# U.S. DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

National Flood Insurance Piograph

OMB No. 1660-0008

Expiration Date: November 30, 2022

# ELEVATION CERTIFICATE Important: Follow the instructions on pages 1–9.

, , ,

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY IN	FORMATION		FOR INSU	RANCE COMPANY USE
A1. Building Owner's Name Martin Notte		<u></u>	Policy Nun	iber:
A2. Building Street Address (including Apt., Unit, Suite, a	nd/or Bldg. No.) c	r P.O. Route and	Company	NAIC Number:
Box No. 21 Bayview Drive			Company	AND Number.
City	State	F 11	ZIP Code	
Ocean Township (Waretown)	New Jer	•	08758	
A3. Property Description (Lot and Block Numbers, Tax Pa Lot 28 Block 239	arcel Number, Le	gal Description, et	c.)	
A4. Building Use (e.g., Residential, Non-Residential, Add	ition, Accessory,	etc.) Residenti	al	
A5. Latitude/Longitude: Lat. 39°46'33.70" Lon	ng. 74°11'21.83"	Horizonta	Datum: NAD	1927 🔀 NAD 1983
A6. Attach at least 2 photographs of the building if the Ce	rtificate is being u		<del></del>	
A7. Building Diagram Number 6				
A8. For a building with a crawlspace or enclosure(s):				
a) Square footage of crawlspace or enclosure(s)	1	464 00 sq ft		
b) Number of permanent flood openings in the crawls			ahove adjacent or	ode 9
c) Total net area of flood openings in A8.b			above adjacent gra	ide o
d) Engineered flood openings?	1000.00 Sq III			
dy Engineered nood openings?   XI Yes   No				
A9. For a building with an attached garage:				
a) Square footage of attached garage	0.00 sq ft			
b) Number of permanent flood openings in the attached	ed garage within 1	.0 foot above adja	acent grade 0	
c) Total net area of flood openings in A9,b	0.00 sq	in		
d) Engineered flood openings? Yes X No				
Too Mile				e <sup>l</sup>
SECTION B - FLOOD INSU	RANCE RATE I	MAP (FIRM) INF	ORMATION	······································
B1. NFIP Community Name & Community Number	B2. County N	Vame		B3. State
Township of Ocean #340518	Ocean			New Jersey
Number   Date	FIRM Panel Effective/	88. Flood Zone(s)	B9. Base Flood El (Zone AO, use	evation(s) Base Flood Depth)
0.0000000.444	Revised Date 29-2006	AE	6	
				71
B10. Indicate the source of the Base Flood Elevation (BFE	) data or base flo	od depth entered	in Item B9:	
☐ FIS Profile ☒ FIRM ☐ Community Determined				
B11. Indicate elevation datum used for BFE in Item B9:	] NGVD 1929 [5	NAVD 1988 [	Other/Source:	
B12. Is the building located in a Coastal Barrier Resources	Suctan (CDDC)	area as Olhanda	Protected Asset C	DAYO CI V. ST.
5	_	alea or Otherwise	e motected Area (O	PA) (   Yes   X   No
Designation Date: CBR	S OPA			

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 21 Bayview Drive	Policy Number:
City State ZIP Code Ocean Township (Waretown) New Jersey 08758	Company NAIC Number
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY)	REQUIRED)
C1. Building elevations are based on:  Construction Drawings* Building Under Const *A new Elevation Certificate will be required when construction of the building is complete.  C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AF Complete Items C2.a-h below according to the building diagram specified in Item A7. In Pue Benchmark Utilized: GPS observations Vertical Datum: NAVD 1988  Indicate elevation datum used for the elevations in items a) through h) below.  NGVD 1929 NAVD 1988 Other/Source:  Datum used for building elevations must be the same as that used for the BFE.  a) Top of bottom floor (including basement, crawlspace, or enclosure floor)  b) Top of the next higher floor  c) Bottom of the lowest horizontal structural member (V Zones only)  d) Attached garage (top of slab)  e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)  f) Lowest adjacent (finished) grade next to building (LAG)	ruction* X Finished Construction
g) Highest adjacent (finished) grade next to building (HAG)  h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	4.1
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIF	CATION
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by a certify that the information on this Certificate represents my best efforts to interpret the data available statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.  Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No  Certifier's Name	y law to certify elevation information.  able. I understand that any false  Check here if attachments.
David J. Von Steenburg, P.L.S. 34500	
Title P.L.S.  Company Name Morgan Engineering, LLC  Address P.O. Box 5232	Place 500
City State ZIP Code Toms River New Jersey 08754	1000
Signature Date Telephone (732) 270-9690	Ext.
Copy all pages of this E vation Certificate and all attachments for (1) community official, (2) insurance	agent/company, and (3) building owner.
Comments (including type of equipment and location, per C2(e), if applicable)  The dwelling sits on pilings with an enclosure. The foyer entrance is at elevation 10.9'. The hot wat elevation 8.1'. The furnace is lifted in the enclosure at elevation 11.2'. The air conditioner unit sits of Engineered flood vent: Smart Vent 1540-570. Latitude and longitude recorded from Google Earth. Ethrough GPS observations and Leica RTK Network. (Preliminary FEMA Zone/Elev - AE 7 [34029C0 30, 2015])	utside on a platform at elevation 8.8'. Benchmark elevation established

