ELEVATION CERTIFICATES NEPTUNE TOWNSHIP CID 340317

U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

OMB No. 1660-0008 Expiration Date: November 30, 2018

320

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

Γ	SEC	TION A - PROPERTY	INFORMATION	F	OR INSUF	RANCE COMPANY US
1	A1. Building Owner's Name WILLIAM C. & MARIA ANN CLO	DHOSEY, H/W	,	P	olicy Num	ber:
	A2. Building Street Address (Ind Box No. 104 HIGHLAND AVENUE	cluding Apt., Unit, Suite	, and/or Bldg. No.) or P.O	. Route and C	ompany N	IAIC Number:
-	City NEPTUNE		State New Jersey		P Code 7753	······································
	A3. Property Description (Lot an LOT 4 IN BLOCK 5412	nd Block Numbers, Tax	Parcel Number, Legal De	escription, etc.)		
Γ	A4. Building Use (e.g., Residen	tial, Non-Residential, A	ddition, Accessory, etc.)	RESIDENTIAL		
	A5, Latitude/Longitude: Lat. 4	0*-11'-27.7"	_ong. <u>- 74*-02'-23.6"</u>	Horizontal Datum:	NAD 1	1927 🔀 NAD 1983
	A6. Attach at least 2 photograp	hs of the building if the	Certificate is being used t	o obtain flood insuran	ce.	
	A7. Building Diagram Number	7				
-	A8. For a building with a crawls	pace or enclosure(s):				
	a) Square footage of crawle	space or enclosure(s)	1,075 sq ft			
	b) Number of permanent flo	ood openings in the cra	wlspace o <i>r</i> enclosure(s) w	vithin 1.0 foot above a	djacent gra	ade <u>5</u>
	c) Total net area of flood op	penings in A8.b	<u>1.000 sqin (Ĉor</u>	nected to Garage	= 2 add!	tional vents, see
	d) Engineered flood openin	gs? 🛛 Yes 🗌 No	0. 0 Å			•
	A9. For a building with an attach	ned garage:				
	a) Square footage of attach	ied garage277	sq ft			
	b) Number of permanent flo	ood openings in the atta	ached garage within 1.0 fo	ot above adjacent gra	de	2
- 1						
	c) Total net area of flood op	penings in A9.b 4	00 * sq in			
	c) Total net area of flood opd) Engineered flood openin					
	d) Engineered flood openin	gs? 🔀 Yes 🗌 No	ISURANCE RATE MAP		ON	
	d) Engineered flood openin	gs? 🔀 Yes 🗌 No CTION B – FLOOD IN ommunity Number	D		<u>ON</u>	B3. State New Jersey
	d) Engineered flood openin SE B1. NFIP Community Name & C	gs? 🔀 Yes 🗌 No CTION B – FLOOD IN ommunity Number	B2. County Name MONMOUTH B7. FIRM Panel Effective/		B9. Bas (Zor	New Jersey Flood Elevation(s) AD, use Base
	d) Engineered flood openin SE B1. NFIP Community Name & C NEPTUNE TOWNSHIP 3403 B4. Map/Panel B5. Suffix	Igs? X Yes No CTION B – FLOOD IN ommunity Number 17 B6. FIRM Index	B2. County Name MONMOUTH))	B9. Bas (Zor	New Jersey
	d) Engineered flood openin SE B1. NFIP Community Name & C NEPTUNE TOWNSHIP 3403 B4. Map/Panel B5. Suffix Number B5. Suffix	Igs? X Yes No CTION B – FLOOD IN ommunity Number 17 B6. FIRM Index Date 09/25/2009 Base Flood Elevation (I	B7. FIRM Panel Effective/ Revised Date 09/25/2009 BFE) data or base flood do	B8. Flood Zone(s)	B9. Bas (Zor Floc 9	New Jersey e Flood Elevation(s) he AO, use Base
	d) Engineered flood openin SE B1. NFIP Community Name & C NEPTUNE TOWNSHIP 3403 B4. Map/Panel B5. Suffix Number B5. Suffix 34025C0333 F B10. Indicate the source of the I	Igs? X Yes No CTION B – FLOOD IN ommunity Number 17 B6. FIRM Index Date 09/25/2009 Base Flood Elevation (I Community Determ	B7. FIRM Panel Effective/ Revised Date 09/25/2009 BFE) data or base flood do ined	B8. Flood Zone(s) AE epth entered in Item B	B9. Bas (Zor Floc 9	New Jersey e Flood Elevation(s) ne AO, use Base
	d) Engineered flood openin SE B1. NFIP Community Name & C NEPTUNE TOWNSHIP 3403 B4. Map/Panel Number 34025C0333 F B10. Indicate the source of the I B10. Indicate the source of the I FIS Profile X FIRM	Igs? X Yes No CTION B – FLOOD IN ommunity Number 17 B6. FIRM Index Date 09/25/2009 Base Flood Elevation (I Community Determ sed for BFE in Item B9	B7. FIRM Panel Effective/ Revised Date 09/25/2009 BFE) data or base flood do ined Other/Source:	B8. Flood Zone(s) AE epth entered in Item B	B9. Bas (Zor Floc 9 9: */Source:	New Jersey e Flood Elevation(s) he AO, use Base od Depth)
	d) Engineered flood openin SE B1. NFIP Community Name & C NEPTUNE TOWNSHIP 3403 B4. Map/Panel B5. Suffix Number B5. Suffix 34025C0333 F B10. Indicate the source of the I FIS Profile S FIRM B11. Indicate elevation datum u	Igs? X Yes No CTION B – FLOOD IN ommunity Number 17 B6. FIRM Index Date 09/25/2009 Base Flood Elevation (I Community Determ sed for BFE in Item B9 Coastal Barrier Resou	B7. FIRM Panel Effective/ Revised Date 09/25/2009 BFE) data or base flood do ined Other/Source:	B8. Flood Zone(s) AE epth entered in Item B	B9. Bas (Zor Floc 9 9: */Source:	New Jersey e Flood Elevation(s) he AO, use Base bd Depth)

