



**INDIAN RIVER COUNTY/CITY OF VERO BEACH  
BUILDING DIVISION**

1801 27<sup>th</sup> Street, Vero Beach, FL 32960  
772 226-1260

February 21, 2019

Reference: FBC Energy Conservation Code Section R501.7 as it relates to Replacement Windows

Subject: Florida Building Commission Declaratory Statement DS 2018-072

To all interested parties;

Effective immediately, this office will be enforcing the requirements of Florida Building Code Energy Conservation Code section R507.1 as concluded by The Florida Building Commission in the subject DEC statement.

The requirements of DS 2018-072 do not exempt renovated buildings. See FBC Energy Conservation Code section R101.4.2.

**Definition: Renovated Building:** *“A residential or nonresidential building undergoing alteration that varies or changes insulation, HVAC systems, water heating systems or exterior envelope conditions, provided the estimated costs of renovation exceeds 30 percent of the assessed value of the structure.”*

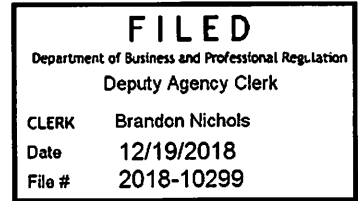
We have provided a copy of this DEC statement on our website for everyone’s convenience. Please feel free to contact our office should you need further clarification on the subject of this notice.

Thank you,

Sincerely,

Scott McAdam, CBO, MCP  
Indian River County/COVB Building Official  
1801 27th Street  
Vero Beach, FL 32960

STATE OF FLORIDA  
BUILDING COMMISSION



In the Matter of

BUILDING CODE ADVISORY BOARD  
OF PALM BEACH COUNTY

**DS 2018-072**

Petitioner.

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**DECLARATORY STATEMENT**

The foregoing proceeding came before the Florida Building Commission (Commission) by a Petition from Greg Miller, for the Building Code Advisory Board of Palm Beach County (Petitioner) that was received September 25, 2018. Based on the statements in the petition, the material subsequently submitted and the subsequent request by the Petitioner, the Commission states the following:

**Findings of Fact**

1. The petition is filed pursuant to, and must conform to the requirements of Rule 28-105.002, Florida Administrative Code.
2. Petitioner's representative in this matter is Greg Miller, 2300 N. Jog Road, West Palm Beach, FL 33411.
3. Petitioner is an entity created to advise the Palm Beach County Commission and other local governments in Palm Beach County regarding the uniform implementation, interpretation, and enforcement of the Florida Building Code.
4. Petitioner seeks clarification of section R501.7, Florida Building Code, Energy Conservation, 6th Edition (2017), as it pertains to the requirements for replacement windows in an existing residence.

5. Specifically, the Petitioner requests answers to the following questions:
  1. A customer has applied to replace all the windows in his home, which was constructed in 1990. The estimated cost of the replacement windows is less than 30% of the assessed value of the structure.
    - a. Does Section 501.7 of the Energy Conservation Volume require the replacement windows to meet the solar heat gain coefficient listed in Table R402.1.2 of the Florida Energy Conservation Volume?
    - b. Does Section 101.4.2 exempt the replacement windows since they don't exceed 30% of the assessed value of the structure?
  2. A customer has applied to replace a window in his home, which was constructed in 1990. The estimated cost of the replacement window is less than 30% of the assessed value of the structure.
    - a. Does Section 501.7 of the Energy Conservation Volume require the replacement window to meet the solar heat gain coefficient listed in Table R402.1.2 of the Florida Energy Conservation Volume?
    - b. Does Section 101.4.2 exempt the replacement window since it does not exceed 30% of the assessed value of the structure?

#### Conclusions of Law

6. The Commission has the specific statutory authority pursuant to Section 553.775(3)(a), Florida Statutes (2018) to interpret the provisions of the Florida Building Code by issuing a declaratory statement.

