# FLORIDA BUILDING CODE 6th Edition (2017)

## FORMAL INTERPRETATIONS

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- 2. Identification of Mechanical Equipment
- 3. Attachments of Ductwork to Air Handling Equipment
- 4. Insulation Requirements for Primary Condensate Drains
- 5. Retrofit of Windows, Doors, Garage Doors, Shutters and Skylights FBC Existing Building, Alteration Level I
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- 15. Permit requirements for Florida Building Code, Plumbing Appendix F
- 16. Smoke Control System testing in existing buildings undergoing Level 2 alterations.
- 17. Acceptable testing methods for Smoke Control Systems.
- 18. Duct sizing calculations.
- 19. Acceptable documents for the attachment of mechanical equipment during replacement.
- 20. Two-Way Radio Communication Enhanced Public Safety Signal Booster Systems.

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (# 1)

DATE:	October 12, 2017	
TO:	All Building Officials	100
FROM:	James DiPietro, Administrative Director	
SUBJECT:	Mechanical Code 602.2.1 Materials Exposed v	vithin Plenums.

This portion of the Interpretation concerns the residential portion of R-2 occupancies.

At its meeting of October 12, 2017, the Broward County Board of Rules and Appeals approved the following Formal Interpretation.

Section 602.2.1 of the 6th Edition (2017) Florida Mechanical Code requires materials exposed within plenums to be noncombustible or shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E 84-2013A.

CPVC Flowguard Gold Pipe, SDR11 was tested by Southwest Research Institute using a modified ASTM E-84 test methodology in the following sizes.

0.5 inch (nominal) water filled CPVC pipe: SwRI Project No. 01.04017.01.301b [1] 2.0 inch (nominal) water filled CPVC Pipe: SwRI Project No. 01.04017.01.301c [1] 0.5 inch (nominal) empty CPVC Pipe: SwRI Project No. 01.10083.01.158e 0.75 inch (nominal) empty CPVC Pipe: SwRI Project No. 01.10083.01.158f [1]

All four Modified ASTM E-84 Tests showed flame spread indices of not more than 25 and smoke-developed indices of not more than 50.

By accepting these four Modified ASTM-E 84 Tests, the Broward County Board of Rules and Appeals approved the use of CPVC Flowguard Gold Pipe, SDR11 installed in Mechanical Closets and Mechanical Equipment/Appliance Rooms used as plenums in the residential portion of R-2 Occupancies. Approval is limited to 0.5 inch (nominal) thru 2 inch (nominal) water filled CPVC and 0.5 inch (nominal) and 0.75 inch (nominal) empty CPVC pipe.

At its meeting of September 11, 2008 the above Interpretation was expanded to include the following language which applies to both commercial and residential occupancies:

CPVC piping may be accepted for use in plenums in instances where the manufacturers have tested their product with an approved testing agency to an acceptable alternate method to ASTM E-84 – "Standard Test Method for Surface Burning Characteristics of Building Materials". Evidence must be submitted to the Authority Having Jurisdiction (AHJ) that the piping has a flame spread index of not more than 25 and a smoke developed index of not more than 50 when tested in general accordance with ASTM E-84, 2009 Edition, Pipe can be tested empty or water filled and in various pipe diameters. EFFECTIVE DATE: OCTOBER 20, 2005

EFFECTIVE DATE: January 1, 2018

RE-ISSUED: October 12, 2017

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#2)

DATE:	October 12, 2017	
TO:	All Building Officials	
FROM:	James DiPietro, Administrative Director	James .
SUBJECT:	Identification of Mechanical Equipment.	

At the meeting of October 12, 2017 the Board approved an interpretation of Section 304.12, 6<sup>th</sup> Edition (2017) Florida Building Code, Mechanical (FMC). This section of the code requires marking of appliances (air conditioning equipment) serving different areas of a building other than where they are installed to uniquely identify the appliance and the area it serves.

The purpose of these sections is to easily identify equipment for servicing and in case of an emergency. An example would be multiple installations of appliances on a roof top of an office building, condominium, apartment building, etc. There is no requirement for identification of appliances contained in the Florida Residential Code.

### Formal Interpretation:

Section 304.12, 6<sup>th</sup> Edition (2017) Florida Building Code, Mechanical does not apply to buildings governed under the Florida Residential Code. These buildings include detached one-two family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress.

EFFECTIVE DATE: October 20, 2005 RE-ISSUED: October 12, 2017 EFFECTIVE DATE: January 1, 2018

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#3)

DATE:	October 12, 2015	
TO:	All Building Officials	$\sim 0^{2}$
FROM:	James DiPietro, Administrative Director	Jam - the
SUBJECT:	Attachments of Ductwork to Air Handling	Equipment.

At the meeting of October 12, 2017, BORA approved an interpretation of Section 603.9, Florida Mechanical Code, 6 edition (2017) and section 1601.4.1, FBC, Residential, 6 edition (2017).

These sections state attachment of rigid fibrous glass duct work to air-handling equipment shall be by mechanical attachment and attachment shall be by mechanical fasteners. These sections further define mechanical attachments for air distribution systems as screws, rivets, welds, interlocking joints crimped and rolled, staples, twist in (screw attachment, and compression systems created by bend tabs or screw tabs and flanges or by clinching straps.

Broward County has a long successful history of using UL181 A/P listed pressure-sensitive aluminum foil tape and UL 181 A/M glass fabric and mastic for attaching rigid fibrous glass duct board to cleaned sheet metal equipment flanges in residential applications. North American Insulation Manufacturers Association (NAIMA) is listed in the Reference Standards and Organizations sections of the FMC and FRC. NAIMA's Fibrous Glass Residential Duct Construction Standard states" Connections of fibrous glass duct board to carefully cleaned sheet metal equipment flanges may be made with UL A/P listed pressure-sensitive aluminum foil tape."

### **Formal Interpretation:**

The use of UL 181 A/P listed pressure sensitive aluminum tape or UL 181 A/M glass fabric and mastic are acceptable methods of attaching rigid fibrous glass duct work to cleaned sheet metal equipment flanges in residential applications.

EFFECTIVE DATE: October 20, 2005 RE-ISSUED: October 12, 2017 EFFECTIVE DATE: January 1, 2018

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#4)

DATE:	October 12, 2015	
TO:	All Building Officials	$\cdot$
FROM:	James DiPietro, Administrative Director	James - the
SUBJECT:	Insulation Requirements for Condensate D	Prains.

At its meeting of October 12, 2015, BORA approved an interpretation of the following Sections of the 6 Edition (2017), Florida Building Code, Mechanical 307.2.1; Residential M1411.3, and 1206.11; Energy Conservation C403.2.10, and R403.4. See attached code sections.

Questions have been raised about the code requirement to insulate condensate drains that were installed vertically or at an angle (pitched).

All condensate drain lines are required to have a slope to insure proper drainage and therefore are not perfectly horizontal. The code does not address the insulation of condensate drains lines that are installed vertical or at an angle (pitched). It appears the intent of the code was to apply to condensate piping which is installed in a relatively horizontal manner.

**Formal Interpretation:** 

All primarily horizontal condensate drains pipes within unconditioned areas shall be insulated to prevent condensation from forming on the exterior of the drain pipe. Only primary condensate drain lines within unconditioned areas installed in a relatively horizontal manner are required to be insulated.

EFFECTIVE DATE:October 20, 2005RE-ISSUED:October 12, 2017EFFECTIVE DATE:January 1, 2018

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# **BROWARD COUNTY** BOARD OF RULES AND APPEALS

# FBC 6<sup>th</sup> Edition (2017) **FORMAL INTERPRETATION (#5)**

**DATE: October 12, 2017** 

All Building Officials TO:

FROM:

James DiPietro, Administrative Director

**SUBJECT:** Retrofit of Windows, Doors, Garage Doors, Shutters and Skylights FBC Existing Building, Alteration Level I

At its meeting of October 12th, 2017 the Board approved an interpretation of Retrofit of Windows, Doors, Garage Doors, Shutters and Skylights, for detached one and two family dwellings, and multiple single family dwellings, (townhouses) with common roof height < 30feet.