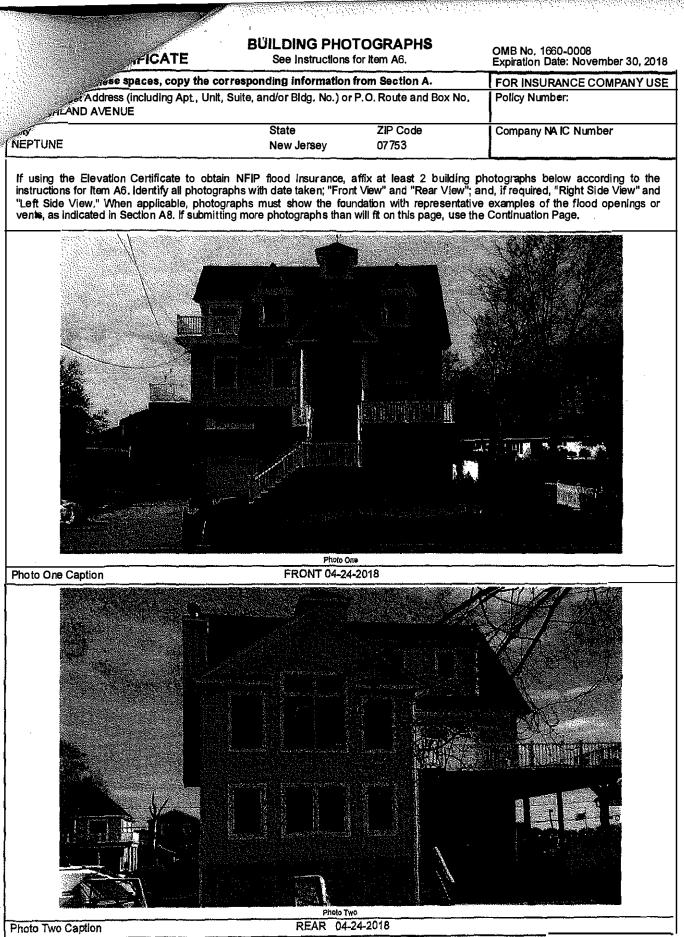
		and the second	OMB Expiration	
IPORTANT: In these spaces, copy the correspondi	ng information fr	om Section A.	FOR INSURANCE	
Building Street Address (including Apt., Unit, Suite, and) 04 HIGHLAND AVENUE	or Bidg, No.) or P		Policy Number:	
	tate ew Jer s ey	ZIP Code 07753	Company NAIC Number	
SECTION C - BUILDING E	LEVATION INFO	ORMATION (SURVEY R	EQUIRED)	
C1. Building elevations are based on: Construct *A new Elevation Certificate will be required when	-	Building Under Constr	uction* X Finished Construction	
C2. Elevations – Zones A1–A30, AE, AH, A (with BFE Complete Items C2.a–h below according to the bu Benchmark Utilized: <u>GPS</u>), VE, V1–V30, V iilding diagram sp	(with BFE), AR, AR/A, AR	/AE, AR/A1-A30, AR/AH, AR/AO. to Rico only, enter meters.	
Indicete elevation datum used for the elevations In NGVD 1929 🔀 NAVD 1988 🗍 Othe Datum used for building elevations must be the sa	r/Source:			
a) Top of bottom floor (Including basement, crawl	space, or enclosu		Check the measurement used.	
b) Top of the next higher floor		<u> </u>	Feet meters	
c) Bottom of the lowest horizontal structural mem	ber (V Zones only	•	X feet I meters	}
d) Attached garage (top of slab)		<u> </u>	X feet I meters	
 e) Lowest elevation of machinery or equipment so (Describe type of equipment and location In Co 	omments)		——— 🔀 feet 🗌 meters	
f) Lowest adjacent (finished) grade next to building	ng (LAG)	5_9	——— 🔀 feet 🔲 met er s	}
g) Highest adjacent (finished) grade next to build	ng (HAG)	6.7	🗙 feet 🔲 meters	{
 h) Lowest adjacent grade at lowest elevation of d structural support 	eck or stairs, Inclu	ıding <u>5, 9</u>	🛄 feet 🔲 meters	
SECTION D - SURVEYO	R, ENGINEER, C	OR ARCHITECT CERTIF	ICATION] [2
This certification is to be signed and sealed by a land s I certify that the Information on this Certificate represer statement may be punishable by fine or Imprisonment	urveyor, enginee Its my best efforts under 18 U.S. Co	, or architect authorized by to interpret the data available, Section 1001.	y law to certify elevation Information. able. I understand that any false	
Were latitude and longitude in Section A provided by a	licensed land sur	veyor? 🛛 Yes 🗌 No	⊠ Check here if attachments.	
Certifier's Name STANLEY HANS JR.	License Numl 29182	ber		
Title	20104		_	
PROFESSIONAL LAND SURVEYOR				{
Company Name RC BURDICK, PE, PP			Place Seal	1
Address			Here	1
1023 OCEAN ROAD				1
City POINT PLEASANT	State New Jersey	ZI P Code 08742		
Signature Handley Hang	Date 04/24/2018	Telephone (732) 892-5050	~~~]	1
Copy all pages of this Elevation Certificate and all attach	nents for (1) comm	unity official, (2) insurance	agent/company, and (3) building owner,]
Comments (including type of equipment and location, p	er C2(e), If applic	able)	╺────────────────────────────────────]
GARAGE / STORAGE ≍6,3' FF≕13.6' A/C≍ 145' I GARAGE HAS 2 (1540-510) SMART VENTS 2 X 200= DPENING BETWEEN GARAGE AND STORAGE ALLO	400 SQ, IN'S		5 X 200= 1,000 SQ. IN'S	
BEST AVAILABLE DATA PER FEMA PRELIMINARY F	IRM PANEL # 34	025©0333G UPDATED T	HROUGH 01/30/2015 BFE=AE 10'	
	places all previou		LLOC Form Page 2 of 6	1

