

## **Course Syllabus:**

<u>Course Title:</u>	Advanced Code Requirements for Residential Construction -Internet Course
<u>Number of Classroom Hours:</u>	1; 1 CEU
<u>Method of Presentation:</u>	Online Course
<u>Intended Target Group:</u>	Florida Certified & Registered Contractors

## **Provider Information:**

Business Name: Infinity LC DBA, On-Line-Classes.com

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Provider Number: 0004591

## **Course Description:**

This course is designed to provide Florida contractors with basic building code requirements for residential construction, as outlined in the 2010 Florida Building Code. The course relays the fundamental importance of adhering to building codes and standards and the purpose and intent of the Florida Building Code. Specific areas discussed include: the permitting and inspection process; spatial and structural concepts and requirements such as minimum room dimensions, ceiling heights, interior and exterior wall design, and garage and carport design; creating a means of egress system, with specific details about the components and requirements as such; mechanical and plumbing requirements including fixtures for sanitation, exhaust systems locations and specifications, and fuel-fired appliances; and termite protection. The course material is derived from both Florida Building Code- Building and Florida Building Code- Residential, as appropriate.

**Course Prerequisites:** There are no prerequisites for this course.

### **Course Learning Objectives:**

- To develop an awareness of the purpose, intent and development of the Florida Building Code, as well as the fundamental importance of adhering to minimum requirements.
- To outline the process of obtaining a building permit, providing needed materials, and sequencing inspections.
- To develop an understanding of a continuous load path, and its components.
- To outline minimum structural and spatial and requirements including room dimensions, wall performance, and accessory structures such as a garage or carport.
- To define the components of the means of egress system and outline requirements for stairways, doorways, windows, including glazing requirements, lighting and smoke alarms.
- To outline basic plumbing and mechanical requirements to meet minimum sanitation requirements, mechanical ventilation of bathrooms, kitchens, & laundry rooms, and fuel-fired appliances.

### **Course Outline:**

**Section 1- Permits & Inspections-** Describes the purpose and intent of the Florida Building Code, the development of code updates & referenced standards therein, the process and application for work permits, including submittals and timelines, and the scheduling and sequence of inspections through the attainment of a certificate of occupancy.

**FBC- Building 101.3 Intent, FBC-Building 104.11 Alternative materials, design and methods of construction and equipment, FBC- Building 105.1 Required, FBC- Building 105.3 Application for Permit, FBC- Building 105.3.1 Action on application, FBC- Building 105.3.2 Time limitation of application, FBC-Building 105.3.5 Identification of minimum premium policy, FBC- Building 107.3 Examination of documents, FBC- Building 107.1 General and 107.2.1 Information on construction documents, FBC- Building 107.3.5 Minimum plan review criteria for buildings, FBC- Building 107.3.1 Approval of construction documents, FBC-Building 107.4 Amended construction documents, FBC- Building 105.4.1 Permit intent, FBC- Building 105.4.1.3 Permit intent, FBC- Building 105.7 Placement of permit, FBC- Building 110.1 General, FBC- Building 110.6 Approval required, FBC- Building 110.3 Required inspections, FBC- Building 111.2 Certificate issued.**

## Learning Exercise 1

**Section 2- Structural Loads & Spaces-** Outlines the importance of creating a continuous load path and defines terms important for understanding the continuous load path, reviews the performance criteria for exterior walls, the creation of a weather-resistant exterior wall envelope and provides design pressures for component and cladding loads, details the minimum requirements for room areas and ceiling heights, interior wall coverings, and garage and carport design.

FBC- Residential R301.1 **Application**, FBC- Residential R501.2 **Requirements** and R601.2 **Requirements**, FBC- Building 1602- **Definitions and notations**, FBC- Residential R301.1 **Application**, FBC- Residential R703.1 **General** and R703.8 **Flashing**, FBC- Residential R703.2 **Weather-resistant sheathing paper**, Table R703.4- **Weather-resistant siding attachment and minimum thickness**, FBC- Residential R703.1 **General** (exception 1) and R703.2 **Weather-resistant sheathing paper** (exception 2), Table R301.2(2)- **Component and Cladding Loads for a Building with a Mean Roof Height of 30 Feet Located in Exposure B (psf)**, FBC- Residential R703.1.3 **Load resistance**, Tables R702.1(1), R702.1(2), R702.1(3), & R702.3.5, FBC- Residential R702.1 **General.**) (FBC- Residential R302.9.1 **Flame Spread Index** and R302.9.2 **Smoke-developed index**, FBC- Residential R101.2 **Scope**, FBC- Residential R304.1 **Minimum area**, FBC- Residential R304.2 **Other rooms**, FBC- Residential R304.3 **Minimum dimensions**, FBC- Building 1208.3 **Room area (Exception)**, FBC-Building 202 **Definitions**, FBC- Residential R304.4 **Height effect on room area**, FBC- Residential R305.1 **Minimum height**, FBC- Residential R305.1 **Minimum height** (Exceptions), FBC- Residential R305.1.1 Basements, FBC- Residential R302.10.1 **Insulation**, FBC- Residential R302.5.1 **Opening protection**, FBC- Residential Table 302.6 **Dwelling/Garage Separation**, FBC- Residential R302.5.2 **Duct penetration**, FBC- Residential R309.1 **Floor surface**, FBC- Residential R309.2 **Carports**.