1. A Florida Professional Engineer or Architect may modify the buck or fasteners as specified in a Notice of Acceptance. Such modification must be documented with a signed and sealed letter or drawing.

2. To obtain the required design pressure for a specific opening at a specific site, an individual must utilize one of the following and submit documentation as indicated.

a) A site-specific plan (signed and sealed) by a Florida Professional Engineer or Architect, indicating the location of all retro openings and the required design pressures.

b) A site-specific plan (not sealed) indicating the location of all retro openings accompanied by a worst case design pressure chart (signed and sealed) prepared by a Florida P.E. or Architect.

c) A site-specific plan (not sealed) indicating the location of all openings and indicating the required design pressures based on the Broward County Fenestration Voluntary Wind Load Chart. (see attached chart).

3. Buildings with a (height) > 30 feet or more shall have a site-specific design (signed and sealed) by a Florida Professional Engineer or Architect, indicating the location of all retro openings and the required design pressures for each opening.

NOTE: Generic charts, graphs alone, etc. are not acceptable for buildings above 30 feet.

ORIGINAL DATE:	September 12, 2012
<b>RE-ISSUED</b> :	October 12, 2017
EFFECTIVE DATE:	January 1, 2018

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### **Broward County Fenestration Voluntary Wind Load Chart\***

### Per ASCE 7-10 Method 1, Part 1 and FBC (2017) for Retrofiting in Accordance with Formal Interpretation #5

### For Detached One-and Two family dwellings and Multiple Single-Family Dwellings (Townhouses) with Mean Roof Height ≤ 30 feet

Wind 170 mph (3-second gust) / Exposure C\*\* / Kd = 0.85 / Kzt = 1.0 / Pressures are in PSF / Not for use in Coastal (Exposure 'D' areas)

\* Using Allowable Stress Design methodology (P = 0.6w) / \*\* Exposure shall be determined according to ASCE 7-10 Section 26.7.3 (Exposure Categories)

Effective	Location:	Mean Roof Height of 1				15 feet Mean Roof Height of 20 feet							Mean Roof Height of 25 feet				et	Mean Roof Height of 30 feet							
Wind				Zo	ne			Zone					Zone					Zone							
Area	Gable or Hip Roof		1	2	2		3		1		2		3		1		2		3		1		2		3
(ft <sup>2</sup> )	ROOI	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
10	Gable/Hip	16.0	-37.8	16.0	-63.4	16.0	-95.4	16.3	-40.2	16.3	-67.4	16.3	-101.4	17.1	-42.1	17.1	-70.6	17.1	-106.3	17.8	-43.7	17.8	-73.4		-110.4
20	Roof	16.0	-36.8	16.0	-56.7	16.0	-79.1	16.0	-39.1	16.0	-60.2	16.0	-84.0	16.0	-41.0	16.0	-63.1	16.0	-88.0	16.7	-42.6	16.7	-65.6	16.7	-91.5
50	θ ≤ 7°	16.0	-35.6	16.0	-47.7	16.0	-57.4	16.0	-37.8	16.0	-50.7	16.0	-61.0	16.0	-39.6	16.0	-53.2	16.0	-63.9	16.0	-41.1	16.0	-55.2	16.0	-66.4
100	(0 to 1.5:12)	16.0	-34.6	16.0	-41.0	16.0	-41.0	16.0	-36.8	16.0	-43.6	16.0	-43.6	16.0	-38.5	16.0	-45.7	16.0	-45.7	16.0	-40.0	16.0	-47.4	16.0	-47.4
10	Gable/Hip	21.8	-34.6	21.8	-60.2	21.8	-89.0	23.1	-36.8	23.1	-64.0	23.1	-94.6	24.3	-38.5	24.3	-67.1	24.3	-99.2	25.2	-40.0	25.2	-69.7		·103.0
20	Roof***	19.9	-33.6	19.9	-55.4	19.9	-83.3	21.1	-35.7	21.1	-58.9	21.1	-88.5	22.1	-37.4	22.1	-61.7	22.1	-92.7	23.0	-38.9	23.0	-64.1	23.0	-96.3
50	7° < θ ≤ 27°	17.3	-32.4	17.3	-49.0	17.3	-75.6	18.4	-34.4	18.4	-52.1	18.4	-80.3	19.3	-36.0	19.3	-54.6	19.3	-84.2	20.0	-37.4	20.0	-56.7	20.0	-87.5
100	(1.5 to6:12)	16.0	-31.4	16.0	-44.2	16.0	-69.8	16.3	-33.3	16.3	-47.0	16.3	-74.2	17.1	-35.0	17.1	-49.2	17.1	-77.8	17.8	-36.3	17.8	-51.1	17.8	-80.8
10	Gable Roof	34.6	-37.8	34.6	-44.2	34.6	-44.2	36.8	-40.2	36.8	-47.0	36.8	-47.0	38.5	-42.1	38.5	-49.2	38.5	-49.2	40.0	-43.7	40.0	-51.1	40.0	-51.1
20	27° < θ≤ 45°	33.6	-35.9	33.6	-42.3	33.6	-42.3	35.7	-38.1	35.7	-44.9	35.7	-44.9	37.4	-39.9	37.4	-47.1	37.4	-47.1	38.9	-41.5	38.9	-48.9	38.9	-48.9
50	(6 to12:12)	32.4	-33.3	32.4	-39.7	32.4	-39.7	34.4	-35.4	34.4	-42.2	34.4	-42.2	36.0	-37.1	36.0	-44.2	36.0	-44.2	37.4	-38.6	37.4	-46.0	37.4	-46.0
100	(0 1012.12)	31.4	-31.4	31.4	-37.8	31.4	-37.8	33.3	-33.3	33.3	-40.2	33.3	-40.2	35.0	-35.0	35.0	-42.1	35.0	-42.1	36.3	-36.3	36.3	-43.7	36.3	-43.7
			-		-		$e > 7$ degrees (1.5:12) and $\leq 25$ degrees (5.5:12), Zone 3																		
Effective			Mean F	loof He	eight of	15 feet	t	Mean Roof Height of 20 feet				Mean Roof Height of 25 feet				Mean Roof Height of 30 feet				t					
Wind	Location				ne			Zone					Zone				Zone								
Area	Location		4	!	5				4		5				4		5				4		5		
(ft <sup>2</sup> )		+	-	+	-			+	-	+	-			+	-	+	-			+	-	+	-		
10		37.8	-41.0	37.8	-50.6			40.2	-43.6	40.2	-53.8			42.1	-45.7	42.1	-56.4			43.7	-47.4	43.7	-58.6		
20			-39.3	36.1	-47.2			38.3	-41.7	38.3	-50.1			40.2	-43.8	40.2	-52.6			41.8	-45.5	41.8	-54.6		
50	Wall	33.8	-37.0	33.8	-42.7			36.0	-39.4	36.0	-45.4			37.7	-41.3	37.7	-47.5			39.2	-42.9	39.2	-49.4		
100		32.1	-35.3	32.1	-39.3			34.1	-37.5	34.1	-41.7			35.8	-39.4	35.8	-43.8			37.2	-40.9	37.2	-45.5		
500		28.2	-31.4	28.2	-31.4			29.9	-33.3	29.9	-33.3			31.4	-35.0	31.4	-35.0			32.6	-36.3	32.6	-36.3		
	Garage Doo	or Wir	nd Loa	ds		*	a≁	→ a¦a	*							. >	a+			1/2					
for a Bu	uilding with 30	)-foot N	vlean Ro	of Heig	ght	a F	31.2	1_3	_2	3						a	3		1/	3 /	K				
	Ехр	osure C	2			T	1									*	1	2.1.		-					
Tables	s 1609.7(1) & (	2), and	d Sectio	n 1609.	.3.1		1				-				1			$\checkmark$	11		-	/		_	1
Effective	Wind Area	Roof	Angle	Wind	Load	2	2 1	2	1	2	5	4		5	h			2	1	-	5		4	10	>   h
Width	Height	noon	Angre	+	-						Li				1			$\wedge$	1				+	:5	_
8	8	0 -	10	35.2	-39.8		1			)	∙a≁	and the second	*	a *			/		1.		* a +			* a	- 2 1
10	10		rees	34.1	-38.2	E	-+	1-1		_	(	Gable	Roof				/		)			Hip	Roof		1022
14	14	acg		32.3	-36.1	or Effe	ective W	/ind Are	eas betw	een th	ose give	n, valu	es may	be inte	rpolated	l. Othe	rwise us	e the v	alue ass	ociated	d with th	ne lowe	er Effect	ive Win	d Area.
9	7	>	10	38.4	-43.4	End Zo	ne (a) s	hall be	the sm	aller of	f 10% of	Least	Hor. Dis	st. or 4	0% of N	lean R	oof Heig	ght ('h')	), but no	ot less	than 4%	6 of Lea	ast Hor	Dist. o	r 3 ft.
16	7	deg	rees	36.8	-41.0		Ident	tify the	zone p	er the f	figure o	r infor	mation	by oth	ers. Any	quest	ionable	zone is	s to be c	onside	ered the	e more	critical	zone.	
Design is ba	ased on the 3-se	cond gu	st (wind	velocity	) for Risk	Catego	ry II (ger	neral res	idential	& comm	nercial co	nstruct	ion) per	FBC 162	20.2 Brow	vard. Th	ese table	es not fo	or use wit	h essen	itial facil	ities or a	assembly	, occupa	ncies.
Design is based on the 3-second gust (wind velocity) for Risk Category II (general residential & commercial construction) per FBC 1620.2 Broward. These tables not for use with essential facilities or assembly occupancies.																									