,-iCAT				No. 1660-000 ation Date: N	
se spaces, co	by the corresponding informatio	on from Section A.			
Address (Including A	pt., Unit, Suite, and/or Bldg. No.)	or P.O. Route and Box	No. Poli	cy Number:	
NEPTUNE	State New Jersey	ZIP Code 07753	Corr	npany NAIC N	umber
SECTION	E - BUILDING ELEVATION INF FOR ZONE AO AND ZO	FORMATION (SURV	EY NOT REQ	UIRED)	
For Zones AO and A (without BFE), complete Sections A, B,and C. For enter meters.	complete Items E1–E5. If the Cer Items E1–E4, use natural grade, It	rtificate is Intended to s f available. Check the	support a LOM measurement	A or LOMR-F used. In Puer	request, to Rico only,
E1. Provide elevation information for the highest adjacent grade (HA	G) and the lowest adjacent grade	ropriate boxes to shov (LAG).	v whether the o	elevation Is ab	ove or below
a) Top of bottom floor (Includir crawlspace, or enclosure) i	s	[] fe et	meters] above or [] below the H
 b) Top of bottom floor (includir crawlspace, or enclosure) I 		feet	meters] above or [] below the L
E2. For Building Diagrams 6-9 with the next higher floor (elevation	Ċ2,b In	_	•		
the diagrams) of the building is E3. Attached garage (top of slab) is] above or [] above or [_
E4. Top of platform of machinery a					
servicing the building is	,			_ above or _ nce with the c	-
E5. Zone AO only: If no flood depti	number is available, is the top of				
floodplain management ordina	number is available, is the top of nce? Yes No Unk	nown. The local offic	al must certify	this informati	on in Section
floodplain management ordina SECTION F		nown. The local offic	al must certify	r this informati	on in Section
floodplain management ordina	nce? Yes No Unk	nown. The local offic	al must certify TIVE) CERTIF E for Zone A	r this informati FICATION (without a FEI	on in Section
floodplain management ordina SECTION F The property owner or owner's auth	nce? Yes No Unk	nown. The local offic	al must certify TIVE) CERTIF E for Zone A	r this informati FICATION (without a FEI	on in Section
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AG	nce? Yes No Unk	nown. The local offic	al must certify TIVE) CERTIF E for Zone A	r this informati FICATION (without a FEI	on in Section
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone A(Property Owner or Owner's Authori	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and I	al must certify TIVE) CERTIF E for Zone A E are correct to	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori Address	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or hy knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge
floodplain management ordina SECTION F The property owner or owner's auth community-issued BFE) or Zone AC Property Owner or Owner's Authori; Address Signature	nce? Yes No Unk	nown. The local offic NER'S REPRESENTA Intes Sections A, B, and In Sections A, B, and B City	al must certify TIVE) CERTIF E for Zone A E are correct to State	this informati FICATION (without a FEI the best of n	on in Section MA-issued or ny knowledge

I

310

					\mathcal{D}
			Expiration		
MPORTANT: In these spaces, copy the corr			FOR INSURA		
Building Street Address (Including Apt., Unit, S 104 HIGHLAND AVENUE	uite, and/or Bidg. No.) (or P.O. Route and Bo	ox No. Policy Numbe	er:	
Dity NEPTUNE	State New Jersey	ZIP Code 07753	Company NA	IC Number	1
SECTIO	ON G - COMMUNITY I	NFORMATION (OP)	IONAL)		
 The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, en G1. The information in Section C was tak engineer, or architect who is authoriz data in the Comments area below.) G2. A community official completed Sect or Zone AO. G3. The following information (Items G4- 	n Certificate. Complete i iter meters. an from other documer ad by law to certify ele ion E for a building loca	the applicable item(s nation that has been vation information. (In nted in Zone A (witho	and sign below. Check signed and sealed by a ndicate the source and d ut a FEMA-lssued or con	the measurement licensed surveyor, ate of the elevation	
64. Permit Number	G5. Date Permit Issu	Jed	G6. Date Certificate Compliance/Oct		
	New Construction] Substantial Improve	ement		
38. Elevation of as-built lowest floor (including of the building:	g basement)		🗌 feet 🗌 meters 🛛	Datum	
69. BFE or (In Zone AO) depth of flooding at	the building site;		🔲 feet 🔲 meters [Datum	1 335 -
610. Community's design flood elevation:			🔲 feet 🗌 meters	Datum	
.ocal Official's Name		Title			
Community Name		Telephone			
Signature		Date			1
Comments (including type of equipment and lo	cation, per C2(e), if app	olicable)			_
			·		1
					}
					1
· · · ·					
			🔀 Chec	k here if attachments.	
				Form Page 4 of 6	3



