

**CITY OF NAPLES**

**CONDOMINIUM**

**BUILDING CODE FORUM**

EDUCATE AND INFORM

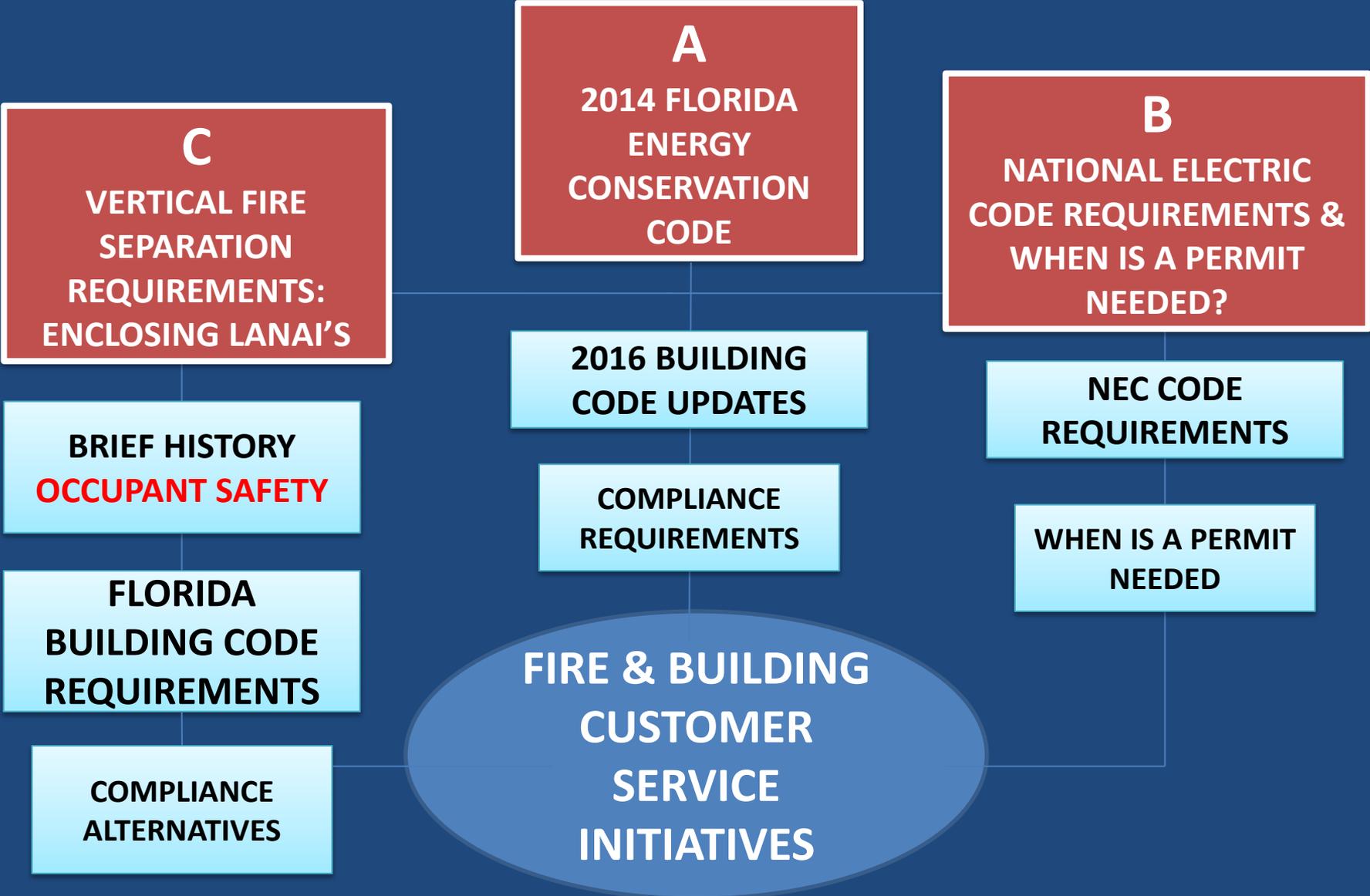
**FLORIDA BUILDING CODE**

**REQUIREMENTS**

Oct. 2016



# BUILDING CODE DISCUSSION



## FLORIDA ENERGY CONSERVATION CODE

The Energy Conservation Code regulates the design and construction of buildings for the effective use and conservation of energy over the useful life of the building

## FLORIDA ENERGY CONSERVATION CODE

The current 5<sup>th</sup> edition of the FBC effective date was 6/30/15. Changes in this edition increased the required energy efficiencies for building assemblies including fenestration.