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Board Attorney Charles M. Kramer, Esq.

**Board Administrative Director** James DiPietro

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#6)

DATE:	October 12, 2017	
TO:	All Building Officials	$\sim \circ$
FROM:	James DiPietro, Administrative Director	former all
SUBJECT:	Solar Assisted Air Conditioning Systems.	

At its regular meeting of October 12, 2017, the Board of Rules and Appeals approved an interpretation of the following  $6^{th}$  Edition (2017) Florida Building Codes:

- 1. FBC, Mechanical Section 301.7 Listed and Labeled,
- 2. FBC, Residential Section M1302.1 Listed and Labeled,
- 3. FBC, Energy Conservation, Sections C403.2.3 and table R405.5.2.(1) HVAC equipment performance requirements.
- 4. FBC, 6th Edition (2017) FBC Broward County Administrative Provisions, Section 104.32.

Alternative materials, design and methods of construction and equipment. The Board concurred with the Building Code Advisory Board of Palm Beach County Tex

The Board concurred with the Building Code Advisory Board of Palm Beach County Technical Advisory (attached) issued on 12/13/11.

### **Formal Interpretation:**

The above sections are applicable to "solar assisted air conditioning systems" (a conventional air conditioning system with a solar heat collector placed between the compressor and the condensing coils) and such systems must obtain certification or successfully pass testing by State of Florida or a nationally recognized testing or certification agency prior to permitting.

EFFECTIVE DATE: RE-ISSUED: EFFECTIVE DATE: September 14, 2012 October 12, 2017 January 1, 2018

### \*\*\*\*PLEASE POST AT YOUR PERMIT COUNTER\*\*\*\*

Page 1 of 8 F.I #6

# **TECHNICAL ADVISORY**

Building Code Advisory Board of Palm Beach County

## Issued on 12-13-11 by Building Code Advisory Board

Subject: Solar-Assisted Air Conditioning System

This technical advisory is established as a "Public Awareness Notice" concerning a "Solar-Assisted A/C System" that modifies a factory matched air conditioning equipment system and that has been advertised recently in Palm Beach County. The creator of this hybrid system is promoting it, using several unsubstantiated claims regarding AHRI Certification, UL Listing, and dramatically improved SEER efficiency ratings.

This system <u>should not be confused</u> with other tested and certified air conditioning systems that incorporate solar photovoltaic panels into the electrical portion of their system. Unlike those designs, the "Solar-Assisted" portion of this system involves re-routing the <u>refrigerant line</u> up to the roof, and through a solar collector which is intended to "super heat" the gas prior to routing the line back to the condenser coil. There are many technical concerns with this design theory that prompted months of research by BCAB staff, the details of which are beyond the scope of this advisory.

However, there is specific information pertinent to the claims involving AHRI Certification, UL Listing, limitations on the pressures and approvals of solar panels, and dramatic increases in SEER efficiency that are worth noting:

- 1) Air Conditioning, Heating, and Refrigeration Institute communications (attached BCAB letter available on request)
- 2) Florida Solar Energy Center communications (attached)
- 3) Manufacturers the original equipment manufacturers of the Air Condensing Units that were contacted by BCAB staff, stated that their warranties and the UL Listing of their equipment would be voided by this type of field alteration.

It is the duty and the responsibility of the building official to ensure that products are properly installed in accordance with the manufacturer's instructions, certifications, and their listings. Installation of a system, that is not in compliance with listing and installation standards can lead to problems and invalidation of the warranty for the customer. When alternate materials, technologies, or designs are being proposed, it is incumbent on the applicant to provide enough information to substantiate the proposed alternative will comply with the code. The building official can request testing or other type of documentation when insufficient evidence is submitted at time of permitting. This firm has not demonstrated their claims with thorough and reliable science, engineering, testing, or demonstrated field applications. Due to the several above cited issues, and the extraordinary time spent by BCAB staff in the analysis of submitted materials that failed to substantiate the code-compliance of the hybrid system; the recommendation of the Board is that this system must obtain certification or successfully pass testing by a State of Florida or nationally recognized testing or certification agency, prior to permitting.

For Building Code Advisory Board

omasik Jacok

The Building Code Advisory Board of Palm Beach County was created by a Special Act of the Florida Legislature, at the request of the building code enforcement and construction industries. The purpose of the Board is to advise the Board of County Commissioners and local governments concerning the adoption of building codes and their enforcement throughout the County. The Act also granted Palm Beach County special powers concerning building codes, in the interest of the public's health, safety and general welfare.

comfortable at a higher temperature... in addition your air conditioning unit doesn't run as long and cycles less.

## Tested and certified... Energy Star, EcoLogic approved, AHRI & UL certified!

A S.E.E.R. (Sensonal Energy Efficiency Rating) is the rating and performance standards that have been developed by the U.S. government and equipment manufacturor's to produce an energy consumption rating that is easy to understand by consumers. It has a universal formula and conditioning that can be applied to all units and compensates for varying weather conditions.

ENERGY STAR is a government-backed program helping businesses and individuals protect the environment through *superior* energy efficiency.

AHRI administers the heating, ventilation, air conditioning and commercial refrigeration (HVACR) industry's performance certification programs for heating and cooling equipment and components. Manufacturers who have had their product performance claims tested and certified by AHRI can apply one of the association's families of certification marks.

Sedna Aire USA products are environment friendly, ecologic and made in the USAI

Solar energy is not only clean energy but it is free energy!

ecoLogic<sup>TM</sup> is your sign of an environmentally friendly, high-efficiency heating and cooling product.