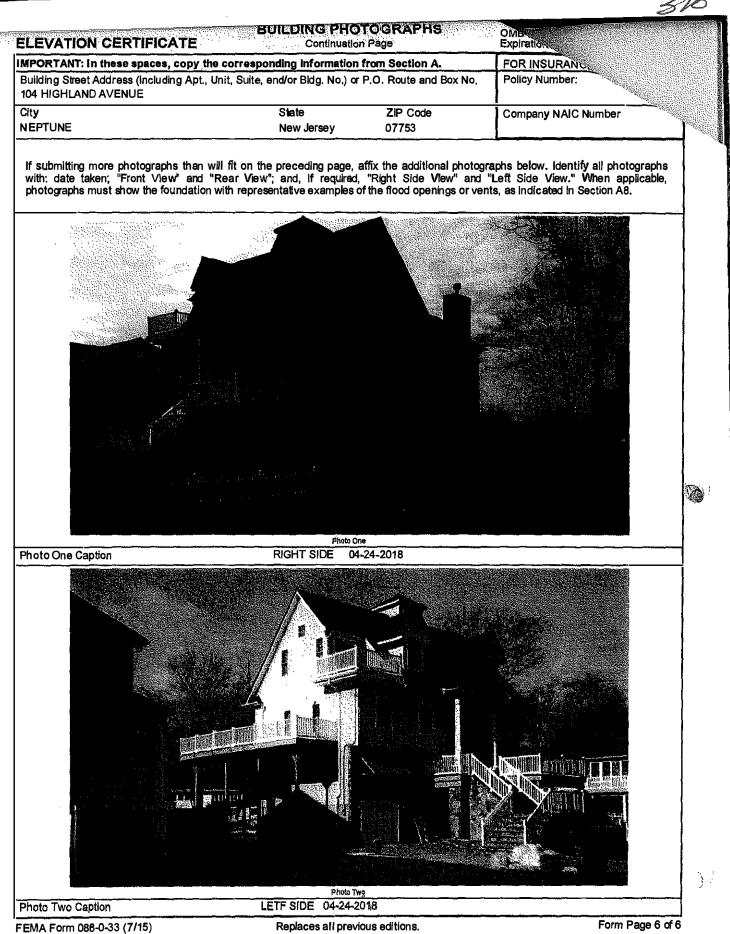
FEMA Form 086-0-33 (7/15)

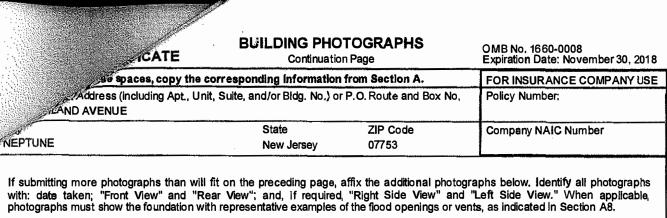
J.

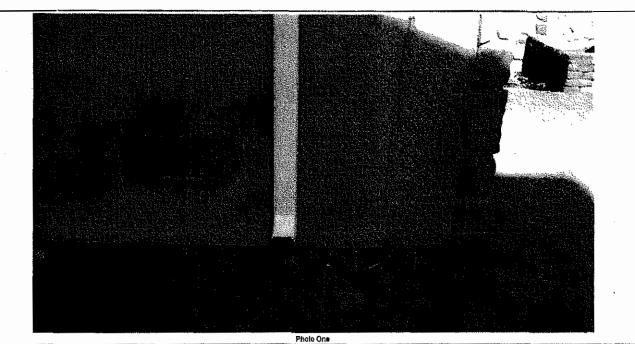
Replaces all previous editions.

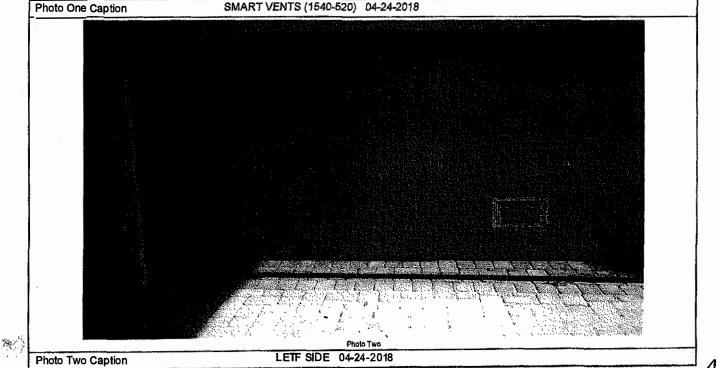
Form Page 5 of 6

Leboli









FEMA Form 086-0-33 (7/15)

B

Replaces all previous editions.