7. Section R101.4, Florida Building Code, Energy Conservation, 6th Edition (2017), states:

**R101.4 Applicability.**

Where, in any specific case, 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 a general requirement and a specific requirement, the specific requirement shall govern.

**R101.4.1 Mixed occupancy.**

Where a building includes both *residential* and *commercial* occupancies, each occupancy shall be separately considered and meet the applicable provisions of the *Florida Building Code, Energy Conservation—Commercial Provisions* or *Florida Building Code, Energy Conservation—Residential Provisions*.

**R101.4.2 Exempt buildings.**

Buildings exempt from the provisions of the *Florida Building Code, Energy Conservation*, include existing buildings except those considered renovated buildings, changes of occupancy type or previously unconditioned buildings to which comfort conditioning is added. Exempt buildings include those specified in Sections R101.4.2.1 through R101.4.2.4.

8. Section R102.1, Florida Building Code, Energy Conservation, 6th Edition (2017),

states:

**R102.1 General.**

The provisions of this Code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The *code official* shall be permitted to approve an alternative material, design or method of construction where the *code official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code.

**R102.1.1 Above code programs.**

The *code official* or other authority having jurisdiction shall be permitted to deem a national, state or local energy-efficiency program to exceed the energy efficiency required by this code. Buildings *approved* in writing by such an energy-efficiency program shall be considered in compliance with this code. The requirements identified as “mandatory” in Chapter 4 shall be met.

9. Chapter 2 [RE], Florida Building Code, Energy Conservation, 6th Edition (2017),

provides the following definitions:

**ALTERATION.** Any construction, retrofit or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a building, electrical, gas, mechanical or

plumbing system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

...  
**RENOVATED BUILDING.** A residential or nonresidential building undergoing alteration that varies or changes insulation, HVAC systems, water heating systems or exterior envelope conditions, provided the estimated cost of renovation exceeds 30 percent of the assessed value of the structure.

10. Section R405.5.3.4, Florida Building Code, Energy Conservation, 6th Edition (2017), states:

**R405.5.3.4 Maximum fenestration SHGC.**

The Proposed Design must have either an area-weighted average maximum fenestration SHGC of 0.50 or a window area-weighted average overhang depth of 4.0 feet or greater (all conditioned space windows must be included in the calculation). The area-weighted average maximum fenestration *U*-factor permitted using tradeoffs from Section R402.1.5 or R405 shall be 0.48 in Climate Zones 4 and 5 and 0.40 in Climate Zones 6 through 8 for vertical fenestration, and 0.75 in Climate Zones 4 through 8 for skylights. The area-weighted average maximum fenestration SHGC permitted using tradeoffs from Section R405 in Climate Zones 1 through 3 shall be 0.50.

11. Section R501.1, Florida Building Code, Energy Conservation, 6th Edition (2017), states:

**R501.1 Scope.**

The provisions of this chapter shall control the *alteration*, repair, addition and change of occupancy of existing buildings and structures.

**R501.1.1 Additions, alterations, or repairs: General.**

Additions, alterations, or repairs to an existing building, building system or portion thereof shall comply with Section R502, R503 or R504. Unaltered portions of the existing building or building supply system shall not be required to comply with this code.

12. Section R501.7, Florida Building Code, Energy Conservation, 6th Edition (2017), states:

**R501.7 Building systems and components.**

Thermal efficiency standards are set for the following building systems and components where new products are installed or replaced in existing buildings, and for which a permit must be obtained. New products shall meet the minimum efficiencies allowed by this code for the following systems and components:

Heating, ventilating or air-conditioning systems;  
Service water or pool heating systems;  
Lighting systems; and  
Replacement fenestration.