Only the most energy-efficient, most environmentally responsible units receive the ecoLogic seal of quality.

How does a heating or cooling product earn the ecoLogic name? To qualify, products must meet the following criteria:

Rated as an <u>Energy Star®</u> product for officiency. Use non-ozone-depleting refrigerant, such as R-410A, in cooling products. Include multi-stage, variable-speed compressors for optimal indoor comfort and efficiency. Feature "smart" control boards or diagnostic controls for total indoor air quality. Incorporate noise-reducing features.

Green-Energy-Products.com 305.251.9630 - 800.639.8796 infor@green-energy-products.com



# 2

From: Ann.Stanton@dca.state.fl.us [mailto:Ann.Stanton@dca.state.fl.us] Sent: Friday, September 16, 2011 11:34 AM To: Bob Boyer Subject: Fw: Solar Cool Permit Issues

----- Forwarded by Ann Stanton/DCA/FLEOC on 09/16/2011 11:33 AM -----

Philip Fairey <pfairey@fsec.ucf.edu>

To Ann.Stanton@dca.state.fl.us co Robin Vietra <robin@fsec.ucf.edu> Subject Re: Fw: Solar Cool Permit Issues

Ann,

09/16/2011 10:49 AM

We have seen this proposed system before; it is described here:

http://www.sednaaireusa.com/How%20it%20works.htm. It does not work. In fact, it will decrease the efficiency of the air conditioner on which it is installed. In fact, one could make a cogent argument that if this concept were incorporated into a minimum efficiency air conditioner it would no longer meet the minimum federal standard for the manufacture and sale of air conditioner systems. The issue is that we want to extract heat from the loop between the compressor and condenser, not add heat to it- they have it exactly backwardl

### Philip

### On 9/16/2011 10:29 AM, Ann.Stanton@dca.state.fl.uswrote:

Philip: Does one of your people want to respond on this issue? I'd appreciate it. Ann

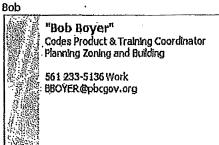
----- Forwarded by Ann Slanton/DCA/FLEOC on 09/16/2011 10:28 AM -----

Bob Boyer <bboyer@pbcgov.org></bboyer@pbcgov.org>	
	To <u>"Ann.Stanton@dca.state.fl.us"<ann.stanton@dca.state.fl.us></ann.stanton@dca.state.fl.us></u>
09/16/2011 10:16 AM	co Rebecca Caldwell <u><rcaldwel@pbcgov.org></rcaldwel@pbcgov.org></u> , Richard Gathright < <u><rgathrig@pbcgov.org></rgathrig@pbcgov.org></u> , Michael Fox <u><mfox@pbcgov.org></mfox@pbcgov.org></u>
	Subject FW: Solar Cool Permit issues

Good Morning Ann,

I am forwarding ongoing correspondence that we are having with a solar contractor on the proposed field modification of a AC system. The contractor is proposing to install a thermal solar collector in the hot gas loop between the compressor and the condenser. We would be very interested in hearing your opinion and thoughts on this proposed installation. We have sent a letter to AHRI which I have attached also requesting input on the proposed installation. Thank you for your time in considering and responding to our questions.

Regards,





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**Board Administrative Director** James DiPietro

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# FBC 6<sup>th</sup> Edition (2017) FORMAL INTERPRETATION (#7)

DATE: October 3, 2017

TO: All Building Officials

FROM: James DiPietro

De.

Administrative Director

SUBJECT: Installation of 100% Wireless Network Low Voltage

Alarm Systems.

At its regular meeting of May 14, 2015, the Board of Rules and Appeals approved an interpretation regarding 100% Wireless Network Low Voltage Alarm Systems, as follows.

INSTALLATION OF 100% WIRELESS NETWORK LOW VOLTAGE ALARM SYSTEMS, AND ANCILLARY COMPONENTS OR EQUIPMENT ATTACHED TO SUCH A SYSTEM, INCLUDING, BUT NOT LIMITED TO HOME–AUTOMATION EQUIPMENT, THERMOSTATS, AND VIDEO CAMERAS DOES NOT REQUIRE A PERMIT. THIS INTERPRETATION DOES NOT APPLY TO THE INSTALLATION OR REPLACEMENT OF A FIRE ALARM IF A PLAN REVIEW IS REQUIRED.

EFFECTIVE DATE: RE-ISSUED: RE-ISSUED DATE: EFFECTIVE DATE: January 10, 2014 May 14, 2015 October 12, 2017 January 1, 2018

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# **BROWARD COUNTY** BOARD OF RULES AND APPEALS

## FBC 6<sup>th</sup> Edition (2017) FORMAL INTERPRETATION (#8)

October 12th, 2017 DATE:

**All Building Officials** TO:

**James DiPietro** 

FROM:

DP. **Administrative Director** 

**Retrofits required pursuant to Florida Building Code SUBJECT: Existing Building Section 706.8** 

Anchors not less than 1/8" by 1" steel strap nailed with 3- 16D nails installed in accordance with previous additions of the South Florida Building Code shall be deemed to comply with the minimum uplift capacity of 500 pounds as specified in the Florida Building Code Existing Building Manual Section 706.8 for roof to wall connections for site-built single-family residential structures.

ORIGINAL DATE: **RE-ISSUED**: EFFECTIVE DATE: May 9, 2014 October 12, 2017 January 1, 2018

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Page 1 of 1 F.I. #8



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**Board Attorney** Charles M. Kramer, Esq.

**Board Administrative Director** James DiPietro

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# BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#9)

**DATE:** October 12, 2017

TO: All Building Officials

FROM: James DiPietro

De.

Administrative Director

SUBJECT: Residential Clothes Washing Machines Drains.

At its regular meeting of October 12, 2017, the Board of Rules and Appeals approved an interpretation of the Florida Building Code 6th Edition (2017), Residential Section P2718.1

The interpretation is to clarify the use of a minimum 2-inch sanitary piping to drain clothes washing machines. The FBC, Residential Section P2718.1 is silent on the issue. The Board\_ with Building Officials Association of Florida Informal Interpretations 4939 and 6501.

### **Formal Interpretation:**

FBC Residential Section P2718.1: The automatic clothes washing machine fixture drain shall connect to a branch drain or drainage stack a minimum of 2 inches in diameter.

ORIGINAL DATE: RE-ISSUED: EFFECTIVE DATE: January 10, 2014 October 12, 2017 January 1, 2018

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#10)

DATE:	September 9, 2017
TO:	All Building Officials
FROM:	James DiPietro, Administrative Director
SUBJECT:	<b>Recessed Ceiling Air Handlers</b>



At its regular meeting of October 12, 2017, the Board of Rules and Appeals approved an interpretation of the following 6<sup>th</sup> Edition (2017) Florida Building Codes:

1. FBC, Energy Conservation, Sections C501.7 and 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:**

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 spaced.

### **Formal Interpretation:**

The replacement of existing Recessed Ceiling Air Handlers that will require the alteration of building walls; as determined by the Building Official or his or her representative, qualifies under the exception 4 to the FBC Energy Conservation 6th Edition section C501.7 and R501.7. As consequence this application needs not meet the minimum SEER required in Section C303.2.3 and Table R405.5.2(1) of said Code as long as the replacement is a "like for like" as stated in the above Exception.