# FLORIDA ENERGY CONSERVATION CODE

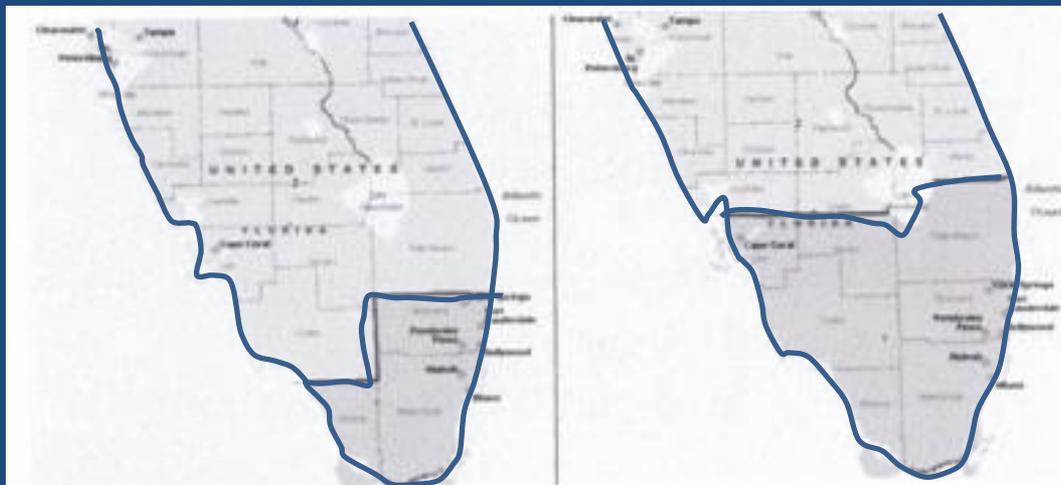
## SWFL CLIMATE ZONE-1

### EXPANSION

2010 FBC

CURRENT EDITION  
FBC

MONROE  
BROWARD  
MIAMI-DADE



LEE  
COLLIER  
MONROE  
MIAMI-DADE  
BROWARD  
PALM BEACH  
HENDRY

# FLORIDA ENERGY CONSERVATION CODE

## CODE COMPLIANCE

- GLAZED FENESTRATION SHGC

\*THE RATIO OF SOLAR HEAT GAIN ENTERING THE SPACE THROUGH THE FENESTRATION

2010 FECC

SHGC = 0.25

CURRENT EDITION  
FECC

SHGC = 0.25

# FLORIDA ENERGY CONSERVATION CODE

## CODE COMPLIANCE

- GLAZED FENESTRATION U-FACTOR

\*THE COEFFICIENT OF HEAT TRANSMISSION  
THROUGH THE FENESTRATION

2010 FECC

$U = 1.20$

CURRENT EDITION

FECC

FIXED GLASS  $U = 0.50$

OPERABLE GLASS = 0.65

ENTRANCE DOORS = 1.10

# FLORIDA ENERGY CONSERVATION CODE

## FAQ'S

- Q. How does the Energy Code Effect my condo if the doors and windows are replaced?
- A. The new replacement units will need to comply with the new energy efficiency requirements of the Code

# FLORIDA ENERGY CONSERVATION CODE

## FAQ'S

- Q. What type of windows and doors will meet the increased efficiency requirements of the Code?
- A. The new replacement units will need to be insulated glass and most likely have a low-E coating applied to the glass. Single pane units will no longer meet Code requirements.

# FLORIDA ENERGY CONSERVATION CODE

## FAQ'S

- Q. What if the HOA approved window glass does not meet the new Code requirements?
- A. The HOA will have to update their documents to only include glass that meets the new Energy Code. The City has allowed waivers this season but will not allow them in the future unless there are special circumstances.

# FLORIDA ENERGY CONSERVATION CODE

## FAQ'S

- Q. Will all the new doors and windows have to meet the new energy efficiency requirements?
- A. Yes but not all units equally, the Code allows for an area-weighted average U-factor requirement. The code also allows SHGC adjustments(dependent on the orientation of the units).

