treads, and swimouts designed in compliance with Section 454.1.2.5, zero depth entry areas, and docks, in any number and combination that is appropriate for the intended use(s) of the surf pool. Permanent or portable steps, ramps, handrails, lifts or other devices designed to accommodate handicapped individuals may be provided. Lifts mounted into the wet deck shall have a minimum 4-foot-wide (1219 mm) deck behind the lift mount.

454.1.12.5 Decks and walkways.

Decks and walkways, if utilized to access a designated surfing area, shall be designed in compliance with Sections 454.1.3.1.1 and 451.1.3.1.2. Zero depth entry areas may slope

toward the water for no more than 15 feet (4572 mm), as measured from the water's edge outward. Beyond this area, the deck or other surface shall slope away from the surf pool at a minimum of 2 percent to a maximum of 4 percent, and shall be ADA compliant.

454.1.12.6 Safety.

The portion(s) designated for surfing shall meet the safety requirements in Section 454.1.3.3. The depth at the deepest point in any designated swimming/surfing area shall be indicated, along with the other rules and regulations signage required in Section 454.1.2.3.5. Where access to a portion with a vertical wall is not blocked or obstructed by an approved substantial barrier, NO DIVING markers and depth markers shall be installed in accordance with Section 454.1.2.3.1, except that markers are not required on inside vertical walls. Signage may be substituted for markers if approved by the local authority, and such markers or signs are required only along the accessible perimeter. Markings shall be of such materials that will not fade over time. A lifeguard safety plan shall be submitted to the health department for prior approval and implemented by the owner/operator.

454.1.12.7 Electrical systems for artificial lagoons.

Electrical equipment wiring and installation, including the bonding and grounding of components, shall comply with Chapter 27 of the Florida Building Code, Building. Outlets supplying pump motors connected to single-phase 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, and outlets supplying other electrical equipment and underwater luminaires operating at voltages greater than the low voltage contact limit, connected to single-phase, 120- volt through 240-volt branch circuits, rated 15 or 20 amperes, whether by receptacle or by direct connection, shall be provided with ground-fault circuit interrupter protection for personnel. Any portions of the artificial lagoon designated for swimming at night shall comply with the lighting requirements in Sections 454.1.4.2.1 and 454.1.4.2.3.

454.1.12.8 Equipment rooms.

Equipment rooms shall comply with Section 454.1.5.

454.1.12.9 Treatment systems.

The design of the treatment system is the responsibility of a professional engineer licensed in Florida. Chemical disinfection of recirculated water immediately following the filtration process shall achieve a measurable residual in the surf pool water that is continuously protective of public health and shall be in compliance with Section 454.1.6.5.16. The equipment that feeds or generates the chemical shall be NSF/ANSI Standard 50 certified and subject to review and approval by the local authority. The disinfectant chemical shall be applied in accordance with the manufacturer's instructions, and must be an NSF/ANSI Standard 60-certified chemical, or a US EPA-registered microbial biocide. Any other chemical applied to the water for water quality treatment must be applied in accordance with the manufacturer's instructions and must be an NSF/ANSI Standard 60- or Standard 50-certified chemical. If remote chemical monitoring sensors are used, one (1) chemical sensor shall be installed in or directly adjacent to each designated surf area. Vacuum systems shall not be used in designated swimming area(s) while such area(s) is (are) open for swimming, and all suction outlets shall comply with the requirements of Section 514.0315, Florida Statutes.

CHAPTER 8: INTERIOR FINISHES AND DECORATIVE MATERIALS

Section 809: Artificial Decorative Vegetation on Buildings and in Outdoor Occupancies

809.1 General.

Fixed artificial decorative vegetation placed in outdoor occupancies or on an occupied roof of a building shall comply with this section.

809.2 Testing.

Artificial decorative vegetation shall meet the flame propagation performance criteria of the Test Method 1 or Test Method 2, as appropriate, of NFPA 701. Meeting such criteria shall be documented and certified by the manufacturer in an approved manner. Alternatively, the artificial decorative vegetation shall be tested in accordance with NFPA 289, using the 20 kW ignition source, and shall have a maximum heat release rate of 100 kW.

809.3 Electrical fixtures and wiring.

The use of unlisted electrical wiring and lighting on artificial decorative vegetation shall be prohibited. The use of electrical wiring and lighting on artificial trees constructed entirely of metal shall be prohibited.

809.4 Ignition sources and maintenance.

Ignition sources and maintenance of outdoor artificial vegetation shall be in accordance with the Florida Fire Prevention Code.