Form Page 6 of 6



RVIC

LUATION

Most Widely Accepted and Trusted

310

ESR-2074* Reissued December 1, 2012 This report is subject to renewal February 1, 2015.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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; FLOODVENT™ MODEL #1540-520; FLOODVENT™ STACKING MODEL #1540-521; SMARTVENT™ MODEL #1540-510; SMARTVENT™ STACKING MODEL #1540-511; WOOD WALL FLOOD MODEL #1540-570; WOOD WALL FLOOD OVERHEAD DOOR MODEL #1540-574; FLOODVENT™ OVERHEAD DOOR MODEL #1540-524; SMARTVENT™ OVERHEAD DOOR MODEL #1540-514

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 and 2006 International Building Code[®] (IBC)
- 2009 and 2006 International Residential Code[®] (IRC)

Properties evaluated:

- Physical operation
- Water flow

2.0 USES

The Smart Vent[®] units are automatic foundation flood vents (AFFVs) employed to equalize hydrostatic pressure on nonfire-resistance-rated foundation walls, rolling-type overhead doors and building walls subject to rising or falling flood waters. The Smart Vent[®] units are intended for use where flood hazard areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1, Certain models also allow natural ventilation in accordance with Section 1203 of the IBC or Section 408.1 of the IRC,

3.0 DESCRIPTION

3.1 General:

When subjected to pressure from rising water, the Smart Vent[®] AFFVs disengage, then pivot open to allow flow in either direction to equalize water level and hydrostatic

A Subsidiary of the International Code Council®

pressure from one side of the foundation to the other. The AFFV 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 plate to rotate out of the way and allow flow. The water level stabilizes, equalizing the lateral forces. Each unit is fabricated from stainless steel. The SmartVENTTM Stacking Model #1540-521 units each contain two vertically arranged openings per unit.

3.2 Engineered Opening:

The AFFVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 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 AFFVs must be installed in accordance with Section 4.0.

3.3 Model Sizes:

The FloodVENTTM Model #1540-520, SmartVENTTM Model #1540-510, FloodVENTTM Overhead Door Model #1540-524, and SmartVENTTM Overhead Door Model #1540-514 units measure $15^{3}/_{4}$ inches wide by $7^{3}/_{4}$ inches high (400 by 196.9 mm). The Wood Wall Flood Model #1540-570 and Wood Wall Flood Overhead Door Model #1540-574 units measure 14 inches wide by $8^{3}/_{4}$ inches high (355.6 by 222.25 mm). The SmartVENTTM Stacking Model #1540-511 and FloodVENTTM Stacking Model #1540-521 units measure 16 inches wide by 16 inches high (406.4 by 406.4 mm).

3.4 Ventilation:

The SmartVENT[®] Model #1540-510 and SmartVENT[®] Overhead Door Model #1540-514 both have screen covers with ¹/₄-Inch-by-¹/₄-Inch (6.35 by 6.35 mm) openings, yielding 51 square Inches (32 903 mm²) 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 mm²) of net free area to supply natural ventilation. Other AFFVs recognized in this report do not offer natural ventilation.

4.0 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. The mounting straps allow mounting in wood, masonry and

*Revised July 2013

ICCES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warrantyby ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



accepted and Trusted

to 12 inches (305 mm) thick. In order to the engineered opening design principle noted on 2.6.2.2 of ASCE/SEI 24, the Smart Vent® AFFVs be installed as follows:

- With a minimum of two openings on different sides of each enclosed area.
- With a minimum of one AFFV for every 200 square feet (18.6 m²) of enclosed area, except that the SmartVENT[™] Stacking Model #1540-511 and FloodVENT[™] Stacking Model #1540-521 must be installed with a minimum of one AFFV for every 400 square feet (37.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the AFFV located a maximum of 12 inches (305.4 mm) above grade.

5.0 CONDITIONS OF USE

The Smart Vent[®] AFFVs 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:

Page 2 of 2

310

- 5.1 The Smart Vent[®] AFFVs 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[®] AFFVs must not be used in the place of "breakaway wallss" 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 Automatic Foundation Flood Vents (AC364), dated October 2007.

7.0 IDENTIFICATION

The Smart VENT[®] 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).



ICC-ES Evaluation Report

Most Widely Accepted and Trusted

ESR-2074 FBC Supplement

Issued July 1, 2013 This report is subject to renewal February 1, 2015.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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: FLOODVENT[™] MODEL #1540-520; FLOODVENT[™] STACKING MODEL #1540-521; SMARTVENT[™] MODEL #1540-510; SMARTVENT[™] STACKING MODEL #1540-511; WOOD WALL FLOOD MODEL #1540-570; WOOD WALL FLOOD OVERHEAD DOOR MODEL #1540-574; FLOODVENT[™] OVERHEAD DOOR MODEL #1540-524; SMARTVENT[™] OVERHEAD DOOR MODEL #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:

- 2010 Florida Building Code—Building (FBC)
- 2010 Florida Building Code—Residential (FRC)

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 FBC and the FRC, provided the design and installation are in accordance with the *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 FBC and the FRC for structures not subject to FBC Section 2326.3.1 or FRC Section 4409.13.3.1, as applicable.

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 December 1, 2012, revised July 2013.

ICC&S Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report or as to any product covered by the report.





Most Widely Accepted and Trusted

ICC-ES Evaluation Report

ICC-ES | (800) 423-6587 | (562) 699-0543 | www.icc-es.org

ESR-2074

510

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

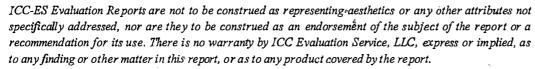
EVALUATION SUBJECT:

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



Look for the trusted marks of Conformity!

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



A Subsidiary of



Copyright [©] 2017 ICC Evaluation Service, LLC. All rights reserved.

