Florida Building Code Electrical Advanced Module

The 2010 Revision to the FBC

- Was adopted on March 15, 2012
- At this time the 2008 NEC will remain the adopted standard in the 2010 Florida Building Code.

Florida Building Code Electrical Advanced Module

- Comparing the Electrical Components of the 2010 Florida Building Code with the 2008 Editions of the NEC©

Florida Building Code Section 102.4

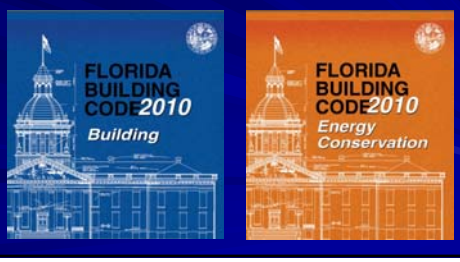
"…..Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply."

This means the Florida Building Code overrides the NEC.

2010 FBC is 9 Volumes

Florida Building Code and Electrical Installations

The Building & Energy Volumes Have Most of the Requirements Related to Electrical Installations

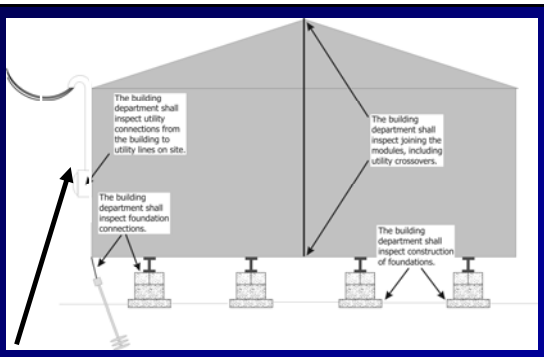


FBC Chapter 1 Administration

102 APPLICABILITY

- 102.7 Relocation of manufactured buildings. *(Trailers, dwelling, office or storage)*
  - Relocation of an existing manufactured building does not constitute an alteration. *However…*

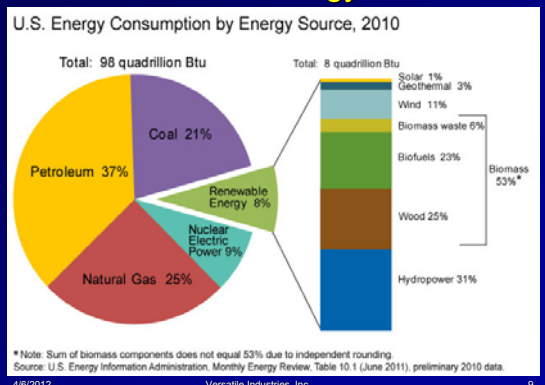
7



Electrical connections to the relocated manufactured building shall be inspected by the Authority Having Jurisdiction.

8

Where Does Our Energy Come From?



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A look at Commercial Energy Consumption in Office Buildings

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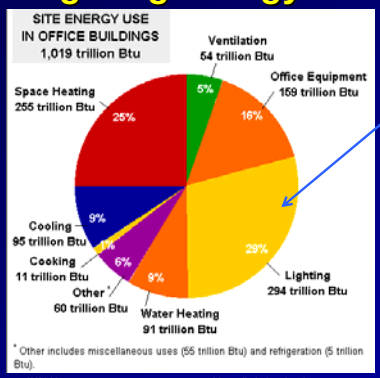
Lighting Energy Consumption



Lighting is the largest Energy Consumer in Office Buildings

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So Let's Look At The New *Code* Requirements

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FBC – EC Chapter 1 Administration

- **101.2 – Scope.** The Energy Conservation Code applies to *residential* and *commercial buildings*.
- It is a statewide uniform code that shall not be made more stringent or lenient by local government.
- **101.3 – Intent.** This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve the effective use of energy.
- This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

FBC – EC Chapter 1 Administration

- **101.4 – Applicability.** Where different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern.
- Where there is a conflict between general requirements and a specific requirement, the specific requirement shall govern.

Applicability

- Just about any alteration, addition, renovation or repair will have to abide by the FBC-EC requirements, unless they qualify as one of the exemptions.