**Exceptions:**

1. Where part of a functional unit is repaired or replaced. For example, replacement of an entire HVAC system is not required because a new compressor or other part does not meet code when installed with an older system.
2. If the unit being replaced is itself a functional unit, such as a condenser, it does not constitute a repair. Outdoor and indoor units that are not designed to be operated together must meet the U.S. Department of Energy certification requirements contained in Section R303.1.2. Matched systems are required; this match may be verified by any one of the following means:
  - a. AHRI data
  - b. Accredited laboratory
  - c. Manufacturer's letter
  - d. Letter from registered P.E. State of Florida
3. Where existing components are utilized with a replacement system, such as air distribution system ducts or electrical wiring for lights, such components or controls need not meet code if meeting code would require that component's replacement.
4. Replacement equipment that would require extensive revisions to other systems, equipment or elements of a building where such replacement is a like-for-like replacement, such as through-the-wall condensing units and PTACs, chillers and cooling towers in confined spaces.

13. Section R503.1.1.1, Florida Building Code, Energy Conservation, 6th Edition

(2017), states:

**R503.1.1.1 Replacement fenestration.**

Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable

requirements for *U*-factor and SHGC as provided in Table R402.1.2.

14. In response to the first part of Petitioner's first question, the answer is no. Pursuant to section R101.4.2, Florida Building Code, Energy Conservation, 6th Edition (2017), and the definition of "renovated building" found in chapter 2, Florida Building Code, Energy Conservation, 6th Edition (2017), the replacement windows in question are not required to meet the provisions of the energy conservation code, including the solar heat gain coefficient listed in Table R402.1.2.

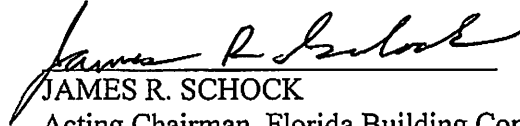
15. In response to the second part of Petitioner's first question, the answer is yes. Pursuant to section R101.4.2, Florida Building Code, Energy Conservation, 6th Edition (2017), and the definition of "renovated building" found in chapter 2, Florida Building Code, Energy Conservation, 6th Edition (2017), the project in question is exempt from the provisions of the energy conservation code.

16. In response to the first portion Petitioner's second question, the answer is no. Pursuant to section R101.4.2, Florida Building Code, Energy Conservation, 6th Edition (2017), and the definition of "renovated building" found in chapter 2, Florida Building Code, Energy Conservation, 6th Edition (2017), the replacement window in question is not required to meet the provisions of the energy conservation code, including the solar heat gain coefficient listed in Table R402.1.2.

17. In response to the second part of Petitioner's second question, the answer is yes. Pursuant to section R101.4.2, Florida Building Code, Energy Conservation, 6th Edition (2017), and the definition of "renovated building" found in chapter 2, Florida Building Code, Energy Conservation, 6th Edition (2017), the project in question is exempt from the provisions of the energy conservation code.

DONE AND ORDERED this 13<sup>TH</sup> day of DECEMBER, 2018, in St. Augustine, St.

Johns County, State of Florida.

  
\_\_\_\_\_  
JAMES R. SCHOCK  
Acting Chairman, Florida Building Commission



NOTICE OF RIGHT TO APPEAL

Petitioner and all other interested parties are hereby advised of their right to seek judicial review of this Order in accordance with Section 120.68(2)(a), Florida Statutes (2018), and Florida Rules of Appellate Procedure 9.110(a) and 9.030(b)(1)(C). To initiate an appeal, a Notice of Appeal must be filed with the Agency Clerk, Department of Business and Professional Regulation, 2601 Blair Stone Road, Tallahassee, Florida 32399-2203 and with the appropriate District Court of Appeal not later than thirty (30) days after this Order is filed with the Clerk of the Department of Business and Professional Regulation. A Notice of Appeal filed with the District Court of Appeal shall be accompanied by the filing fee specified by Section 35.22(3), Florida Statutes (2018).

CERTIFICATE OF FILING AND SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing order has been filed with the undersigned and furnished by U. S. Mail to the persons listed below this 19<sup>th</sup> day of December, 2018.