# FLORIDA ENERGY CONSERVATION CODE

## FAQ'S

- area-weighted U-factor example:

$$\frac{(\text{windows})\text{Area} \times \text{U-factor} + (\text{doors})\text{Area} \times \text{U-factor}}{\text{Total Area}}$$

Replacement windows: Two 8 sf operable windows - 16 sf @ 1.0 U = 16

Replacement sliding glass doors: Four 100 sf doors – 100 sf @ 0.50 U = 50

$$\frac{16(U) + 50(U)}{116(\text{total area})} = .57 < .65(\text{reqd } U) \text{ OK}$$

## NATIONAL ELECTRIC CODE (NEC)

The purpose of the NEC  
is the practical  
safeguarding of persons  
and property from  
hazards arising from the  
use of electricity

## NATIONAL ELECTRIC CODE (NEC)

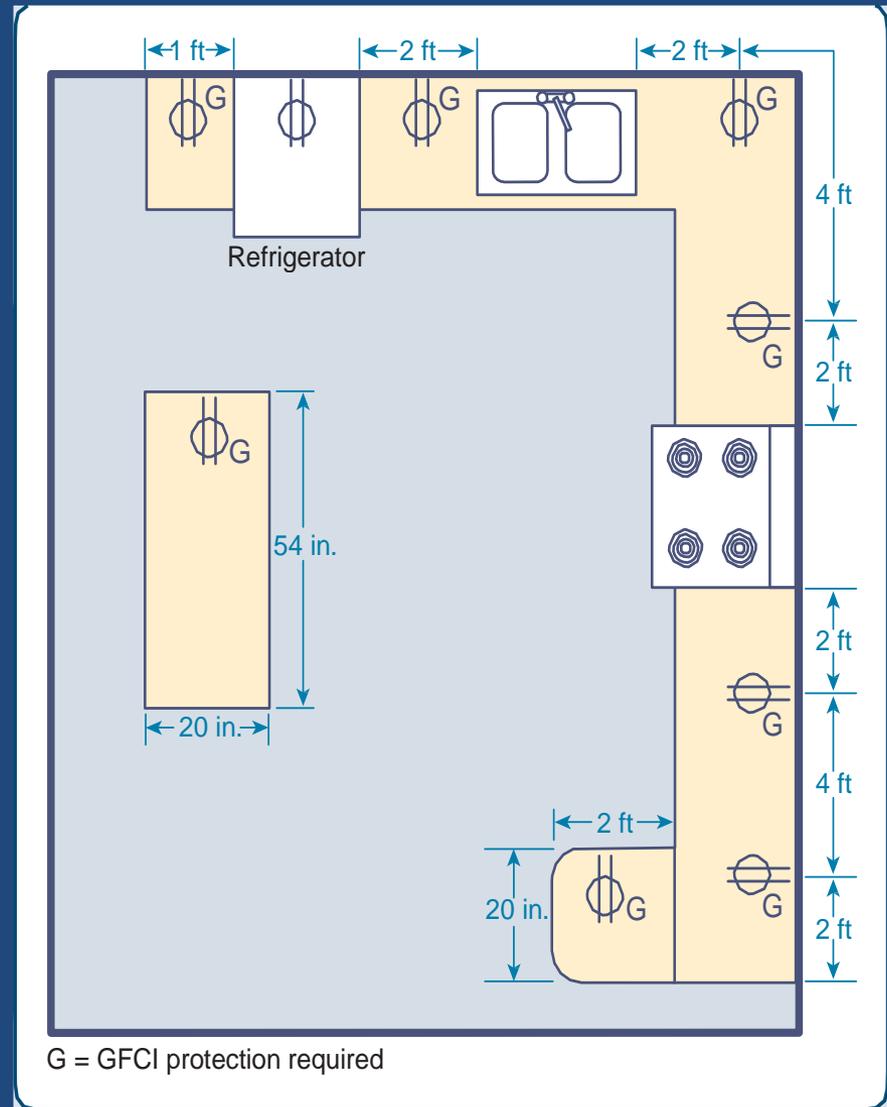
**The Building Department consistently has questions from residents regarding electrical outlet locations required during renovation work in the following areas:**

- Kitchen/Bath Countertop Locations**
- Wall Space Locations**

# NATIONAL ELECTRIC CODE (NEC)

## KITCHEN /BATH COUNTERTOP RECEPTACLES

- Receptacles shall be fed from two or more of the required 20-ampere small appliance branch circuits and GFCI protected
- The maximum permitted height (20 in.) for a receptacle outlet serving a countertop is based on the standard dimension measured from the countertop to the bottom of the cabinets located above the countertop. This provision allows multi-outlet assemblies installed on the bottom of the upper cabinets to be used as the required countertop receptacle outlet(s).