EFFECTIVE DATE: RE-ISSUED: EFFECTIVE DATE: June 30, 2015 October 12, 2017 January 1, 2018

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### Page | of | F.I #10

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**Board Administrative Director** James DiPietro

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# **BROWARD COUNTY** BOARD OF RULES AND APPEALS

# FBC 6<sup>th</sup> Edition (2017) Energy **Conservation Code FORMAL INTERPRETATION (#11)**

DATE:

TO:

October 12, 2017 **All Building Officials** 

S

FROM:

James DiPiet Administrative Director

Windows Replacement

SUBJECT:

At its meeting of October 12, 2017, the Broward County Board of Rules and Appeals approved the following interpretation.

When windows are replaced they may be exempt from the Florida Building Code-Energy Conservation,  $6^{th}$  Edition (2017).

In the Florida Building Code-Energy Conservation,  $6^{th}$  Edition (2017), C101.4.2 and R101.4.8 state: "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."

Renovated Buildings is defined in C202 and R202 of the Florida Building Code-*Energy Conservation*, 6<sup>th</sup> Edition (2017) as: "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 exceeds30 percent of the assessed value of the structure."

Considering these sections, replacement of windows (including any other renovation that may be going on) in an existing building that does not exceed 30 percent of the assessed value of the structure must comply with the requirements of the Florida Building Code, Existing Building but they do not need to comply with the Florida Building Code, Energy Conservation.

**ISSUED**: **RE-ISSUED**: **EFFECTIVE DATE:**  July 9, 2015 October 12, 2017 January 1, 2018

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Board Administrative Director James DiPietro —ESTABLISHED 1971—

# BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u>

# FORMAL INTERPRETATION (#12)

DATE:	October 12, 2017	
TO:	All Building Officials	$1 \cap P$
FROM:	James DiPietro, Administrative Director	James Mar

SUBJECT:

**IECT:** Mechanical Equipment Wind Load Voluntary Design Pressure Chart

At its meeting of October 12, 2017, the Board approved an interpretation of the 6<sup>th</sup> Edition (2017) FBC Existing Building, 503.1 Alteration Level 1, FMC 301.15, and FBC Ch. 16. **Formal Interpretation:** 

To obtain the required design pressure for any mechanical equipment, at a specific site, an individual must use one of the following options and submit documentation as indicated.

a) A site-specific plan (signed and sealed) by a Florida Professional Engineer indicating the location of mechanical equipment and the required design pressures.

b) A site-specific plan (not sealed) or written description, indicating the location of mechanical equipment accompanied by a worst-case design pressure chart (signed and sealed) prepared by a Florida P.E.

c) A site-specific plan (not sealed) or written description, indicating the location of mechanical equipment and indicating the required design pressures based on the Broward County Mechanical Equipment Wind Load Voluntary Design Pressure Chart. (See attached chart).

All permit applications must be accompanied by evidence acceptable to the AHJ that the mechanical equipment and its installation complies with FMC 301.15 and the design pressures as determined by one of the above methods.

Mechanical equipment located at height more than 100 feet shall comply with FMC 301.15, have a site-specific design (signed and sealed) by a Florida Professional Engineer, indicating the location of mechanical equipment, the required design pressures and the installation method.

EFFECTIVE DATE: RE-ISSUED: EFFECTIVE DATE: October 9, 2015 October 12, 2017 January 1, 2018

### \*\*\*\*PLEASE POST AT YOUR PERMIT COUNTER\*\*\*\* Page | of 2 F.I #13

### Broward County - Wind Load Design Pressures For Mechanical Equipment (HVHZ only)\*

\* Using Allowable Stress Design methodology (P = 0.6w)

#### Per ASCE 7-10 Chapter 29, Design Loads for Other Structures, and Florida Building Code 6th Edition (2017)

Wind 170 mph (3-second gust) / Exposure C-D\*\* / Kzt = 1.0

 $K_d = 0.90$  for square shaped units /  $K_d = 0.95$  for round, hexagonal & octagonal shaped units

\*\* Exposure shall be determined according to ASCE 7-10 Section 26.7.3 (Exposure Categories)

#### **GROUND-MOUNTED APPLICATIONS**

		Exposure 'C	C' (Non-Coa	stal)		Exposure 'D' (Coastal)					
Mounting	Unit	Size	Wind Load Design Pressures			Mounting	Unit	Size	Wi	nd Load Design F	Pressures
Height	Width/ Diameter	Height	Square	Hexagonal, Octagonal	Round	Height	Width/ Diameter	Height	Square	Hexagonal, Octagonal	Round
GROUND	24 – 60 IN	24 – 60 IN	39 PSF	32 PSF	16 PSF	GROUND	24 – 60 IN	24 – 60 IN	47 PSF	39 PSF	20 PSF

#### **ROOFTOP-MOUNTED APPLICATIONS**

Exposure 'C' (Non-Coastal)										
Mounting	Unit	Size	Wind Load Design Pressures							
Height	Width/	Hoight		Square	Round, Hex/					
Above Grade	Diameter	Height		Square	Octagonal					
15 FT	< 60 IN	< 60 IN	LATERAL	112 PSF	118 PSF					
1311	< 00 IN	< 00 IN	UPLIFT	55 PSF	58 PSF					
20 FT	< 60 IN	< 60 IN	LATERAL	118 PSF	124 PSF					
2011	< 00 IN	< 00 IN	UPLIFT	57 PSF	60 PSF					
30 FT	< 60 IN	< 60 IN	LATERAL	126 PSF	133 PSF					
3011	< 00 IN	< 00 IN	UPLIFT	61 PSF	65 PSF					
40 FT	< 60 IN	< 60 IN	LATERAL	133 PSF	140 PSF					
4011		< 00 IN	UPLIFT	65 PSF	68 PSF					
50 FT	< 60 IN	< 60 IN	LATERAL	139 PSF	146 PSF					
5011	< 00 IN	< 00 IN	UPLIFT	67 PSF	71 PSF					
60 FT	< 60 IN	< 60 IN	LATERAL	144 PSF	152 PSF					
0011	< 00 IN	< 00 IN	UPLIFT	70 PSF	74 PSF					
70 FT	< 60 IN	< 60 IN	LATERAL	148 PSF	156 PSF					
7011	< 00 IN	< 00 IN	UPLIFT	72 PSF	76 PSF					
80 FT	< 60 IN	< 60 IN	LATERAL	152 PSF	160 PSF					
8011	< 00 IN	< 00 IN	UPLIFT	74 PSF	78 PSF					
90 FT	< 60 IN	< 60 IN	LATERAL	156 PSF	164 PSF					
5011	\$ 00 IN	\$ 00 IN	UPLIFT	76 PSF	80 PSF					
100 FT	< 60 IN	< 60 IN	LATERAL	159 PSF	168 PSF					
10011	\$ 00 IN	\$ 00 IN	UPLIFT	77 PSF	81 PSF					

Exposure 'D' (Coastal)					
Mounting	Unit Size		Wi	Wind Load Design Pressures	
Height Above Grade	Width/ Diameter	Height		Square	Round, Hex/ Octagonal
15 FT	< 60 IN	< 60 IN	LATERAL UPLIFT	135 PSF 65 PSF	142 PSF 69 PSF
20 FT	< 60 IN	< 60 IN	LATERAL	140 PSF 68 PSF	148 PSF 72 PSF
30 FT	< 60 IN	< 60 IN	LATERAL	148 PSF 72 PSF	157 PSF 76 PSF
40 FT	< 60 IN	< 60 IN	LATERAL	155 PSF 75 PSF	164 PSF 79 PSF
50 FT	< 60 IN	< 60 IN	LATERAL	160 PSF 78 PSF	169 PSF 82 PSF
60 FT	< 60 IN	< 60 IN	LATERAL UPLIFT	165 PSF 80 PSF	174 PSF 85 PSF
70 FT	< 60 IN	< 60 IN	LATERAL UPLIFT	169 PSF 82 PSF	179 PSF 87 PSF
80 FT	< 60 IN	< 60 IN	LATERAL UPLIFT	173 PSF 84 PSF	183 PSF 89 PSF
90 FT	< 60 IN	< 60 IN	LATERAL UPLIFT	176 PSF 86 PSF	186 PSF 90 PSF
100 FT	< 60 IN	< 60 IN	LATERAL UPLIFT	179 PSF 87 PSF	189 PSF 92 PSF

#### GENERAL NOTES AND INSTRUCTIONS FOR TABLE USE:

1. Design is based on the Florida Building Code (FBC) 6th Edition (2017) using ASCE 7-10 "other structures - tanks" calculation of a 3-second gust (wind velocity) per ASCE section 29.4, 29.5, or FBC section 1620.6 for a category II (general residential & commercial construction) installation. These tables not for use with essential facilities or assembly occupancies. Topographic factor kzt=1.0 for flat terrain use only. Tables use 'ASD' design method.