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2022

ling information from Se	ction A.	FOR INSURANCE COMPANY USE
d/or Bldg. No.) or P.O. Ro	ute and Box No.	Policy Number:
		Company NAIC Number
EVATION INFORMATION AND ZONE A (WI	N (SURVEY NOT	REQUIRED)
e, is the top of the bottom   No Unknown. The	tended to support a Check the measured to show whether the ses to show the ses	the elevation is above or below  above or below the HAG.  above or below the LAG.  g (see pages 1–2 of Instructions),  above or below the HAG.  active above or below the HAG.
s Name	A, B, and E are com	ect to the best of my knowledge.
City	Sta	te ZIP Code
Date	Tele	ephone
		,
	State ZIP New Jersey 087  EVATION INFORMATION E AO AND ZONE A (Willed)  -E5. If the Certificate is in atural grade, if available, check the appropriate boadjacent grade (LAG).  penings provided in Section No Unknown. The WER (OR OWNER'S REPIPE who completes Sections as shame	New Jersey 08758  LEVATION INFORMATION (SURVEY NOT E AO AND ZONE A (WITHOUT BFE)  I-E5. If the Certificate is intended to support a natural grade, if available. Check the measured check the appropriate boxes to show whether adjacent grade (LAG).

# **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the cor	responding information from Se	ection A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, \$ 21 Bayview Drive	Suite, and/or Bldg. No.) or P.O. Ro	oute and Box No.	Policy Number:
City Ocean Township (Waretown)		Code 758	Company NAIC Number
	ON G - COMMUNITY INFORMA		
The local official who is authorized by law or of Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, e	ordinance to administer the communication of the communication of the complete the applications of the complete the applications of the complete the complete the applications of the complete the communications of the complete the communications of the communicatio	ınity's floodolain mar	nagement ordinance can complete below. Check the measurement
G1. The information in Section C was tall engineer, or architect who is authoridata in the Comments area below.)	ken from other documentation that zed by law to certify elevation info	t has been signed ar rmation. (Indicate the	nd sealed by a licensed surveyor, a source and date of the elevation
G2. A community official completed Sec or Zone AO.	tion E for a building located in Zon	e A (without a FEMA	N-issued or community-issued BFE)
G3. The following information (Items G4	-G10) is provided for community fi	loodplain manageme	ent purposes.
G4. Permit Number	G5. Date Permit Issued		ate Certificate of ompliance/Occupancy Issued
G7. This permit has been issued for:	New Construction ☐ Substanti	al Improvement	
G8. Elevation of as-built lowest floor (including of the building:	g basement)	feet	meters Datum
G9. BFE or (in Zone AO) depth of flooding at	the building site:	feet	meters Datum
G10. Community's design flood elevation:		feet	meters Datum
Local Official's Name	Title		
Community Name	Telephor	ne	
Signature	Date		
Comments (including type of equipment and loc	cation, per C2(e), if applicable)		
			Check here if attachments.

# **BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

OMB No. 1660-0008 Expiration Date: November 30, 2022

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Building Street Address (including Apt., U	nit, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
21 Bayview Drive			
City	State	ZIP Code	Company NAIC Number
Ocean Township (Waretown)	New Jersey	08758	

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption Front view (06-21-2021)

**ELEVATION CERTIFICATE** 

Clear Photo One



Photo Two

Photo Two Caption Rear view (06-21-2021)

Clear Photo Two

# **BUILDING PHOTOGRAPHS**

# **ELEVATION CERTIFICATE**

Continuation Page

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the	corresponding information	from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Un 21 Bayview Drive	it, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
City Ocean Township (Waretown)	State New Jersey	ZIP Code 08758	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