101.4.7 Building Systems

- Thermal efficiency standards are set for the following building systems, where new products are installed or replaced in existing buildings, and for which a permit must be obtained:
- Heating, ventilating or air conditioning systems
- Service water (water for human use) or pool heating systems
- Electrical systems and motors
- Lighting Systems

A note about Wattage vs Lumens

- Most of your electrical career, you have tended to equate the amount of visible light provided by a lamp or bulb as wattage. It is actually lumens and is calculated at the surface that is being illuminated. Wattage is actually the electrical energy required to produce that lumens.
- Now we must “un-train” ourselves from referring to the brilliance of a fixture or lamp as its wattage. This is essential to understanding “efficacy”.

Section 303.2.3 Recessed Equipment

- Lighting fixtures; heating ventilating, and air-conditioning equipment, including wall heaters, ducts and plenums; and other equipment shall not be recessed in such a manner as to affect the insulation thickness unless:

Section 303.2.3 Recessed Equipment

- The total combined area affected is less than 1% of the overall area, or
- The entire roof, wall or floor is covered with insulation to the full depth required, or
- The effects of the reduced insulation are included in the calculations using the compressed insulation values from Table 303.2.1.1

Section 303.2.3 Recessed Equipment

- In all cases, air leakage through and around the recessed equipment to the conditioned space shall be limited in accordance with Sections 404.2.5 (residential) or 502.3.8 (commercial)
- *This means sealing or caulking to eliminate leakage.*

Chapter 4 – Residential Energy Conservation

- Section 401 – General
- Section 402 Building Thermal Envelope
- Section 403 Systems
- Section 404 – Electrical Power and Lighting Systems
- Section 405 – Simulated Performance Alternative

402.4.5 – Recessed Lighting.

- Recessed luminaires installed in the *building thermal envelope* shall be sealed to limit air leakage between conditioned and unconditioned spaces.
- All recessed luminaires shall be IC-rated (insulation contact).
- All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

403.1.1 – Programmable Thermostat.

- Where the primary heating system is a forced-air furnace, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. The t-stat shall include the capability to set back or temporarily operate the system to maintain zoned temperatures down to 55ºF or up to 85ºF. The initial set points shall be set no higher than 70ºF for heating and no lower than 78ºF for cooling.

403.9.1 Pool & Spa Heaters

- All pool and spa heaters shall be equipped with a readily *accessible* on-off switch that is mounted outside the heater to allow shutting off the heater without adjusting the thermostat setting.

403.9.2 Time Switches

- Time switches shall be installed on swimming pool heaters and pumps that can automatically turn the heaters and pumps off and on according to a preset schedule.
- Exceptions: Where standards require 24 hour operation; where pumps are required to operate solar and waste heat recovery systems; or where pumps are powered from on-site renewable energy generation.

403.9.4 Residential Pool Pumps and Pump Motors

- 1. Pool filter pump motors shall not be split-phase, shaded-pole, or capacitor start-induction run types.
- 2. Pool pumps and pool pump motors with a total HP ≥ 1 HP shall have the capability of operation at two or more speeds. The low speed shall have a rotation rate of no more than ½ of the motor's maximum rotation rate.

403.9.4 Residential Pool Pumps and Pump Motors

- 3. Pool pump motor controls shall have the capability of operating the pool pump at a minimum of 2 speeds. The default circulation speed shall be the residential filtration speed, with a higher speed override capability for a temporary period not to exceed one normal cycle or 24 hours, whichever is less.
- *Exception:* Solar pool heating systems shall be permitted to run at higher speeds during periods of usable solar heat gain.

Section 404 Electrical Power and Lighting Systems

- **404.1 Lighting Equipment .** A minimum of 50% of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps.
- **High-Efficacy Lamps.** Compact fluorescent lamps, T-8 or smaller diameter linear fluorescent lamps, or lamps with a minimum efficacy of:
  - 60 lumens per watt for lamps over 40 watts,
  - 50 lumens per watt for lamps over 15 watts to 40 watts, and
  - 40 lumens per watt for lamps 15 watts or less.