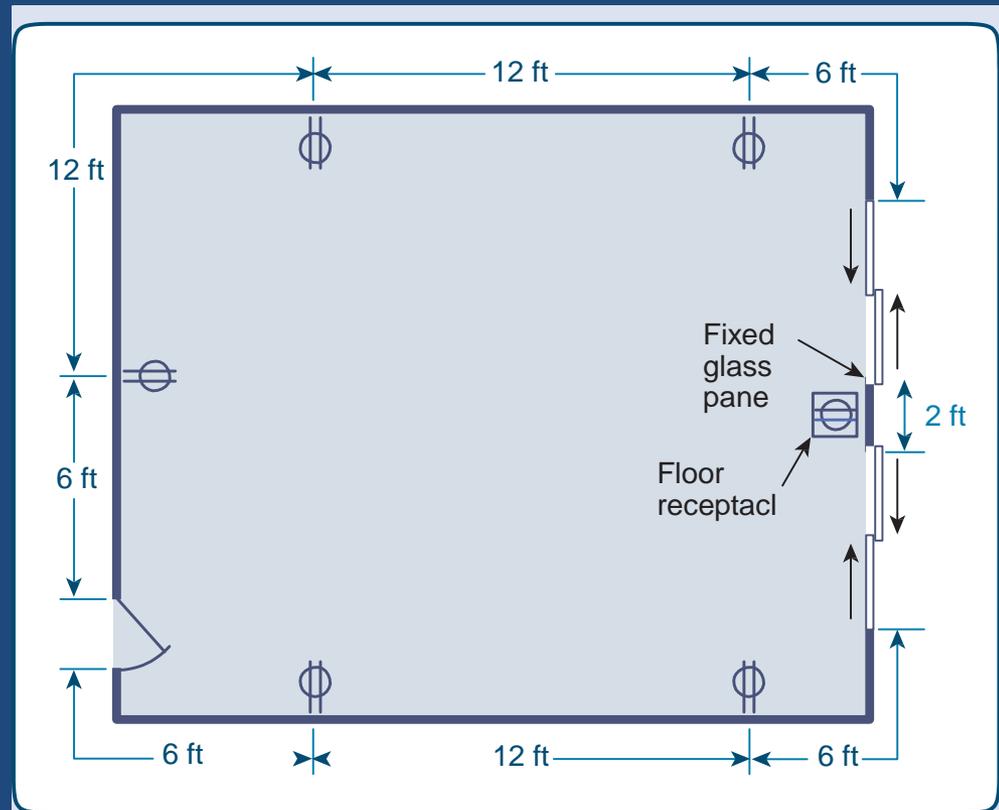


**EXHIBIT 210.29** Dwelling unit receptacles serving countertop spaces in a kitchen and arranged in accordance with 210.52(C).

# NATIONAL ELECTRIC CODE (NEC)

## WALL RECEPTACLES

- Receptacles shall be installed such that no point measured horizontally along the floor line of any wall space is more than 6 feet from a receptacle outlet. If new devices or existing devices are replaced during construction all new devices will need to be upgraded to ARC FAULT Protected devices.



**EXHIBIT 210.27** Typical room plan view of the location of dwelling unit receptacles meeting the requirements of **210.52(A)**.

# NATIONAL ELECTRIC CODE (NEC) WHEN IS A PERMIT NEEDED

- Permits are required for all electrical work
- Removal and replacement of kitchen and bathroom countertops and sinks(if the sink location does not change) does not require a permit
- Removal and Replacement of kitchen and bath cabinets and countertops does require a permit. Electrical GFCI protected receptacles shall be required to be installed in compliance with the NEC.

## VERTICAL FIRE SEPARATION

Florida Building Code section 705.8.5 provides for the protection against fire spreading vertically along the outside of the building from one floor up to the floor above.