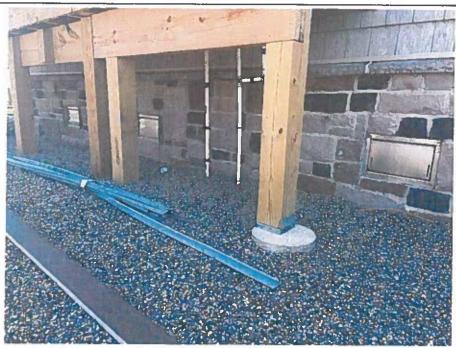


Photo Three

Photo Three Caption Engineered flood vent: Smart Vent 1540-570 (06-21-2021)

Clear Photo Three

**Photo Four** 

Photo Four

**Photo Four Caption** 

Clear Photo Four



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**ESR-2074** 

Reissued 02/2017
This report is subject to renewal 02/2019.

DIVISION: 08 00 00—OPENINGS

SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

## REPORT HOLDER:

# SMARTVENT PRODUCTS, INC.

430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071

## **EVALUATION SUBJECT:**

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514



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# ESR-2074

Reissued February 2017 Revised November 2017

This report is subject to renewal February 2019.

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00—OPENINGS

Section: 08 95 43-Vents/Foundation Flood Vents

#### REPORT HOLDER:

SMARTVENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368 www.smartvent.com info@smartvent.com

#### **EVALUATION SUBJECT:**

SMART VENT® AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514

### 1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2015, 2012, 2009 and 2006 International Building Code® (IBC)
- 2015, 2012, 2009 and 2006 International Residential Code® (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)<sup>1</sup>

<sup>1</sup>The ADIBC is based on the 2009 IBC, 2009 IBC codu sections referenced in this report are the same sections in the ADIBC.

## Properties evaluated:

- Physical operation
- Water flow

## **2.0 USES**

The Smart Vent units are engineered mechanically operated flood vents (FVs) employed to equalize hydrostatic pressure on walls of enclosures subject to rising or falling flood waters. Certain models also allow natural ventilation.

#### 3.0 DESCRIPTION

### 3.1 General:

When subjected to rising water, the Smart Vent<sup>8</sup> FVs internal floats are activated, then pivot open to allow flow in either direction to equalize water level and hydrostatic pressure from one side of the foundation to the other. The FV pivoting door is normally held in the closed position by a buoyant release device. When subjected to rising water,

the buoyant release device causes the unit to unlatch. allowing the door to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. Smart Vent® Automatic Foundation Flood Vents are available in various models and sizes as described in Table 1. The SmartVENT® Stacking Model #1540-511 and FloodVENT® Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

## 3.2 Engineered Opening:

The FVs comply with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2.2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)] for a maximum rate of rise and fall of 5.0 feet per hour (0,423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Smart Vent FVs must be installed in accordance with Section 4.0.

#### 3.3 Ventilation:

The SmartVENT® Model #1540-510 and SmartVENT® Overhead Door Model #1540-514 both have screen covers with  $\frac{1}{4}$ -inch-by- $\frac{1}{4}$ -inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm<sup>2</sup>) of net free area to supply natural ventilation. The SmartVENT® Stacking Model #1540-511 consists of two Model #1540-510 units in one assembly, and provides 102 square inches (65 806 mm<sup>2</sup>) of net free area to supply natural ventilation Other FVs recognized in this report do not offer natural ventilation.

## 4.0 DESIGN AND INSTALLATION

SmartVENT® and FloodVENT® are designed to be installed into walls or overhead doors of existing or new construction from the exterior side. Installation of the vents must be in accordance with the manufacturer's instructions, the applicable code and this report. Installation clips allow mounting in masonry and concrete walls of any thickness. In order to comply with the engineered opening design principle noted in Section 2.7.2.2 and 2.7.3 of ASCE/SEI 24-14 [Section 2.6.2,2 of ASCE/SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Smart Vent® FVs must be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one FV for every 200 square feet (18.6 m2) of enclosed area, except that the SmartVENT® Stacking Model #1540-511 FloodVENT<sup>®</sup> Stacking Model #1540-521 must be



installed with a minimum of one FV for every 400 square feet (37.2 m<sup>2</sup>) of enclosed area.

- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305.4 mm) above the higher of the final grade or floor and finished exterior grade immediately under each opening.

## 5.0 CONDITIONS OF USE

The Smart Vent<sup>9</sup> FVs described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 The Smart Vent® FVs must be installed in accordance with this report, the applicable code and the manufacturer's installation instructions. In the event of a conflict, the instructions in this report govern. 5.2 The Smart Vent<sup>®</sup> FVs must not be used in the place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.

## 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015.

# 7.0 IDENTIFICATION

The Smart VENT<sup>®</sup> models recognized in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).