Industry Examples: Compact Fluorescent

- Pin Based Compact Fluorescents
- Triple or Quad Tube
- Multiple Wattages 18, 26, 32, and 42 watts
- Non Permanent, Self Ballasted Edison solutions available

Industry Examples: Linear Fluorescent

- Linear Fluorescents
- High Efficacy
- T8 and T5 lamp sizes
- Common Wattages 32, 28, and 54
- Economical & Widely available

Industry Examples: Metal Halide

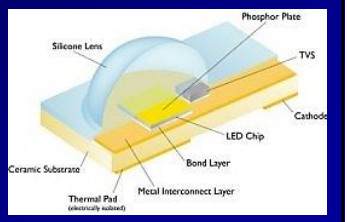
- High Wattage up to 1500W
- High Efficacy
- No Instant-On
- No Dimming
- Long Life

Industry Examples: Induction Lamps

- Ultra Long Life
- Choice of Color Temperature
- High Reliability
- High Efficacy

Industry Examples: LED

- Long Life
- Still maintains 70% light output at 50,000 hours
- Many different wattages
- Long warranties: 5 years



Chapter 5 – Commercial Energy Conservation

- Section 501 – General
- Section 502 – Building Envelope Requirements
- Section 503 – Building Mechanical Systems
- Section 504 – Service Water Heating
- Section 505 – Electrical Power and Lighting Systems
- Section 506 – Total Building Performance

Chapter 5, Table 503.2.3(3) HVAC examples

Package A/C	12.5 EER
Package Heat Pump	12.3 EER
Room A/C with louvered sides (Dependent on size)	8.5-9.7 EER
Room A/C w/o louvered sides (Dependent on size)	8.5-9.0 EER

504.7.1 Pool Heaters

- All pool heaters shall meet the minimum efficiency listed for that type of pool heater in Table 504.2 and shall be equipped with a readily *accessible* on-off switch that is mounted outside the heater to all shutting off the heater with adjusting the thermostat setting
- Exceptions: (Same as residential) where health standards require 24-hour operation, or solar and waste recovery, or pumps powered by on-site renewable energy generation.

505.2 Lighting Controls

- Lighting systems shall be provided with controls as follows:
- **505.2.1 Interior Lighting Controls.** Each area enclosed by walls or floor-to-ceiling partitions shall have at least one control device to independently control the general lighting within the space. Each manual device shall be readily accessible and located so the occupants can see the controlled lighting.

505.2 Lighting Controls

- **505.2.1 Interior Lighting Controls.**
- **Exception:** Remote location shall be permitted for reasons of safety or security when the remote control device has an indicator pilot light as part of or next to the control device and the light is clearly labeled to identify the controlled lighting.

505.2 Lighting Controls

- **505.2.1.1 Classrooms and Meeting Rooms.**
- A control device shall be installed in classrooms (except shop, laboratory and preschool through 12th grade classrooms), conference/meeting rooms and employee lunch and break rooms that automatically turns lighting off within 30 minutes of all occupants leaving a space.

505.2 Lighting Controls

- **505.2.1.2 All Other Spaces**
- Each control device shall be activated either manually by an occupant or automatically by sensing an occupant and be capable of overriding any time-of-day scheduled shut-off control for no more than four hours in accordance with Section 505.2.2.1

505.2.1.2 Additional Controls

- Additional controls are required in the following cases:
- Display or accent lighting shall have a separate control.
- Case lighting used for display purposes shall have a separate control device.

505.2.1.2 Additional Controls

- *Sleeping Units* in hotels, motels, boarding houses or similar buildings shall have at least one master switch at the main entry door that controls all permanently wired luminaires and switched receptacles, except those in the bathroom(s). Suites shall have a control meeting these requirements at the entry to each room or at the primary entry to the suite.

505.2.1.2 Additional Controls

- Supplemental task lighting, including permanently installed undershelf or undercabinet lighting, shall have a control device integral to the luminaires or be controlled by a wall-mounted control device provided the control device is readily accessible and located so that the occupant can see the controlled lighting.