Brandon M. Nichols

Agency Clerk's Office  
Department of Business and Professional Regulation  
& Florida Building Commission  
2601 Blair Stone Road  
Tallahassee, Florida 32399-2203

Via U.S. Mail

Building Code Advisory Board of Palm Beach  
County  
Attn: Greg Miller  
2300 N. Jog Road  
West Palm Beach, FL 33411

Via Inter-Office or Email Delivery

Mo Madani, Planning Manager  
Codes and Standards Section  
Department of Business and Professional  
Regulation  
2601 Blair Stone Road  
Tallahassee, Florida 32399  
Mo.Madani@myfloridalicense.com

Marjorie Holladay  
Joint Administrative Procedures Committee  
Pepper Building, Room 680  
Tallahassee, Florida 32399-1300

# BCAB

Building Code Advisory Board of Palm Beach County

## DS 2018-072

<b>FILED</b>	
Department of Business and Professional Regulation Deputy Agency Clerk	
CLERK	Brandon Nichols
Date	9/25/2018
File #	

**PETITION FOR DECLARATORY STATEMENT  
BEFORE THE FLORIDA BUILDING COMMISSION**

**Company:** Palm Beach County Building Advisory Board  
**Address:** 2300 N Jog Rd, West Palm Beach, FL 33411

**Name:** Greg Miller, Aluminum Contractor  
**Title:** Chairman, PBC Building Code Advisory Board  
**Telephone:** (561) 233-5101  
**Facsimile:** (561) 233-2200  
**E-Mail:** [gregmiller59@gmail.com](mailto:gregmiller59@gmail.com)

**Petitioner's Attorney or Representative:** Shannon Fox  
Assistant County Attorney III  
Palm Beach County, Florida  
**Telephone:** (561) 355-2501  
**Facsimile:**  
**E-Mail:** [SXFox@pbcgov.org](mailto: SXFox@pbcgov.org)

**Statute(s), Agency Rule(s), Agency Order(s) and/or Code Section(s) on which the Declaratory Statement is sought:**

Sixth Edition (2017) Florida Building Code, Energy Conservation  
Portions of Chapters R1, R4, R5, C1 and C4

**Background:**

The Palm Beach County Building Code Advisory Board (BCAB) was established by a Special Act of the Florida Legislature originally in 1974, and most recently amended in 2001. The Board was created to advise the Palm Beach County Commission and other local governments in Palm Beach County regarding the uniform implementation, interpretation, and enforcement of the Florida Building Code. This advisory capacity provides the 39 incorporated municipalities within Palm Beach County with the most current and relevant code interpretations and rulings.

The 2010 Florida Building Code included the first separate volume dedicated to energy efficiency, the Energy Conservation volume (FECC). Since its adoption, there has been a lot of confusion concerning the applicability of the Energy Code requirements with respect to *replacement fenestrations*. Some code officials interpreted that *replacement fenestrations* are exempt from the Energy Code unless the entire scope of work constitutes a *renovated building*; while others felt the intent of the Code was that even one *replacement fenestration* should comply. The 2014 FECC attempted to clarify the issue by including *replacement fenestration* in the list of "Building systems and components" for which thermal efficiency standards are set. The 2017 FECC attempted to clarify the issue further by creating a new chapter to deal solely with requirements for existing buildings, *Chapter 5 - Existing Buildings*. Unfortunately, there are still varying interpretations regarding the applicability of these standards to replacement fenestrations on structures not classified as *renovated buildings*.

On behalf of all the municipalities of Palm Beach County, BCAB is seeking clarification on certain sections of the Sixth Edition (2017) Florida Building Code, Energy Conservation (FECC). BCAB will use Florida Building Commission guidance to facilitate official, yet non-binding, Advisory Notices to promote uniformity within Palm Beach County and thereby resolve the differences of interpretation currently in effect.

Specifically, BCAB is seeking clarification on the following classifications, scopes and requirements of the Florida Energy Conservation Code for both Residential and Commercial buildings.

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## CHAPTER 1 – SCOPE AND ADMINISTRATION

### Exempt Buildings

R101.4.2 (C101.4.2) Exempt buildings. Buildings exempt from the provisions of the *Florida Building Code, Energy Conservation*, include existing buildings except those considered renovated buildings, changes of occupancy type or previously unconditioned buildings to which comfort conditioning is added. Exempt buildings include those specified in Sections R101.4.2.1 through R101.4.2.4.