ES ICC EVALUATION SERVICE

ICC-ES Evaluation Report

Most Widely Accepted

ESR-2074

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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)[†]

 $^{\dagger} \text{The ADIBC}$ is based on the 2009 IBC. 2009 IBC code 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[®] 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,

A Subsidiary of the International Code Council®

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 ¹/₄-Inch-by-¹/₄-inch (6.35 by 6.35 mm) openings, yielding 51 square inches ($32\,903\,mm^2$) 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 ($65\,806\,mm^2$) 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 masony 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 and FloodVENT[®] Stacking Model #1540-521 must be

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be canstrued as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report



Copyright@ 2017 ICC Evaluation Service, LLC. All rights reserved.

Page 1 of 5

÷F.

ेंझ

Page 2 of 5

Accepted and Trusted

the feet (37.2 m²) of enclosed area.

w 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[®] 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[®] 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

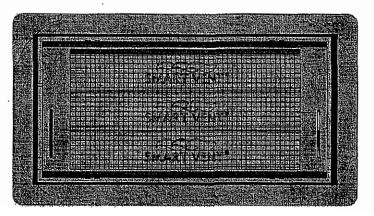
The Smart VENT[®] models recognized in this report must be identified by a label bearing the manufacturer's name (Smartvent Products, Inc.), the model number, and the evaluation report number (ESR-2074).

MODEL NAME	MODEL NUMBER	MODEL SIZE (In.)	COVERAGE (sq. ft.)
FloodVENT®	1540-520	15 ³ /4" X 7 ⁹ /4"	200
SmartVENT [®]	1540-510	15 ³ / ₄ " X 7 ³ / ₄ "	200
FloodVENT [®] Overhead Door	1540-524	15 ³ / ₄ " X 7 ³ / ₄ "	200
SmartVENT [®] Overhead Door	1540-514	15 ³ /₄" X 7 ³ /₄"	200
Wood Wall FloodVENT®	1540-570	14" X 8 ³ /4"	200
Wood Wall FloodVENT [®] Overhead Door	1540-574	14" X 8 ³ / ₄ "	200
SmartVENT [®] Stacker	1540-511	16" X 16"	400
FloodVent [®] Stacker	1540-521	16" X 16"	400

TABLE 1-MODEL SIZES

For SI: 1 inch = 25.4 mm; 1 square foot= m²

ESR-2074 | Most Widely Accepted and Trusted



312

FIGURE 1--SMARTVENT: MODEL 1540-510

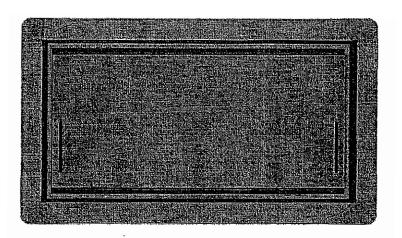


FIGURE 2--SMART VENT MODEL 1540-520

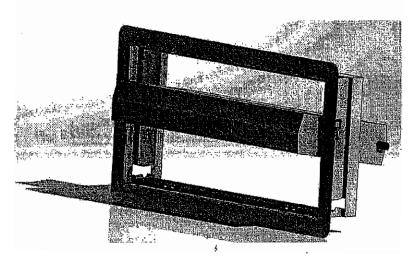


FIGURE 3---SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

CC-ES Evaluation Report

ESR-2074 CBC and CRC Supplement

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

Most Widely Accepted and Trusted

510

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 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 Bullding Code (CBC)

2016 California Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Smart Vent[®] 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*[®] (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.

ICCES Evaluation Reports are not to be construed as te presenting aesilicatics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

Page 4 of 5

Most Widely Accepted

ICC-ES Evaluation Report

ESR-2074 FBC Supplement

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 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.

ICCES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright@2017 ICC Evaluation Service, LLC. All rights reserved.

Page 5 of 5

U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency Nation Flood Insurance Program