505.2.1.2 Additional Controls

- Non-visual lighting such as is used for plant growth and food warming, shall have a separate control device.
- Demonstration lighting equipment that is for sale or for demonstrations in lighting education shall have a separate control device.

505.2.2 Automatic Lighting Shutoff

- Buildings larger than 5,000 square feet shall be equipped with an automatic control device to shut off lighting in the following areas:
- 1. On a scheduled basis, using time-of-day, with an independent program schedule that controls the interior lighting in areas that do not exceed 25,000 square feet and are not on more than one floor; or

505.2.2 Automatic Lighting Shutoff

- An occupant sensor that shall turn lighting off within 30 minutes of an occupant leaving a space; or
- A signal from another control or alarm system that indicates the area is unoccupied.

Lighting Control Devices

Occupancy Sensor

Time Clock

505.2.2 Automatic Lighting Shutoff

- *Exception:* The following shall not require an automatic control device:
- *Sleeping Unit* (mentioned earlier: hotels, motels, boarding houses or similar buildings)
- Lighting intended for 24-hour operation
- Lighting in spaces where patient care is directly provided.
- Spaces where an automatic shutoff would endanger occupant safety or security

505.2.2.2 Holiday Scheduling

- If an automatic time switch control device is installed in accordance with 505.2.2 , item 1 (slide 75), it shall incorporate an automatic holiday scheduling feature that turns off all loads for at least 24 hours, then resumes the normally scheduled operation.
- *Exception:* Retail stores and associated malls, restaurants, grocery stores, places of religious worship and theaters.

505.2.4 Exterior Lighting Controls

- Lighting for all exterior applications not exempted in Section 505.1 (50% dwelling-high efficacy lamps, emergency lighting that is off during normal operations, lighting necessary for health or life safety, and gas lighting systems), shall have automatic controls capable of turning off exterior lighting when sufficient daylight is available or when the lighting is not required during nighttime hours.

505.2.4 Exterior Lighting Controls

- Lighting not designated for dusk-to-dawn operation shall be controlled by either a combination of a photosensor and a time switch, or an astronomical time switch.
- Lighting designated for dusk-to-dawn operation shall be controlled by an astronomical time switch or photosensor.
- All time switches shall be capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

505.2.4 Exterior Lighting Controls

- *Exception:* Lighting for covered vehicle entrances or exits from buildings or parking structures where required for safety, security, or eye adaption.

505.4 Exit Signs

- Internally illuminated exit signs shall not exceed 5 watts per side.

Lighting Limitations in Retail Areas – (Table 505.3 Note b.)

- We'll start with Area 2
- .6W PER FOOT PLUS 1000 WATTS
- Examples:
- CAR DEALERSHIPS
- SPORTING GOODS
- SMALL ELECTRONICS

Lighting Limitations in Retail Areas– (Table 505.3 Note b.)

- Area 3
- 1.4W PER FOOT PLUS 1000 WATTS
- Examples:
- FURNITURE
- CLOTHING
- COSMETICS
- ARTWORK

Lighting Limitations in Retail Areas– (Table 505.3 Note b.)

- Area 4
- 2.5W PER FOOT PLUS 1000 WATTS
- Examples:
- JEWERLY
- CHINA
- CRYSTAL

Lighting Limitations in Retail Areas– (Table 505.3 Note b.)

- Area 1
- .6W PER FOOT PLUS 1000 WATTS
- The floor area for all products not listed in Retail Areas 2, 3, or 4.
- ***Exception***: Other merchandise categories are permitted to be included in Retail Areas 2 through 4, provided that justification documenting the need for additional lighting power based on visual inspection, contrast, or other critical display is approved by the authority having jurisdiction.

505.6.1 Exterior Building Grounds Lighting

- All exterior building grounds luminaires that operate at > than 100 watts shall contain lamps having a minimum efficacy of 60 lumens per watt unless the luminaire is controlled by a motion sensor or qualifies for one of the exceptions under Section 505.6.2.