## Learning Exercise 2

**Section 3- Means of Egress & Emergency Openings-** Defines terms important for understanding the components of a means of egress system, its purpose and importance, provides design criteria for such components including stairways, doorways, windows, ramps, landings, handrails, lighting and smoke alarm systems, and outlines glass & glazing requirements for various spaces as well as lists hazardous locations, generally unsuitable for glazing.

FBC-Building 1002.1 **Definitions**, FBC-Residential R202 **Definitions**, FBC-Residential R311.1 **Means of Egress**, FBC-Residential R311.2 **Egress door**, FBC-Residential R311.3 **Landings at doors & (Exception)**, FBC-Residential R310.1 **Emergency escape and rescue required** and R310.1.1 **Minimum opening area**, FBC-Residential R310.1.2 **Minimum opening height** and R310.1.3 **Minimum opening width**, FBC-Residential R310.1.4 **Operational constraints**, FBC-Residential R308.1 **Identification**, FBC-Residential R308.4 **Hazardous Locations**, FBC-Residential R303.1 **Habitable Rooms**, FBC-Residential R303.3 **Bathrooms**, FBC-Residential R303.7 **Required Glazed Openings & (Exception)** , FBC-Residential R303.7.1 **Sunroom additions**, FBC-Residential R311.5.1 **Attachment**, FBC-Residential R311.7.4.1 **Riser height**,

FBC-Residential R311.7.4.2 **Tread depth**, FBC-Residential R311.7.2 **Headroom**, FBC-Residential R311.7.1 **Width**, FBC- Residential R311.7.5 **Landings for stairways**, FBC- Residential R311.7.6 **Stairway walking surface**, FBC- Residential R303.6 **Stairway illumination**, FBC- Residential R303.6.1 **Light activation & Exception**, FBC- Residential R311.7.1 **Width**, FBC- Residential R311.7.2 **Continuity**, FBC-Residential R311.7.7 **Handrails**, FBC-Residential R311.7.7.1 **Height**, FBC-Residential R311.7.7.3 **Grip-size**, FBC- Residential R311.8.1 **Maximum slope**, FBC-Residential R311.8.2 **Landings required**, FBC- Building 1002.1 **Definitions**, FBC- Residential R312.1 **Guards-where required**, FBC- Residential R312.3 **Opening Limitations**, FBC- Residential R314.3 **Location**, FBC- Residential R314.1 **Smoke detection and notification**, and R314.4 **Power source**.

### Learning Exercise 3

**Section 4- Plumbing & Mechanical-** Provides the minimum plumbing requirements needed to ensure a sanitary living environment including plumbing fixture dimensions and requirements, providing a supply of potable water and installing a hot-water heater, reviews the benefits of providing a mechanical ventilation system and outlines requirements for providing exhaust openings, provides performance requirements for bathroom, laundry and kitchen exhaust as well as location and performance of fuel-fired appliances, and describes the minimum standard for providing protection against termites.

FBC- Residential R306.1 **Toilet facilities & R306.2 Kitchen**, FBC- Residential R306.4 **Water supply to fixtures** FBC- Residential P2801.1 **Required**, FBC- Residential P2801.3 **Location**, Figure R307.1 **Minimum Fixture Clearances**, FBC- Residential R307.1 **Space required**, FBC- Residential P2701.1 **Quality of fixtures**, FBC- Residential P2708.1 **General & P2708.1.1 Access**, FBC- Residential P2708.3 **Shower control valves**, FBC- Residential R307.2 **Bathtub and shower spaces**, FBC- Residential R702.3.8 **Water-resistant gypsum backing board & R702.3.8.1 Limitations**, FBC- Residential R303.4.1 **Intake openings**, FBC- Residential R303.4.2 **Exhaust openings**, FBC- Residential R303.5 **Outside opening protection**, FBC- Residential M1507.2 **Recirculation of air**, FBC- Residential M1507.3 **Ventilation rate**, FBC- Residential M1502.1 **General & G2439.1 Installation**, FBC- Residential M1502.3 **Duct termination**, FBC- Residential M1505.1 **General**, FBC- Residential M1901.2 **Cooking appliances**, FBC- Residential G2407.1 **General**, FBC- Residential G2406.2 **Prohibited locations**, FBC- Residential R318.1 **Termite Protection**.

### Course Timeline:

This is a 50 minute course with the following approximate time line:

- **Section 1- Permits & Inspections** **12.75 Minutes**
- **Section 2- Structural Loads & Spaces** **15 Minutes**

• Section 3- Means of Egress & Emergency Openings	23.25 Minutes
• Section 4- Plumbing & Mechanical	14.5 Minutes
<b>Total:</b>	<b>65.5 Minutes</b>
<b>+ Est. 3 Minutes per Quiz:</b>	<b>9 Minutes</b>
<b>Total Est. Time:</b>	<b>74.5 Minutes</b>

**Method of Presentation:** This is an online course, which uses narrated and animated PowerPoint Presentations that have been converted to Flash for web delivery.

**Evaluation Method:**

Licensees will be evaluated on their comprehension of the material covered by participating in three (3) short learning exercises, interspersed throughout the course, upon which successful completion of each is required before advancement to the next segment is allowed and credit may be obtained for course completion.