CHAPTER 10: MEANS OF EGRESS

Section 1010: Doors, Gates and Turnstiles

1010.2.16 Elevator lobby exit access doors.

In other than high-rise buildings and Group I-3, R-3 and R-4 occupancies, electrically locked exit access doors providing egress from elevator lobbies shall be permitted where all the following conditions are met:

- 1. For all occupants of the floor, the path of exit access travel to not less than two exits is not required to pass through the elevator lobby.*
- 2. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, and a fire alarm system in accordance with Section 907. Elevator lobbies shall be provided with an automatic smoke detection system in accordance with Section 907.*
- 3. Activation of the building fire alarm system by other than a manual fire alarm box shall automatically unlock the electric locks providing exit access from the elevator lobbies, and the electric locks shall remain unlocked until the system is reset.*

4. *The electric locks shall unlock on loss of power to the electric lock or electrical locking system.*
5. *The electric locks shall have the capability of being unlocked by a switch located at the firecommand center, security station, or other approved location.*
6. *A two-way communication system complying with Chapter 7 of the Florida Building Code, Accessibility shall be located in the elevator lobby adjacent to the electrically locked exit access door and connected to an approved constantly attended station. This constantly attended station shall have the capability of unlocking the electric locks of the elevator lobby exit access doors.*
7. *Emergency lighting shall be provided in the elevator lobby on both sides of the electricallylocked door.*
8. *The door locking system units shall be listed in accordance with UL 294.*

CHAPTER 14: EXTERIOR WALLS

Section 1405: Installation of Wall Coverings

1405.14 Vinyl siding.

Vinyl siding conforming to the requirements of this section and complying with ASTM D3679 shall be permitted on exterior walls where the design wind pressure determined in accordance with Section 1609 does not exceed 30 pounds per square foot (1.44 kN/m²). Where the design wind pressure exceeds 30 pounds per square foot (1.44 kN/m²), tests or calculations indicating compliance with Chapter 16 shall be submitted. Vinyl siding shall be secured to the building so as to provide weather protection for the exterior walls of the building.

1405.14.1 Application.

The siding shall be applied over sheathing or materials listed in Section 2304.6. Siding shall be applied over a water-resistive barrier in accordance with requirements in Section 1404. Siding and accessories shall be installed in accordance with the approved manufacturer's instructions.

1405.14.1.1 Fasteners and fastener penetration for wood construction.

Unless otherwise specified in the approved manufacturer's instructions, nails used to fasten the siding and accessories shall be corrosion resistant and have a minimum 0.313-inch (7.9 mm) head diameter and 1/8-inch (3.18 mm) shank diameter. The penetration into nailable substrate shall be not less than at least 11/4 inches (32 mm).

1405.14.1.2 Fasteners and fastener penetration for cold-formed steel light-frame construction.

For coldformed steel light-frame construction, corrosion resistant fasteners shall be used. Screw fasteners shall penetrate through the steel with a minimum of three exposed threads. Other fasteners shall

Study Question 3

What type of fasteners shall be used for cold formed steel light-frame construction?

be installed in accordance with the approved construction documents and manufacturer's instructions.

1405.14.1.3 Fastener spacing.

Unless specified otherwise by the approved manufacturer's instructions, fasteners shall be installed in the middle third of the slots of the nail hem and maximum spacing between fasteners shall be 16 inches (406 mm) for horizontal siding and 12 inches (305 mm) for vertical siding.

1405.14.2 Accessories.

Accessories must be installed in accordance with the approved manufacturer's instructions.

1405.14.2.1 Starter strip.

Horizontal siding shall be installed with a starter strip at the initial course at any location.

1405.14.2.2 Utility trim.

Under windows, and at top of walls, utility trim shall be used with snap locks.

1405.18 Polypropylene siding.

Polypropylene siding conforming to the requirements of this section and complying with Section 1404.12 shall be limited to exterior walls of Type VB construction located in areas where the wind speed specified in Chapter 16 does not exceed 100 miles per hour (45 m/s) and the building height is less than or equal to 40 feet (12 192 mm) in Exposure C. Where construction is located in areas where the basic wind speed exceeds 100 miles per hour (45 m/s), or building heights are in excess of 40 feet (12 192 mm), tests or calculations indicating compliance with Chapter 16 shall be submitted. Polypropylene siding shall be installed in accordance with the manufacturer's instructions. Polypropylene siding shall be secured to the building so as to provide weather protection for the exterior walls of the building.