Exterior Lighting Zones Table 505.6.2(1)

- Exterior lighting is divided into 4 zones with individual lighting power allowances provided for each type:
- Zone 1: Developed areas of national parks, state parks, forest land, and rural areas
- Zone 2: Areas predominately consisting of residential zoning, neighborhood business districts, light industrial with limited nighttime use and residential mixed use areas
- Zone 3: All other areas
- Zone 4: High activity commercial districts in major metropolitan areas as designated by the local land use planning authority

Energy Efficiency 505.2.1.3

- – Additional Controls are necessary for:
- Display or Accent Lighting
- Case Lighting
- Hotel & Guest Room Lighting – master control at main room entry for lights and switched receptacles
- Task Lighting (Under-shelf and under-cabinet)
- Non-visual Lighting (Plant & Food warming)
- Lighting that is for sale (such as in Home Depot or Lowe's)

Display or Accent Lighting

Hotel & Motel Lighting Control

Food Warming Lights

Energy Efficiency 505.2.4

- Exterior Lighting Control not exempted elsewhere in the Code:
- Must be on an automatic control such as a photosensor or astronomical time switch (time clock) that is capable of automatically turning off the exterior lighting when sufficient daylight is available or if lighting is not required.

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Exterior Lighting Control

Photoelectric Sensor

Time Clock

FLORIDA BUILDING CODE, BUILDING

CHAPTER 27 ELECTRICAL

- Adopts NFPA 70 (The National Electrical Code)
- In Florida, NFPA 70-2008 was adopted in October of 2009.
- NEC adoption will always lag behind it's publication date because FL Bldg Code is revised 1 year ahead of NEC Releases.

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Section 424 – Swimming Pools and Bathing Places (Public & Private)

Part 1 – Public Pools

Part 2 – Private Swimming Pools

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424.1.4 Electrical Systems

- 424.1.4.1 – Follow Chapter 27 FBC-B (NEC Article 680)
- 424.1.4.2 – Artificial lighting shall be provided at all pools which are used at night or if natural lighting is not sufficient.

424.1.4 Electrical Systems

- 424.1.4.2.1 – Outdoor pool lighting. Overhead – min. 3 foot candles at surface. Underwater – min. ½ watt per square foot of pool water surface area.

424.1.4 Electrical Systems

- 424.1.4.2.2 – Indoor pool lighting. Overhead – min. 10 foot candles at surface. Underwater – 8/10 watt per square foot of pool water surface area.

Section 424 – Swimming Pools

Still in **Part 1** Public Pools

424.1.4.2.3 - Underwater lighting:

Voltage to fixture limited to max of 15 volts. Max 300 Watts

Section 424 – Swimming Pools and Bathing Places

Part 1 – Public Pools

424.1.4.2.4 Overhead service wiring shall not pass within an area extending a distance of 10' horizontally away from the inside edge of the pool walls, diving structures, observation stands, towers or platforms. Compliance with the currently adopted *National Electrical Code©,* NFPA 70 is also allowed.

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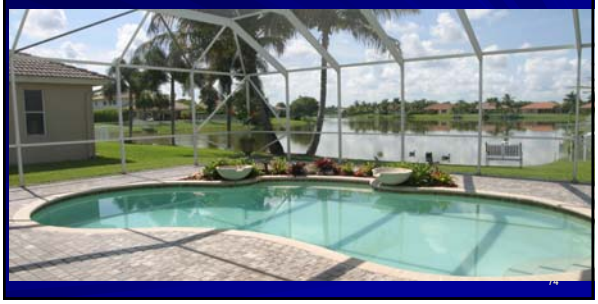
Section 424 – Swimming Pools and Bathing Places

Part 2 – Private Swimming Pools



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Section 424 – Swimming Pools and Bathing Places

Part 2 – Private Swimming Pools

424.2.17.1.9

1. Doors and Windows providing direct access from a dwelling to the pool must have an exit alarm complying with UL 2017. (Minimum Sound dB, hard wiring from sensor to module, bypass switch that will re-instate after 15 seconds.)