### Applicability of General vs Specific requirements

R101.4 (C101.4) Applicability. Where, in any specific case, 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 a general requirement and a specific requirement, the specific requirement shall govern.

### Alternative Materials, Methods, Designs

R102.1 (C102.1) General. The provisions of this Code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The *code official* shall be permitted to approve an alternative material, design or method of construction where the *code official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code.

## CHAPTER 2 – DEFINITIONS

R202 Alteration Any construction, retrofit or renovation to an existing structure other than repair or addition that requires a permit. Also, a change in a building, electrical, gas, mechanical or plumbing system that involves an extension, addition or change to the arrangement, type or purpose of the original installation that requires a permit.

R202 Renovated Building A residential or nonresidential building undergoing alteration that varies or changes insulation, HVAC systems, water heating systems or exterior envelope conditions, provided the estimated cost of renovation exceeds 30 percent of the assessed value of the structure.

## CHAPTER 4 – RESIDENTIAL ENERGY EFFICIENCY

R405.5.3.4 Maximum fenestration SHGC. The Proposed Design must have either an area-weighted average maximum fenestration SHGC of 0.50 or a window area-weighted average overhang depth of 4.0 feet or greater (all conditioned space windows must be included in the calculation). The area-weighted average maximum fenestration SHGC permitted using tradeoffs from Section R405 in Climate Zones 1 through 3 shall be 0.50.

## CHAPTER 5 – EXISTING BUILDINGS

Existing Buildings

R501.1 (C501.1) Scope. The provisions of this chapter shall control the alteration, repair, addition and change of occupancy of existing buildings and structures.

R501.1.1 Additions, alterations, or repairs: General. Additions, alterations, or repairs to an existing building, building system or portion thereof shall comply with Section R502, R503 or R504. Unaltered portions of the existing building or building supply system shall not be required to comply with this code.

Building Systems and Components

R501.7 (C501.7) Building systems and components. Thermal efficiency standards are set for the following building systems and components where new products are installed or replaced in existing buildings, and for which a permit must be obtained. New products shall meet the minimum efficiencies allowed by this code for the following systems and components:  
Heating, ventilating or air-conditioning systems;  
Service water or pool heating systems;  
Lighting systems; and  
Replacement fenestration.

Replacement Fenestrations

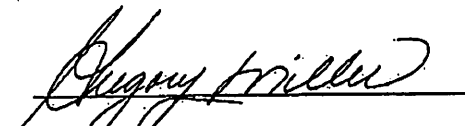
R503.1.1.1 (C401.2.1) Replacement fenestration. Where some or all of an existing fenestration unit is replaced with a new fenestration product, including sash and glazing, the replacement fenestration unit shall meet the applicable requirements for U-factor and SHGC as provided in Table R402.1.2 (C402.4).

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Questions

1. A customer has applied to replace all the windows in his home, which was constructed in 1990. The estimated cost of the replacement windows is less than 30% of the assessed value of the structure.
  - a. Does Section 501.7 of the Energy Conservation Volume require the replacement windows to meet the solar heat gain coefficient listed in Table R402.2.1.2 of the Florida Energy Conservation Volume?
  - b. Does Section 101.4.2 exempt the replacement windows since they don't exceed 30% of the assessed value of the structure?
2. A customer has applied to replace a window in his home, which was constructed in 1990. The estimated cost of the replacement window is less than 30% of the assessed value of the structure.
  - a. Does Section 501.7 of the Energy Conservation Volume require the replacement window to meet the solar heat gain coefficient listed in Table R402.2.1.2 of the Florida Energy Conservation Volume?
  - b. Does Section 101.4.2 exempt the replacement window since they don't exceed 30% of the assessed value of the structure?

For Building Code Advisory Board of Palm Beach County,

  
Greg Miller, Chair