## VERTICAL FIRE SEPARATION

There have been a few, very tragic occurrences of fires spreading up the outside of a building via unprotected openings which resulted in many injuries and the loss of life.

## VERTICAL FIRE SEPARATION

The most widely known occurrences were in Las Vegas in 1980 and 1981. The MGM fire in 1980 killed 87 people and injured 650.

## VERTICAL FIRE SEPARATION



The Hilton Fire just a few months later in 1981 killed 8 people and injured 200. Fire spread vertically up the outside of the building through unprotected openings

## VERTICAL FIRE SEPARATION

As tragic as the fires were, they prompted changes in high rise fire safety codes that have saved lives.

Fire sprinkler, fire alarms and modifications to the vertical opening separation requirements were added to the Building Codes.

## VERTICAL FIRE SEPARATION

Florida Building Code section 705.8.5 requires exterior openings such as windows and doors in exterior walls to be protected from the vertical spread of fire.

## VERTICAL FIRE SEPARATION

Openings in exterior walls in Buildings more than 3 stories that are not fully sprinklered, must be separated vertically by 36" min. or horizontally by 30" min. or an opening protection of 1-hour fire rating.

## VERTICAL FIRE SEPARATION

Lanais when enclosed to enlarge the condominium units living space can result in non-compliance with the vertical separation requirements of the Code.

# VERTICAL FIRE SEPARATION

## **Alternative Methods of Compliance**

In years past, City of Naples Building Officials have accepted various methods of achieving compliance with vertical fire protection requirements. At times, that has caused some confusion. In 2011, in an effort to standardize these methods and obtain code compliance, the City engaged the services of a licensed fire protection engineer (FPE) to research the code and recommend methods of achieving an alternative materials, design, and method of construction and equipment compliance with FBC Section 705.8.5. A detailed report from the FPE is available from the Building Department, but overall direction for compliance is to provide a sprinkler system.

# VERTICAL FIRE SEPARATION

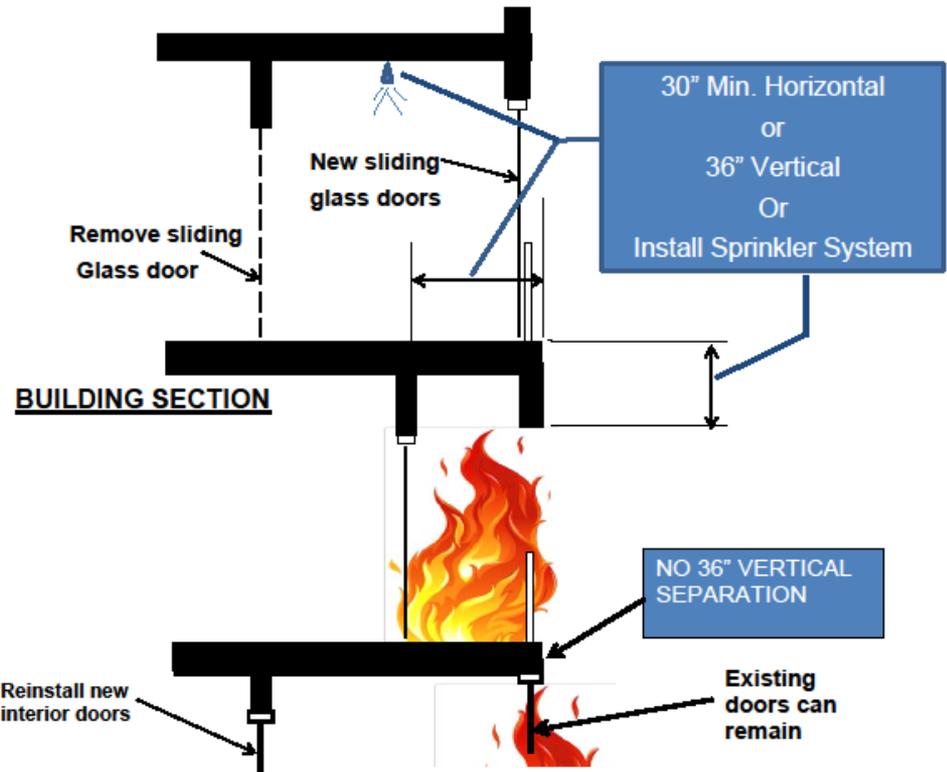
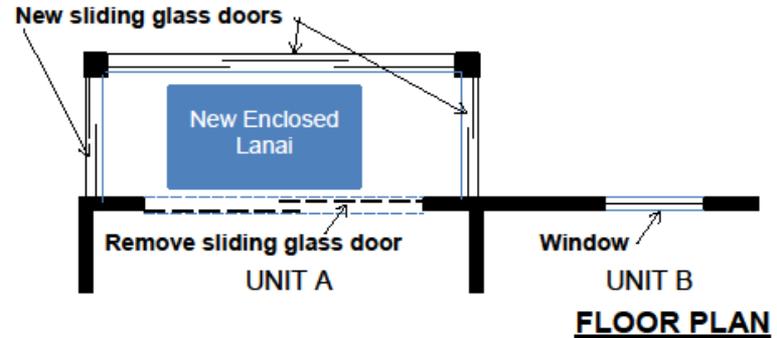
## **Alternative Methods of Compliance**