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Section 424 – Swimming Pools and Bathing Places

Part 2 – Private Swimming Pools

424.2.17.1.9

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Florida Building Code Residential

- Chapter 41 – Private Swimming Pools
- R4101.16 – Electrical wiring and equipment shall comply with chapter 27 of the Florida Building Code – Building. (The NEC©)

A quick review of NEC© 2008 - 680.22(4) GFCI Protection

- (B) GFCI Protection.
- Outlets supplying pool pump motors from branch circuits with short-circuit and ground-fault protection rated 15 or 20 amperes, 125 volt or 240* volt, single phase, whether by receptacle or direct connection, shall be provided with ground-fault circuit-interrupter protection for personnel.

FBC Waiver

- …… **BUT**, FBC is waiving the GFCI requirement for 1 & 2 family dwellings for permanent pool pump motors that are hard wired.
- **Also:** The 2010 FBC requires speed control for pool pumps in dwellings. This is an effort to meet energy efficiency requirements enacted by the Energy Conservation volume of the FBC.

FBC Chapter 9: Fire Protection Systems

- **904.11 Commercial Cooking Systems**
- **904.11.2 System Interconnections.** The actuation of the fire suppression system shall automatically shut down the fuel or electrical power supply to the cooking equipment. The fuel or electrical supply reset shall be manual.

Section 913 Carbon Monoxide Protection

- Florida Statute 553.885 now requires Carbon Monoxide Protection.
- FBC 913 states: Every building having a fossil-fuel burning heater or appliance, a fireplace, or an attached garage, shall have an operational carbon monoxide detector installed within 10 feet of each room used for sleeping purposes.
- In new construction, primary power shall come from building wiring, with battery backup.
- Combo units for smoke & CO shall be listed or labeled by a NRTL.

Florida Building Code CO (Carbon Monoxide) Detectors

- *BOAF was asked to interpret what constitutes new construction . In a determination from 2009, the BOAF interpreted that remodeling or alterations constitutes new construction. The example cited was a Dormitory remodel that included an electric range being replaced with gas range; BOAF determined that CO detection was required.**
- ***Source: Doug Harvey, President, BOAF**

Carbon Monoxide Detector

Combo CO and Smoke Detector

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Florida Building Code Residential

- Part VIII deals with Electrical requirements for Residential 1 & 2 Family Dwellings. It refers to following the provisions of NFPA 70A – *National Electrical Code Requirements for One & Two Family Dwellings*. That means that the rules of the NEC shall be followed.

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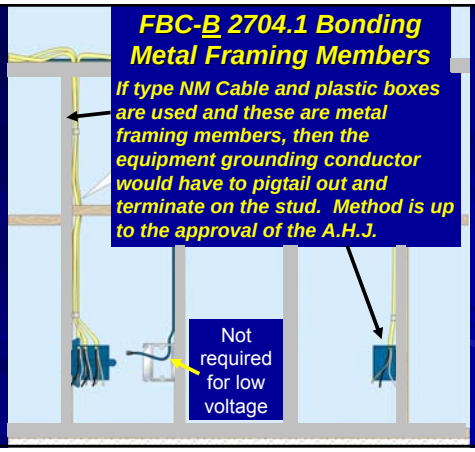
Bonding Metal Framing Members

FBC-B Section 2704.1 requires metal framing members to be grounded (bonded) to and EGC. This is repeated in the Residential Volume (1 & 2 Family Dwellings) also.

FBC-B 2704.1 Bonding Metal Framing Members



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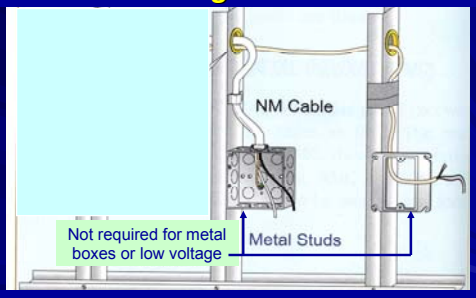
FBC –2704.1 Bonding Metal Framing Members



If a grounded (bonded) metal box is attached to the framing member, that shall be permitted as a grounding (bonding) means.