2. No certification is offered for the integrity of the host structure.

3. Tables are intended to depict the 'worst case' design pressure. 'Worst case' is defined as the critical condition of any unknown variable as described herein. Use of critical conditions required for use with these tables. Deviations require site specific evaluation.

4. Use of this drawing assumes the following criteria:

· Permanent attachment to the existing structure (attachment method and integrity of host structure certified by others)

 $\cdot\,$  The unit is not located in a region susceptible to channeling effects or buffeting in the wake of upwind obstructions.

5. It is the installer's responsibility to ensure that the mounting method meets or exceeds the requirements of the aforementioned building code which shall be provided per separate certification.

 Always round down unit width/depth dimensions and/or round up unit height dimension to the worst-case table value or to a conservative assumption.
Use any combination of unit sizes, provided base attachment certification is approved for that configuration. When considering multiple sizes, utilize minimum unit depth/width along with maximum unit height to determine required design pressure from these tables.

8. Read off required pressures (for ground-mounted applications, pressures act laterally upon vertical windward faces in any direction; for rooftop applications, pressures act as specified in table).

9. For use only as required by the local municipality in accordance with code.

BORA Formal Interpretation #13 Page 2 of 2



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**Board Attorney** Charles M. Kramer, Esq.

**Board Administrative Director** James DiPietro

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# FBC 6<sup>th</sup> Edition (2017) **FORMAL INTERPRETATION (#13)**

TO:

**All Building Officials** 

FROM:

# James DiPietro, Administrative Director

100

**SUBJECT: Ceiling Grid Support for Light Fixtures** 

Per NEC 410.36, when lighting fixtures are installed in acoustical ceiling grids, they must be securely fastened to the grid. The FBC 5<sup>th</sup> Edition Section 808.1 requires ceiling grids to be installed as per ASTM C635 and ASTM C636. ASTM C635 is the standard for manufacturer's grid design. ASTM C635 Section 4 explains grid strength types such as light, medium and heavy duty and it also describes the allowable load to be applied to each grid type. ASTM C635 4.3 states the manufacturer is responsible for the design of the specified system. ASTM C636 explains the standard installation requirements. ASTM C636 Section 2.7 specifies the installation of lay in light fixtures in a grid ceiling. Depending on the load and the type of grid ceiling that is being used, there are three ways to support a lay in light fixture:

- 1) By fastening it to the grid per fixture manufacturer's instruction, NEC 410.36(B) and ASTM C636 2.7.1 where installing a light fixture does not compromise the design or strength of the ceiling.
- 2) By adding additional hanger wires on the grid at the four corners of the grid within 6" of the fixtures where it is determined that more support is needed to support additional loads per ASTM C636 2.7.2.
- 3) Per ASTM C2636 2.7.2, by independently supporting the fixtures from the grid where the weight of the fixture is determined to be too great for the selected grid to meet the deflection requirement.

### Formal Interpretation.

A support detail shall be provided on the Ceiling Grid Plan Pages indicating the method of support of lay-in light fixtures, ceiling fans, ventilator fans, and other ceiling mounted equipment or fixtures based on the lay-in ceiling system manufacturer's load capabilities for the selected grid used. The detail shall be provided by the design Professional or the manufacturer.

> **EFFECTIVE DATE: MARCH 10th, 2016 RE-ISSUED:** NOVEMBER 9th, 2017 JANUARY 1<sup>ST</sup>, 2018 **EFFECTIVE DATE:**

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Board Administrative Director James DiPietro —ESTABLISHED 1971BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u> <u>FORMAL INTERPRETATION (#14)</u>

DATE:	October 12, 2017	
TO:	All Building Officials.	$\cdot$
FROM:	James DiPietro, Administrative Director	James - Ho
	Intermediation of (th Edition (2017) Elevide	Duilding Code

SUBJECT:

Interpretation of 6<sup>th</sup> Edition (2017) Florida Building Code Mechanical: 301.15; Building: 453.25.4.3.1, 453.25.4.3.2, 1609.1.1 Ex. 8; Fuel Gas: 301.10.

At its regular meeting of October 12, 2017, the Board of Rules and Appeals approved an interpretation of the following Exception to above sections:

**Wind resistance.** Mechanical equipment, appliances and supports that are exposed to wind shall be designed and installed to resist the wind pressures determined in accordance with the *Florida Building Code, Building*.

**Exception:** Exposed mechanical equipment or appliances fastened to a roof or installed in the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the winds resistance requirements of the 2007 Florida Building Code, as amended. Further supportoe enclosure of mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

### **Formal interpretation**

1. Mechanical equipment or appliances themselves, are not required to demonstrate compliance with the wind load requirements of the Florida Building Code and no other shielding, sheltering, or reinforcement of the equipment of appliance is required.

2. Notwithstanding Item 1 above, the mechanical equipment or appliances shall be adequately anchored to the rated stands, platforms, curbs, slabs, walls, or other means of support to resist the wind loads of the 2007 Florida Building Code.

EFFECTIVE DATE:September 9, 2016RE-ISSUED:October 12, 2017EFFECTIVE DATE:January 1, 2018

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**Board Administrative Director** James DiPietro

# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#15)

DATE:	October 12, 2017	
то:	All Building Officials	
FROM:	James DiPietro, Administrative Director	
SUBJECT:	Permit requirements for Florida Building Code	
	Plumbing Appendix F	

At its regular meeting of October 12, 2017, the Board of Rules and Appeals approved an interpretation of the Florida Building Code 6<sup>th</sup> Edition (2017), Plumbing Appendix F Part 1 B.1 Permits required and B.2 Exceptions.

The interpretation is to clarify that a permit is not required for the installation of irrigation for golf courses.

# **Formal Interpretation:**

FBC, Plumbing Appendix F Part 1: A permit is not required for the installation of irrigation systems for golf courses Per Part 1 A.3 Scope.

Original Date: Re-Issued Effective Date: May 12, 2017 October 12, 2017 January 1, 2018

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# BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u>

# FORMAL INTERPRETATION (#16)

DATE:	October 12, 2017	
TO:	All Building Officials	$1 \cap \mathcal{P}$
FROM:	James DiPietro, Administrative Director	form the
SUBJECT:	Smoke Control System testing in existing b undergoing Level 2 alterations.	uildings

At its meeting of October 12, 2017, the Board approved an interpretation of the  $6^{\text{th}}$  Edition (2017) FBC.

Formal Interpretation of the following sections: FBC Existing Buildings SECTION 504 ALTERATION—LEVEL 2; FBC Existing Buildings 801.2 Alteration Level 1 compliance; FBC Existing Buildings 701.2 Conformance; FMC 513.3 Special inspection and test requirements; FMC 513.18 Acceptance testing; FMC 513.19 System acceptance; FBC 909.3 Special inspection and test requirements.