w

OMB No. 1660-0008 Expiration Date: November 30, 2018

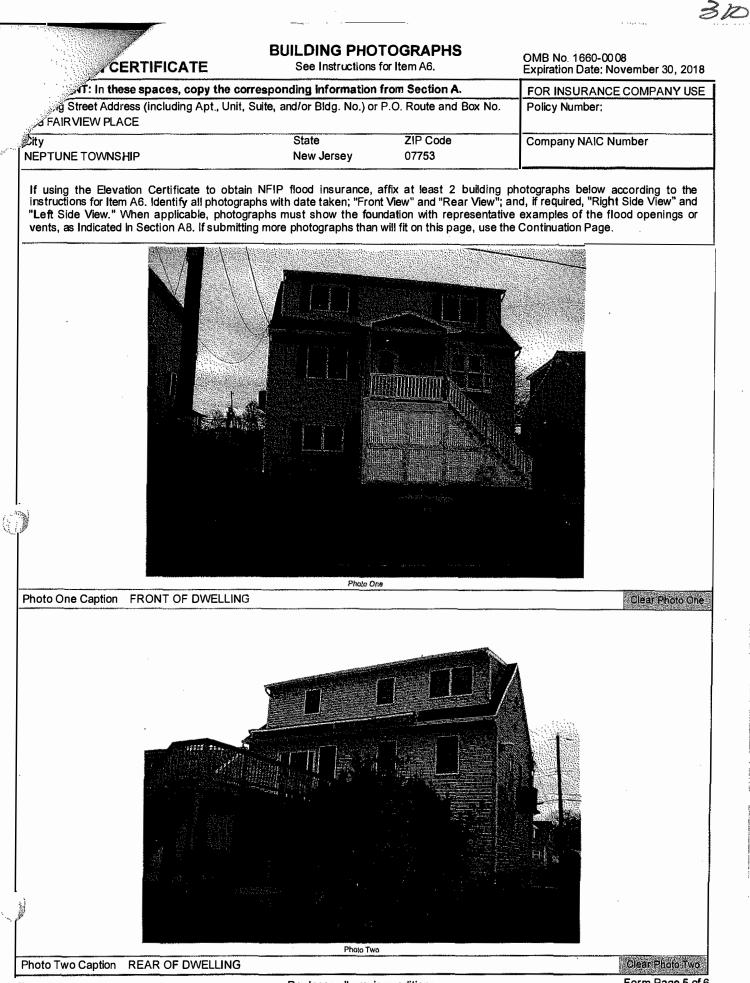
310

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

SEC	TION A - PROPERT		MATION		FOR INSU	RANCE COMPANY US
A1. Building Owner's Name FRAN MARTONE			<u> </u>		Policy Num	ber:
 A2. Building Street Address (in Box No. 105 FAIRVIEW PLACE 	ncluding Apt., Unit, Sui	ite, and/o	Bldg. No.) o	or P.O. Route ar	nd Company I	NAIC Number:
City		·····	State		ZIP Code	
		.	New Jer		07753	
A3. Property Description (Lot LOT 11 BLOCK 5306 (TAX M		ax Parce	Number, Le	gal Description,	etc.)	
A4. Building Use (e.g., Reside	ntial, Non-Residential,	, Addition,	Accessory,	etc.) RESIDI	ENTIAL	
A5. Latitude/Longitude: Lat.4	10-11-04.326 N	Long. 74	-02-27.431	W Horizor	ntal Datum: 🔲 NAD	1927 🗙 NAD 1983
A6. Attach at least 2 photogra	phs of the building if th	 e Certific	ate is being i	used to obtain fi	ood insurance.	
A7. Building Diagram Number			-			
A8. For a building with a craw		•				
a) Square footage of crav				858.38 sq ft		
b) Number of permanent f					of above adjacent or	ada 5
					ou above adjacent gr	
c) Total net area offlood o			000.00 sqin	1		
d) Engineered flood open	ngs? 🛛 Yes 🛄 I	No				
A9. For a building with an attac	hed garage:					
a) Square footage of attac	hed garage		N/A sq f	l		
b) Number of permanent f	ood openings in the at	ttached ga	arage within	1.0 foot above a	adjacent grade N/A	
c) Total net area of flood o	peninos in A9.b		N/A sq	in		
d) Engineered flood openi	ngs? []res []r	No				
S	ECTION B - FLOOD	INSURA	NCE RATE	MAP (FIRM) II	NFORMATION	
B1. NFIP Community Name &	Community Number		B2. County			B3. State
NEPTUNE TOWNSHIP 34031	7		MONMOUT	Н		New Jersey
4. Map/Panel B5. Suffix	B6. FIRM Index		MPanel	B8. Flood	B9. Base Flood E	
Number	Date		ctive/ ised Date	Zone(s)	(Zone AO, us	e Base Flood Depth)
4025C0333 F	09-25-2009	09-25-2	009	AE	9	
	_		<u> </u>			
B10. Indicate the source of the				•	ed in Item B9:	,
🗌 FIS Profile 🔀 FIRM	Community Deter	mined [] Other/Sou	rce:		
B11. Indicate elevation datum	used for BFE in Item B	89: 🔲 NO	SVD 1929	🔀 NAVD 1988	Other/Source:	
			, i		Nino Protostad Area /	
	Contol Borriss Des-					
B12. is the building located in Designation Date:		•		area or Otherv		OPA)? []Yes [X] No

			OMB No. 1660-0008
			Expiration Date: November 30, 20
	the corresponding information		FOR INSURANCE COMPANY L
ang Street Address (including Ap d5 FAIRVIEW PLACE	t., Unit, Suite, and/or Bidg. No.)	or P.O. Route and Box No.	Policy Number:
City NEPTUNE TOWNSHIP	State New Jersey	ZIP Code 07753	Company NAIC Number
SECTION	C - BUILDING ELEVATION	NFORMATION (SURVEY	I / REQUIRED)
C2. Elevations Zones A1-A30, A	I be required when construction	of the building is complete. 0, V (with BFE), AR, AR/A, A	AR/AE. AR/A1-A30. AR/AH. AR/AO.
Benchmark Utilized: GPSOBS	ERVATIONS Ver	ical Datum: <u>NAVD 1988</u>	
	or the elevations in items a) thro	ugh h) below.	
	VD 1988 Other/Source:	ad for the DEE	
Datum used for building elevati	ons must be the same as that us	eo Ior ne BFE.	Check the measurement used
a) Top of bottom floor (Includin	g basement, crawlspace, or end	losure floor)	6.48 X feet meters
b) Top of the next higher floor			16.10 🗙 feet 🗌 meters
c) Bottom of the lowest horizor	tal structural member (V Zones	only)	N/A 🗍 feet 🗌 meters
d) Attached garage (top of slal	•		N/A feet meters
	ery or equipment servicing the bi and location in Comments)	uilding	16.10 🗙 feet 🗌 meters
f) Lowest adjacent (finished) g	rade next to building (LAG)		5.90 🔀 feet 🗌 meters
g) Highest adjacent (finished) g	rade next to building (HAG)		6.20 🗙 feet 🗌 meters
	vest elevation of deck or stairs,	including	5.10 🗙 feet 🗌 meters
SECTIO	N D - SURVEYOR, ENGINEE	R. OR ARCHITECT CERT	
	sealed by a land surveyor, engin	neer, or architect authorized orts to interpret the data ava	by law to certify elevation information
Were latitude and longitude in Section	on A provided by a licensed land	surveyor? Xes No	o Check here if attachments,
Certifier's Name KENNETH P. FRANK	License N 36727	lumber	
Title OWNER			
KF2T PROFESSIONAL LAND SUR	/EYORS		
Address P.O. BOX 521			
City COLTS NECK	State New Jerse	ZIP Code ey 07722	
Signature Kennetto P. L	Date 11-08-201	· ·	
Copy all pages of this Elevation Certifi	cate and all attachments for (1) co	ommunity official, (2) insuranc	ce agen∜company, and (3) building owr
Comments (including type of equipm THE ENCLOSURE HAS A CONCRE THERE ARE FIVE SMART VENTS (LOWEST MACHINERY SERVICING ELEVATION OF THE SECOND FLO PROPERTY HAS A DETACHED GA	TE FLOOR WITH THE FINISHE MODEL # 1540-510) IN THE F THE DWELLING IS THE FURN OR 16.10 '. THEAC UNIT IS SI	ED ELEVATION OF 6.48'. OUNDATION. ACE AND THE HOT WATE ET ON AN ELEVATED WOO	ODEN PLATFORM AT 16.28'.
			Form Page 2
EMA Form 086-0-33 (7/15)	Replaces all prev		Form Pand 7