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Florida Building Code Residential

- **Section R314 Smoke Alarms**
- R314.3 Smoke alarms shall be installed in the following locations:
  1. In each sleeping room.
  2. Outside each separate sleeping area in the immediate vicinity of the bedroom.
  3. On each additional *story* of the *dwelling*, including basements but not including crawl spaces and uninhabitable *attics*.

Florida Building Code Residential

- R314.3.1 When *alterations*, repairs or *additions* requiring a *permit* occur, or when one or more sleeping rooms are added or created in existing *dwellings*, smoke alarms shall be located as required for new *dwellings*
- **Exceptions:**

1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the *addition* of a porch or deck are exempt from the requirements of this section.
2. Installation, *alteration* or repairs of plumbing or mechanical systems are exempt from the requirements of this section.

FBC-R Chapter 13 Mechanical

- **Appliances in attics.**
- **M1305.1.3.1 Electrical requirements.** A lighting fixture controlled by a switch located at the passageway opening and a receptacle outlet near the equipment, shall be provided so as to light the passageway and service area and shall be installed in accordance with Chapter 33 (NEC) of this code.

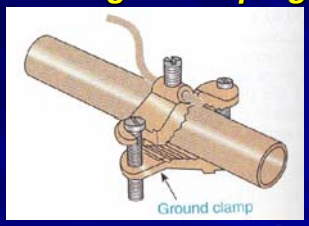
FBC-R Chapter 13 Mechanical

- **Appliances under floors.**
- **M1305.1.4.3 Electrical requirements.** A lighting fixture controlled by a switch located at the required passageway opening and a receptacle outlet at or near the appliance location, shall be provided in accordance with Chapter 33 (NEC) of this code.

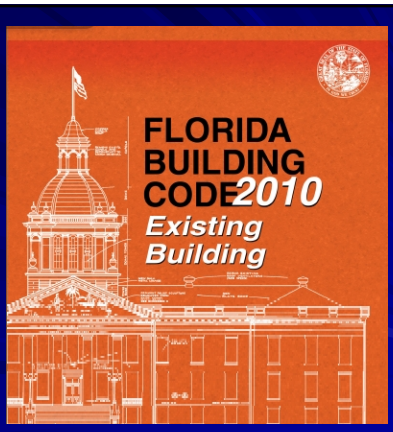
FBC-R Chapter 24 – Fuel Gas

- **G2410.1 Grounding** – Each above-ground portion of a gas piping system upstream from (beyond) the equipment shutoff valve shall be electrically continuous and bonded to any grounding electrode as defined by Chapter 33 (NEC) of this code.
- **G2411.1 Gas Pipe Bonding** – Each above-ground portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path.

FBC-R Chapter 24 – Fuel Gas Bonding Gas Piping



However - Gas piping shall be considered to be bonded where it is connected to gas utilization equipment that is connected to the equipment grounding conductor of the circuit supplying that equipment.



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FBC-EB Chapter 2 Definitions

EXISTING BUILDING – A building, structure or portion of a building or structure which has been previously legally occupied or used for its intended purpose (had a C/O issued). (FBC cannot validate an illegal structure by permitting use of these rules, since this code may be more lenient than new construction).

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FBC-EB Chapter 5 - Repairs

- Section 507.1:
- Grounding type receptacles can replace non-grounding receptacles if an **equipment ground conductor** (path) is available. (More on this later)
- Frames of Ranges, Wall Mounted Ovens, Counter Mounted Cook Tops and Dryers shall be permitted to be grounded (bonded) to the **Grounded Conductor (Neutral)** as permitted in NEC 250.140 Exception (Only in existing locations where no Equipment Grounding Conductor is present).

FBC-EB Chapter 5 - Repairs

- **507.1.2**
- OK to replace Edison Base plug fuses if no evidence of tampering is apparent.