### **Formal Interpretation:**

In existing buildings undergoing Level 2 alterations, including tenant improvements, the Engineer of Record shall state if testing of the existing Smoke Control System is required and the type of test to be performed.

EFFECTIVE DATE: RE-ISSUED: EFFECTIVE DATE: May 12, 2017 October 12, 2017 January 1, 2018

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\$\2017 - 6th Edition\Revised 6th Edition\FI-16 Smoke Control System Testing in Existing Buildings

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# BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u>

FORMAL INTERPRETATION (#17)

DATE:	October 12, 2017	
TO:	All Building Officials	$\cdot \cap \rho$
FROM:	James DiPietro, Administrative Director	Jun Da
SUBJECT:	Acceptable testing methods for Smoke Con	trol Systems.

At its meeting of October 12, 2017, the Board approved an interpretation of the  $6^{\text{th}}$  Edition (2017) FBC.

Formal Interpretation of the following sections: FMC 513.3 Special inspection and test requirements; FMC 513.18 Acceptance testing; FMC 513.19 System acceptance; FBC 909.3 Special inspection and test requirements.

### **Formal Interpretation:**

As part of the procedures and methods to be used in testing a Smoke Control System, the Engineer of Record shall be able to use any measurable and certifiable method of generating smoke, including smoke generating machines.

EFFECTIVE DATE:MayRE-ISSUED:OctoEFFECTIVE DATE:Janua

May 12, 2017 October 12, 2017 January 1, 2018

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# BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#18)

DATE:	October 12, 2017
TO:	All Building Officials
FROM:	James DiPietro, Administrative Director

for the

SUBJECT: Duct sizing calculations.

At its meeting of October 12, 2017, the Board approved an interpretation of the  $6^{\text{th}}$  Edition (2017) FBC.

Formal Interpretation of the following sections: FMC 603.2 Duct sizing. FBC Residential M1601.1 Duct design.

### **Formal Interpretation**

Duct sizing calculations are not necessary to be submitted to the Authority Having Jurisdiction as part of the permitting process, if the design document showing duct sizes, is signed and sealed by the Engineer of Record or signed by the Mechanical or Air Condition Contractor, as allowed by Florida Statues 471 and 489.

EFFECTIVE DATE: RE-ISSUED: EFFECTIVE DATE: May 12, 2017 October 12, 2017 January 1, 2018

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# BROWARD COUNTY BOARD OF RULES AND APPEALS <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#19)

DATE:	October 12, 2017	
TO:	All Building Officials	
FROM:	James DiPietro, Administrative Director	
SUBJECT:	Acceptable documents for the attachment of mechanical equipment during replacement.	

At its meeting of October 12, 2017, the Board approved an interpretation of the  $6^{th}$  Edition FBC.

## Formal Interpretation of the following sections:

FBC 6th Edition (2017), Building Section 105.3.1.5-3 of Broward County Administrative Provisions.

### **Formal Interpretation.**

For the replacement of an existing mechanical system, in which the work does not require altering a structural part of the building, or for work on a residential one-family, two-family, three-family or four-family structure, the Authority Having Jurisdiction shall accept documents from the following sources:

- 1. Original signed and sealed engineered drawings.
- 2. Miami Dade Notice of Acceptance, complete sets of copies.
- 3. Florida Product Approval, complete sets of copies.
- 4. Equipment manufacturer's anchoring details, showing compliance with the wind speeds as provided by FBC 1620 for Broward County.

For commercial replacements, the Authority Having Jurisdiction shall accept documents from the following sources:

- 1. Original signed and sealed engineered drawings.
- 2. Miami Dade Notice of Acceptance, complete sets of copies.
- 3. Florida Product Approval, complete sets of copies.

EFFECTIVE DATE:May 12, 2017RE-ISSUED:October 12, 2017EFFECTIVE DATE:January 1, 2018

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# **BROWARD COUNTY BOARD OF RULES AND APPEALS** FBC 6<sup>th</sup> Edition (2017) **FORMAL INTERPRETATION (#20)**

DATE:	October 12, 2017
то:	All Building Offici
FRAM	

FROM:

cials

Administrative Director

James DiPietro

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SUBJECT:

**Two-Way Radio Communication Enhanced Public Safety** Signal Booster Systems.

At its regular meeting of October 12, 2017, the Board of Rules and Appeals approved an interpretation of Chapter 1, Section 118, titled Two-Way Radio Communication Enhanced Public Safety Signal Booster Systems, as follows:

Plans shall be signed and sealed by a licensed professional engineer. The engineer of record shall be responsible for the system. The engineer of record shall specify the brand and the model number of the bi-directional amplifier (BDA), the antenna and the component parts.

It is recognized that presently there is no listing approval for BDA systems by a nationally recognized testing laboratory.

This Formal Interpretation shall remain in effect until six (6) months after the UL sets this listing approval

Adopted Date: October 12, 2017 Effective Date: October 13, 2017 Re-Adopted : January I, 2018

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G:\SHARED\Formal Interpretations\2017 - 6th Edition\FI-22 Two-Way Radio Communication Enhanced Public Safety Signal Booster Systems.docx

## AUGUST 28, 2017 JOINT AD HOC BI-DIRECTIONAL AMPLIFIER & ELECTRICAL COMMITTEE MEETING - MINUTES EXCERPT

Rice: Broward County Board of Rules and Appeals was contacted by the County to see what we could do as far as looking at existing codes, what we would have to do to modify existing codes, what would it take so this doesn't happen again. Basically we started the BOA Committee and came up with a number of recommendations. Basically what we found was that the codes themselves were adequate. They gave us what we needed. What was not adequate was the follow-up and how to enforce it. So we made some changes to the administrative process for Broward County and we have been going forward since then. The BOA Committee was disbanded. I think we had one meeting a few months later just to discuss any other issues that came up. It has been quite a while since we've had a meeting. The reason for this meeting is basically we are going through the installation process and we have some obstacles to overcome.

Rice: You mentioned that the code, we had changed it a few months ago, as far as the requirements for the plans. My question is to solve this problem, we require the plans to be signed and sealed by an electrical engineer with experience. He is supposed to define what BOA could be used. Could we write a formal interpretation to clarify this to get it out to all the building inspectors, the chiefs, basically defining this? If the engineer of record specifies the brand and the model number for that BOA, he is liable for that, he is responsible for that. There is no UL listing for it. I'll throw this back to the inspectors. Mr. Gray (sp? 1:40:10:0) would you accept that as an alternative to going out for the third-party inspection?

Gray: Absolutely.

Rice: Sir from Miramar, would you accept it?

Inaudible

Rice: And from Fort Lauderdale, would you accept that?

Unidentified: Yes

**Rice: From Deerfield Beach?** 

Kropp: Yes I will. I can't specify pieces of equipment in these designs. For me to give somebody a list of what they can use if it is more than ...

Rice: The engineer that designed it.

Kropp: What I am seeing with a lot of these submittals for permits and I do the permit reviews on them. I see a lot of bogus emails being sent in. I know they are bogus because when I look at them, they are all on solid color. They don't show the gradation of signal strength. They don't show the blocking of the various internal components. That's an issue that needs to be addressed too.

Unidentified: Next meeting. Let's solve this one first.

Kropp: Even having engineers sign those plans with those bogus drawings in there does not provide a proper submittal. I bounce those.

Rice: I hate to rat on anybody, but I am a professional engineer and the thing that irks me more than anything else to see my competition put a piece of trash in, signed and sealed. You know

## AUGUST 28, 2017 JOINT AD HOC BI-DIRECTIONAL AMPLIFIER & ELECTRICAL COMMITTEE MEETING - MINUTES EXCERPT

what I think you should do. Send it to DPR (Department of Professional Regulation). That's the best thing you could do for the community. Mr. DiPietro, what about a formal interpretation? What is the process for doing that?