In compliance with FBC section 104.11. An alternative method of code compliance shall be approved where the Building Official finds that the proposed design is satisfactory and complies with the intent of the provisions of the code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed by the code in quality, strength, effectiveness, fire resistance, durability and safety. Fire sprinklers designed by an engineer and approved by Fire inspectors can be an approved alternative means of code compliance.

# VERTICAL FIRE SEPARATION

## Compliance Alternatives

### Buildings More Than 3 Stories Requirements for Enclosing Lanai's



# VERTICAL FIRE SEPARATION

## FAQ's

- Q. What if my Lanai was originally constructed enclosed but it is not in compliance with the vertical fire separation requirements?
- A. If the building was originally approved and constructed with enclosed lanais then the building is existing non conforming and can remain. Any changes to the lanais must not make the building less safe. Therefore the sliding glass doors can be replaced.

# VERTICAL FIRE SEPARATION

## FAQ's

- Q. What if my Lanai was enclosed, with or without a permit, but it is not in compliance with the vertical fire separation code requirements?
- A. Code compliance for vertical fire separation will apply when an alteration permit is submitted/issued for the condo, such as replacement of the sliding glass doors/windows or reconfiguration of interior space. One of the compliance alternatives must be provided. Most often the alternative provided is the sprinkler system. Kitchen/bath cabinet replacement (like for like) or mechanical change out would not trigger compliance with vertical separation code requirements.

# VERTICAL FIRE SEPARATION

## FAQ's

- Q. What type of sprinkler system is required?
- A. A sprinkler contractor can design a system that will be in compliance with the alternative means of code compliance. An existing system can be extended into the lanai or a new system can be provided using water from a common area system, nearby stand pipe, or domestic water at the units point of service (depending on water pressure:50-60psi). A Florida licensed engineer will need to fill out the required department form and submit it along with the design as part of the permit application.

# VERTICAL FIRE SEPARATION

## FAQ's

- Q. What if work is required in common areas of the Building?
- A. The HOA is responsible for common areas therefore any work in the common areas must be permitted separately by the condo association, or a letter provided by the HOA approving the proposed work and submitted with the individual unit owners permit.

# VERTICAL FIRE SEPARATION

## FAQ's

- Q. What if a sprinkler system or other code compliant alternative cannot be provided?
- A. The only alternative then is to reinstall the interior doors at the original location. They can be pocket type doors to maximize the clear opening. Then the exterior lanai doors can remain or be replaced.

# FIRE & BUILDING

## CUSTOMER SERVICE INITIATIVES

- Unlike many Municipalities Naples City Building and Fire Departments work very closely together. Fire & Building plans examiners and inspectors are located together in the same offices. This close working relationship benefits the community in many ways.

# FIRE & BUILDING

## CUSTOMER SERVICE INITIATIVES

- Plan Reviews are coordinated together to limit the issues of Building & Fire code differences.
- Inspections are coordinated and at times performed together to maximize on site communication with customers.
- Building and Fire are working together to increase Fire staff to provide better service.

# FIRE & BUILDING

## CUSTOMER SERVICE INITIATIVES

- With increased Fire staff and additional outside Building inspection service providers both departments will expand the City's Customer Service Initiative to Condo Alteration projects in 2017. Larger Alteration projects will be provided expedited permit review and a dedicated Inspection Teams. This initiative has been successfully implemented for new commercial/multi family and larger new residential projects.