### TABLE 1---MODEL SIZES

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVENT®	1540-520	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT*	1540-510	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
FloodVENT <sup>®</sup> Overhead Door	1540-524	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Overhead Door	1540-514	15 <sup>3</sup> / <sub>4</sub> " X 7 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT®	1540-570	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 <sup>3</sup> / <sub>4</sub> "	200
SmartVENT® Stacker	1540-511	16" X 16"	400
FloodVent® Stacker	1540-521	16" X 16"	400

For SI: 1 inch = 25.4 mm; 1 square foot =  $m^2$ 

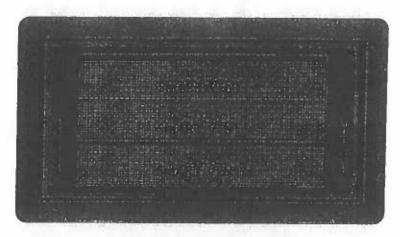


FIGURE 1—SMART VENT; MODEL 1540-510



FIGURE 2-SMART VENT MODEL 1540-520

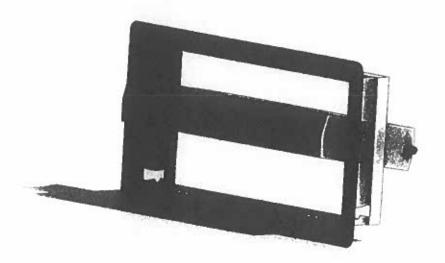


FIGURE 3—SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



# ESR-2074 CBC and CRC Supplement

Issued February 2017 Revised November 2017 This report is subject to renewal February 2019.

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A Subsidiary of the International Code Council®

**DIVISION: 08 00 00—OPENINGS** 

Section: 08 95 43-Vents/Foundation Flood Vents

REPORT HOLDER:

SMARTVENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368 www.smartvent.com info@smartvent.com

**EVALUATION SUBJECT:** 

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### 1.0 REPORT PURPOSE AND SCOPE

## Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, recognized in ICC-ES master evaluation report ESR-2074, have also been evaluated for compliance with codes noted below.

#### Applicable code edition:

- 2016 California Building Code (CBC)
- 2016 California Residential Code (CRC)

### 2.0 CONCLUSIONS

#### 2.1 CBC:

The Smart Vent<sup>®</sup> Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with 2016 CBC Chapter 12, provided the design and installation are in accordance with the 2015 International Building Code<sup>®</sup> (IBC) provisions noted in the master report and the additional requirements of CBC Chapters 12, 16 and 16A, as applicable.

The products recognized in this supplement have not been evaluated under CBC Chapter 7A for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

## 2.2 CRC:

The Smart Vent\* Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the 2016 CRC, provided the design and installation are in accordance with the 2015 *International Residential Code*\* (IRC) provisions noted in the master report.

The products recognized in this supplement have not been evaluated under 2016 CRC Chapter R337, for use in the exterior design and construction of new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area.

The products recognized in this supplement have not been evaluated for compliance with the International Wildland-Urban Interface Code ...

This supplement expires concurrently with the master report, reissued February 2017 and revised November 2017.



# **ESR-2074 FBC Supplement**

Reissued February 2017 Revised November 2017 This report is subject to renewal February 2019

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A Subsidiary of the International Code Council®

DIVISION: 08 00 00-OPENINGS

Section: 08 95 43-Vents/Foundation Flood Vents

REPORT HOLDER:

SMARTVENT PRODUCTS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (877) 441-8368 www.smartvent.com info@smartvent.com

**EVALUATION SUBJECT:** 

SMART VENT<sup>®</sup> AUTOMATIC FOUNDATION FLOOD VENTS: MODELS #1540-520; #1540-521; #1540-510; #1540-511; #1540-570; #1540-574; #1540-524; #1540-514

## 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent® Automatic Foundation Flood Vents, recognized in ICC-ES master report ESR-2074, have also been evaluated for compliance with the codes noted below.

## Applicable code editions:

- 2017 Florida Building Code—Building
- 2017 Florida Building Code—Residential

### 2.0 CONCLUSIONS

The Smart Vent® Automatic Foundation Flood Vents, described in Sections 2.0 through 7.0 of the master evaluation report ESR-2074, comply with the *Florida Building Code—Building* and the FRC, provided the design and installation are in accordance with the 2015 *International Building Code®* provisions noted in the master report.

Use of the Smart Vent® Automatic Foundation Flood Vents has also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the Florida Building Code—Building and the Florida Building Code—Residential.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report, reissued February 2017 and revised November 2017.