FBC-EB Chapter 6 – Alterations Level 1 (Removing & Replacing Wall Finishes or Coverings)

608.1 Existing wiring and equipment.

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

608.1.2 Replacement of receptacles.

For replacement of non grounding receptacles with grounding-type receptacles – follow 250.130 (C) in the NEC. (Attach to the GEC or the GE System)

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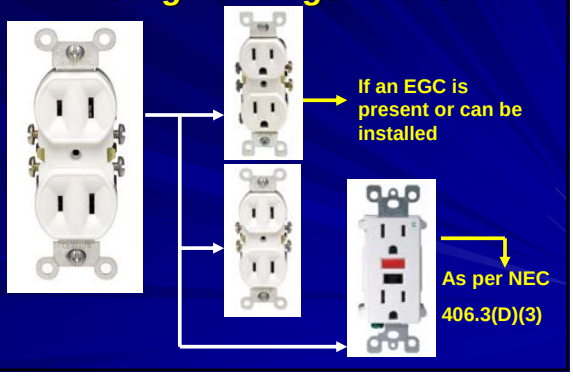
Receptacle Replacement in Existing Buildings – Level 1



FBC-EB Chapter 7 – Alterations Level 2

(Reconfiguration of space, add or subtract doors or windows, addition of any system)

Section 708 – Electrical

708.1 New Installations. All newly installed electrical equipment and wiring relating to work done in any work area shall comply with the materials and methods requirements of Chapter 27 of FBC-B (NEC).

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FBC-EB Chapter 7 – Alterations Level 2

(Reconfiguration of space, add or subtract doors or windows, addition of any system)

- Section 708.3.7.1 – Existing electrical wiring and equipment undergoing repair or replacement shall be permitted to be repaired or replaces with like material.

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FBC-EB Chapter 4 – Alterations Level 3

- **405.1 Scope.** Level 3 *alterations* apply where the *work area* exceeds 50% of the aggregate area of the building and made within any 12-month period.
- Follow FBC-B Chapter 27 electrical requirements (NEC rules).

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FBC - Existing Buildings Chapter 9 Change of Occupancy

Section 908 – Electrical - Where the occupancy of an *existing building* or part of an *existing building* is changed to one of the special occupancies as described in Chapter 27 of the FBC (NEC, Chapter 5), the electrical wiring and equipment shall also comply with the specific requirements of that Chapter (Follow the NEC requirements for the various Chapter 5 locations).

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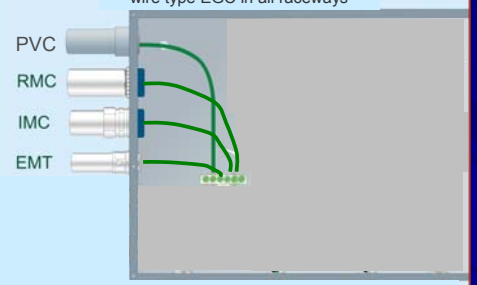
Local Amendments to the Florida Building Code

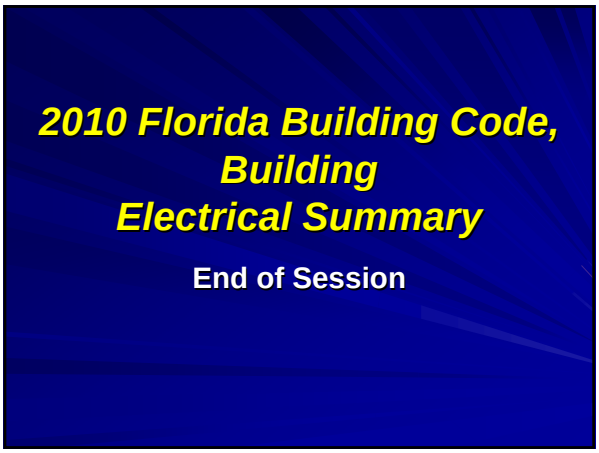
- Pinellas County has 2 local amendments that impact electrical installations.
- Surge Arrestors shall be installed on all services.
- Equipment grounding conductors shall be installed in all raceways.

Pinellas County - Service Surge Protection Required

Pinellas County requirement for a wire type EGC in all raceways



Steel Raceway manufacturers have spent a lot of time and money getting their raceways listed as an EGC. They didn't become aware of this requirement in 1985 when it was enacted and perhaps don't feel they couldn't defeat it after all these years.


2010 Florida Building Code,
Building
Electrical Summary
End of Session