1405.18.1 Installation.

Unless otherwise specified in the approved manufacturer's instructions, polypropylene siding and accessories shall be installed over and attached to wood structural panel sheathing with a minimum thickness of 7/16 inch (11.1 mm), or another nailable substrate.

1405.18.1.1 Accessories.

Accessories shall be installed in accordance with the approved manufacturer's instructions.

1405.18.1.1.1 Starter strip.

Horizontal siding shall be installed with a starter strip at the initial course at any location.

1405.18.1.1.2 Under windows and top of walls.

Where nail hem is removed such as under windows and at top of walls, nail slot punch or predrilled holes shall be constructed.

1405.18.2 Fastener requirements.

Unless otherwise specified in the approved manufacturer's instructions, nails shall be corrosion resistant, with a minimum 0.120-inch (3 mm) shank and minimum 0.313-inch (8 mm) head diameter. Nails shall be a minimum of 1 1/4 inches (32 mm) long or as necessary to penetrate sheathing or nailable substrate not less than 3/4 inch (19.1 mm). Where the nail fully penetrates the sheathing or nailable substrate, the end of the fastener shall extend not less than 1/4 inch (6.4 mm) beyond the opposite face of the sheathing or nailable substrate. The spacing of fasteners shall conform to the approved manufacturer's instructions.

CHAPTER 16: STRUCTURAL DESIGN

Section 1606: Dead Loads

1606.1 General.

Dead loads are those loads defined in Chapter 2 of this code. Dead loads shall be considered permanent loads.

1606.2 Weights of materials of construction.

For purposes of design, the actual weights of materials of construction shall be used. In the absence of definite information, values used shall be subject to the approval of the building official.

1606.3 Weight of fixed service equipment.

In determining dead loads for purposes of design, the weight of fixed service equipment, including the maximum weight of the contents of fixed service equipment, shall be included. The components of fixed service equipment that are variable, such as liquid contents and movable trays, shall not be used to counteract forces causing overturning, sliding, and uplift conditions in accordance with Section 1.3.6 of ASCE 7.

Exception: Where force effects are the result of the presence of the variable components, the components are permitted to be used to counter those load effects. In such cases, the structure shall be designed for force effects with the variable components present and with them absent.

Study Question 4

When determining dead loads for the purposes of design, do we include the weight of fixed service equipment?

1606.4 Photovoltaic panel systems.

The weight of photovoltaic panel systems, their support system, and ballast shall be considered as dead load.

1606.5 Vegetative and landscaped roofs.

The weight of all landscaping and hardscaping materials for vegetative and landscaped roofs shall be considered as dead load. The weight shall be computed considering both fully

saturated soil and drainage layer materials and fully dry soil and drainage layer materials to determine the most severe load effects on the structure.

Section 1607: Live Loads

1607.20 Residential attics.

The live loads indicated in Table 1607.1 for attics in residential occupancies shall comply with the requirements of this section.

1607.20.1 Uninhabitable attics without storage.

In residential occupancies, uninhabitable attic areas without storage are those where the maximum clear height between the joists and rafters is less than 42 inches (1067 mm), or where there are not two or more adjacent trusses with web configurations capable of accommodating an assumed rectangle 42 inches (1067 mm) in height by 24 inches (610 mm) in width, or greater, within the plane of the trusses. The live load in Table 1607.1 need not be assumed to act concurrently with any other live load requirement.

1607.20.2 Uninhabitable attics with storage.

In residential occupancies, uninhabitable attic areas with storage are those where the maximum clear height between the joist and rafter is 42 inches (1067 mm) or greater, or where there are two or more adjacent trusses with web configurations capable of accommodating an assumed rectangle 42 inches (1067 mm) in height by 24 inches (610 mm) in width, or greater, within the plane of the trusses. The live load in Table 1607.1 need only be applied to those portions of the joists or truss bottom chords where both of the following conditions are met:

- 1. The attic area is accessed from an opening not less than 20 inches (508 mm) in width by 30 inches (762 mm) in length that is located where the clear height in the attic is not less than 30 inches (762 mm).*
- 2. The slope of the joists or truss bottom chords is not greater than 2 units vertical in 12 units horizontal.*

The remaining portions of the joists or truss bottom chords shall be designed for a uniformly distributed concurrent live load of not less than 10 pounds per square foot (0.48 kN/m²).