DiPietro: The first answer is the short answer, yes. Hopefully the longer answer will end up at yes. The short answer is you can interpret anything in the code. So we put it in a code section. The Committee could recommend an interpretation of that code section just as you described. Now, since we don't' have a written document ahead of us. In other words, sometimes the Committee will have a proposed interpretation and the Committee adopts that. I think obviously what we would do as we just disclosed, somebody could move what you've said that be written up as an interpretation. The staff and yourself would sign off on the draft. I'll send it to the attorney. In our report to the board, the board would vote on this in October, we'd simply disclose the truth. We had an hour and a half meeting. A lot of people spoke. At the end of it there was a general motion to put this into a formal interpretation which the Committee chair approved and we are presenting it tonight for review. Of course it is a public meeting and anybody can come and comment. That is probably the best option. There are alternatives . Another one is we do a draft and send it out to the joint Committee and go through a process of getting feedback. You have to be careful with that because under the Sunshine Law, one committee member cannot talk to another one. But, we could solicit comments and they all come into the staff, it's a little more unworkable, but you could do that. That is a second alternative. The third alternative is we can prepare what you said Mr. Chair and then put it on the agenda for another meeting a month from now and then this Committee could vote it. Any one of those would work. The Committee can delegate it to you and then we could run it by the attorney and put it on the agenda.

Rice: First of all what I'd like to do if I could get a motion.

Kropp: I make a motion that the Electrical and Ad Hoc Committee form a formal interpretation on allowing the BOA systems to be signed, sealed by a professional engineer and the engineer of record designing that system be responsible for the system as it is designed and installed.

Unidentified: Can you change that slightly?

Rice: The next question, ok, do you want to go the long process and have another meeting or authorize myself and staff, two members of staff, Mr. DiPietro, to write the report.

Kropp: That is the motion I thought I just made. Maybe I worded it wrong.

Melamed: Ok, I second that motion.

Unidentified: Before we vote on that, I'd like to hear from Mr. Castronovo because

Castronovo: No that's ok. I'm glad we are here.

Unidentified: Does that meet your essential request?

Castronovo: No listen, it is up to the individual AHJ (Authority Having Jurisdiction). I don't sign on permits. I'm getting a lot of questions from the vendors . I'm getting questions from board members and other people and I just take it all in because I am not out in the field. I am not the person who signs it. My goal is to make it not just clear but uniform. I don't want you going to Fort Lauderdale and he saying one thing and him going, that's not what I do. I have really no, I mean I can give my input. I can't vote on anything on this board. So, what's happening here is

## AUGUST 28, 2017 JOINT AD HOC BI-DIRECTIONAL AMPLIFIER & ELECTRICAL COMMITTEE MEETING - MINUTES EXCERPT

good.

Kropp: One fear as an inspector is, that we have, is we don't want to do something and then Ken come knocking on our door, saying what are you guys doing. The key point is there is a lot of inspectors here, we are all meeting.

Rice: That is the purpose of the formal interpretation.

Melamed: I just want to make sure that doesn't take away the responsibility of the electrical inspector to ensure that the unit's ? is properly connected (inaudible - multiple people speaking) it only has to do with the BDA... so that it doesn't have to be UL

Parks: Mr. Chairman, I believe the motion is already covered in code, what are you asking to interpret?

Rice: I want to have a formal interpretation sent out to all of the electrical chiefs.

Parks: That plans have to be drawn and engineer sealed?

Rice: That's already said but basically this refers specifically to BDAs. When he specifies the BOA, that's his approval on that BOA.

Unidentified: And that is part of the inspection process.

Rice: And the inspector would take that.

Unidentified: And we are really asking for it to be county-wide.

Rice: That is the purpose of the formal interpretation.

Travers: Just remind the subcommittees that are here today a year ago we had an issue with mechanical equipment and we formed two special subcommittees, one structural and one mechanical chaired by Dan Lavrich. We used the same process to come up with ? informed considering wind load calculations and fastening devices, we were able to resolve it at this level. It went through the interpretation level, distributed to all of the municipalities in Broward County and it made it clear that we could do things in a standard and uniform way throughout the county.

Parks: Ok, so we have a motion and it was seconded, Mr. Chairman.

Rice: Ok, any other discussion from board members?

Castronovo: We are just talking about BOAs. We are not talking about installation.

Rice: BOA only.

Unidentified: This eliminates the UL question.

Rice: Ok, all those in favor, raise your hand and say aye.

Rice: Ok, that is unanimous.



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### 2018 Voting Members

Chair Mr. Daniel Lavrich, P.E., Structural Engineer

### Vice-Chair

Mr. Kenneth B. Wynn, Representative Disabled Community

Mr. John Famularo, Roofing Contractor Mrs. Shalanda Giles Nelson, General Contractor Mr. Jeffrey Lucas, FM, CFI, CFEI, Fire Service Professional Mr. Daniel Rourke. Master Plumber Mr. Gregg D'Attile, Mechanical Contractor Mr. Stephen E. Bailey, P.E., Electrical Engineer Mr. Ron Burr, Swimming Pool Contractor Mr. John Sims, Master Electrician Mr. Dennis A. Ulmer, Consumer Advocate Mr. Abbas H. Zackria, CSI, Architect Robert A. Kamm, P.E., Mechanical Engineer

### 2018 Alternate Board Members

Mr. Jeff Falkanger, Architect Mr. Steven Feller, P.E., Mechanical Engineer Mr. Alberto Fernandez. General Contractor Mr. Robert Taylor, Fire Service Mr. Gary Elzweig, P.E., Structural Engineer Mr. David Rice, P.E., Electrical Engineer Mr. James Terry, Master Plumber Mr. David Tringo, Master Electrician Mr. William Flett, Roofing Contractor

**Board Attorney** Charles M. Kramer, Esq.

**Board Administrative Director** James DiPietro

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# BROWARD COUNTY BOARD OF RULES AND APPEALS

# <u>FBC 6<sup>th</sup> Edition (2017)</u> FORMAL INTERPRETATION (#21)

DATE: June 14, 2018.

TO: All Building Officials

Jan Q.

FROM: James DiPietro, Administrative Director

SUBJECT: Alteration of existing smoke evacuation or smoke control systems.

At its meeting of June 14, 2018, the Board approved an interpretation of the  $6^{\text{th}}$  Edition FBC.

### Formal Interpretation of the following sections:

6th Edition (2017), FBC Existing Building, Chapter 14 Performance Compliance Methods; FBC Building Chapter 4, Special detailed requirements based on use and occupancy; FBC Building, Section 909 Smoke Control Systems.

### **Formal Interpretation.**

The alteration of an existing smoke evacuation or smoke control system, including elimination; is possible, if all the following is provided and demonstrated to the Authority Having Jurisdiction for review, rejection for just cause, or acceptance:

1. A comprehensive evaluation of the building's life safety, fire safety, means of egress, general safety, etc. is performed by a registered architect and/or engineer, in accordance with Chapter 14 Performance Compliance Methods of the 2017 Florida Building Code - Existing Building, Sixth Edition.

2. The result of the alteration or elimination is to maintain or increase the degree of public safety, health and general welfare in existing buildings or structures. The alteration can include the upgrade of existing safety systems and or building safety fixtures; and or the installation of additional safety systems and or building safety fixtures in the building or structure.

3. Any proposed work is permitted and inspected, in accordance with Florida Building Code 6th Edition (2017), Chapter 1, Administration — Broward County.

4. Smoke control systems currently required by the FBC or FFPC shall not be eliminated.

EFFECTIVE DATE: June 15, 2018.

## \*\*\*\*PLEASE POST AT YOUR PERMIT COUNTER\*\*\*\* Page | of | F.I. #21

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