1607.20.3 Attics served by stairs.

Attic spaces served by stairways other than the pull-down type shall be designed to support the minimum live load specified for habitable attics and sleeping rooms.

CHAPTER 29: PLUMBING SYSTEMS

Section 2903: Installation of Fixtures

2903.1 Setting.

Fixtures shall be set level and in proper alignment with reference to adjacent walls.

2903.1.1 Water closets, urinals, lavatories and bidets.

A water closet, urinal, lavatory or bidet shall not be set closer than 15 inches (381 mm) from its center to any side wall, partition, vanity or other obstruction. Where partitions or other obstructions do not separate adjacent fixtures, fixtures shall not be set closer than 30 inches (762 mm) center to center between adjacent fixtures. There shall be not less than a 21-inch (533 mm) clearance in front of a water closet, urinal, lavatory or bidet to any wall, fixture or door. Water closet compartments shall be not less than 30 inches (762 mm) in width and not less than 60 inches (1524 mm) in depth for floor-mounted water closets and not less than 30 inches (762 mm) in width and 56 inches (1422 mm) in depth for wall-hung water closets.

Exception: An accessible children's water closet shall be set not closer than 12 inches (305 mm) from its center to the required partition or to the wall on one side.

2903.1.2 Public lavatories.

In employee and public toilet rooms, the required lavatory shall be located in the same room as the required water closet.

2903.1.3 Location of fixtures and piping.

Piping, fixtures or equipment shall not be located in such a manner as to interfere with the normal operation of windows, doors or other means of egress openings.

2903.1.4 Water closet compartment.

Each water closet utilized by the public or employees shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy.

Exceptions:

- 1. Water closet compartments shall not be required in a single occupant toilet room with a lockable door.*
- 2. Toilet rooms located in child day care facilities and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.*
- 3. This provision is not applicable to toilet areas located within Group I-3 housing areas.*

2903.1.5 Urinal partitions.

Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. The horizontal dimension between walls or partitions at each urinal shall be not less than 30 inches (762 mm). The walls or partitions shall begin at a height not greater than 12 inches (305 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal not less than 18 inches (457 mm) or to a point not less than 6 inches (152 mm) beyond the outermost front lip of the urinal measured from the finished backwall surface, whichever is greater.

Study Question 5

For public and shared urinals, what is the minimum space between walls or partitions at each urinal?

Exceptions:

- 1. Urinal partitions shall not be required in a single occupant or family/assisted-use toilet room with a lockable door.*
- 2. Toilet rooms located in child day care facilities and containing two or more urinals shall be permitted to have one urinal without partitions.*

CHAPTER 33: SAFEGUARDS DURING CONSTRUCTION

Section 3307: Protection of Adjoining Property

3307.2 Excavation retention systems.

Where a retention system is used to provide support of an excavation for protection of adjacent structures, the system shall conform to the requirements in Section 3307.2.1 through 3307.2.3.

3307.2.1 Excavation retention system design.

Excavation retention systems shall be designed by a registered design professional to provide vertical and lateral support.

3307.2.2 Excavation retention system monitoring.

The retention system design shall include requirements for monitoring of the system and adjacent structures for horizontal and vertical movement.

3307.2.3 Retention system removal.

Elements of the system shall only be removed or decommissioned when adequate replacement support is provided by backfill or by the new structure. Removal or decommissioning shall be performed in such a manner that protects the adjacent property.

Appendix A

Answers to Study Questions

Study Question 1

How many days does the condominium association or cooperative association have to complete phase one upon receiving the written notice?

Within 180 days.

Study Question 2

True or False. The liner or artificial bottom, the floor, and the walls shall have the characteristics of absorbing light.

False.

Study Question 3

What type of fasteners shall be used for coldformed steel light-frame construction?

Corrosion resistant fasteners.

Study Question 4

When determining dead loads for the purposes of design, do we include the weight of fixed service equipment?

Yes... "In determining dead loads for purposes of design, the weight of fixed service equipment, including the maximum weight of the contents of fixed service equipment, shall be included."

Study Question 5

For public and shared urinals, what is the minimum space between walls or partitions at each urinal?

30 inches (762 mm).

Appendix B

References

2023 Florida Building Code, Building, 8th Edition
<https://codes.iccsafe.org/content/FLBC2023P1>

Florida Building Code
<https://floridabuilding.org/c/default.aspx>

Florida Board of Professional Engineers: Advanced Building Course
<https://fbpe.org/continuing-education/advanced-building-code-course/>