١F Form 086-0-33 (7/15)



FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Form Page 5 of 6

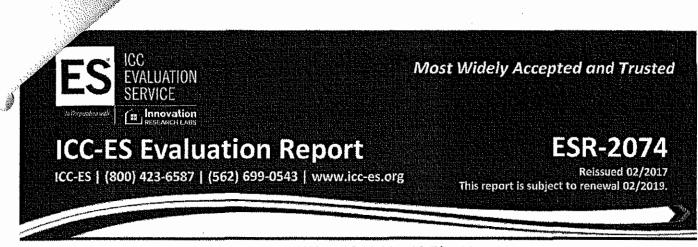
	BUILDING PHOT Continuation		OMB No. 1660-0008 Expiration Date: November 30, 2018
	ne corresponding information f		FOR INSURANCE COMPANY USE
rig Street Address (including Apt., FAIRVIEW PLACE	Unit, Suite, and/or Bldg. No.) or F	P.O. Route and Box No.	Policy Number:
City IEPTUNE TOWNSHIP	State New Jersey	ZIP Code 07753	Company NAIC Number
If submitting more photographs than with: date taken; "Front View" and photographs must show the foundation	"Rear View"; and, if required,	"Right Side View" and	graphs below. Identify all photographs I "Left Side View." When applicable, ents, as indicated in Section A8.
Photo Three Caption RIGHT REAR OF			Glear Photo Three
	Photo Four		
hoto Four Caption DETACHED GARA	AGE		Glear Photo Four
			Form Page 6 of 6

FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

ALL PROPERTY.

÷.



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



Look for the trusted marks of Conformity!

nister,

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.



ICC-ES Evaluation Report

Most Widely Accepted and Trusted.

ESR-2074

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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; #1 540-574; #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)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code 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[®] 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,

A Subsidiary of the International Code Council®

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 ¹/₄-inch-by-¹/₄-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm²) 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 mm²) of net free area to supply natural ventilation. Other FVs recognized in this report do not offer natural ventilation.

4.0 DESIGN AND INSTALLATION

SmartVEN'T[®] 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 and FloodVENT[®] Stacking Model #1540-521 must be

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright @2017 ICC Evaluation Service, LLC, All rights reserved.

74 | Most Widely Accepted and Trusted

Page 2 of 5

310

installed with a minimum of one FV for every 400 square feet (37.2 m^2) 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[®] 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[®] 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.

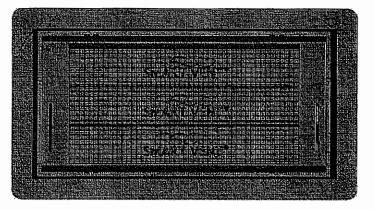
7.0 IDENTIFICATION

The Smart VENT[®] 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).

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

TABLE 1-MODEL SIZES

For SI: 1 inch = 25.4 mm; 1 square foot = m²



Ś

Pa

FIGURE 1-SMART VENT: MODEL 1540-510

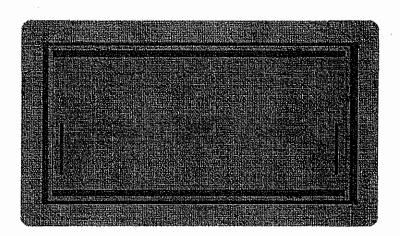


FIGURE 2-SMART VENT MODEL 1540-520

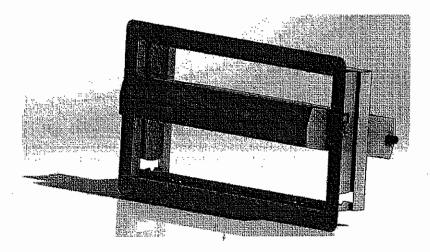


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



Most Widely Accepted and Trusted

ESR-2074 CBC and CRC Supplement

Issued February 2017

Revised November 2017

This report is subject to renewal February 2019.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 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[®] 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*[®] (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 WIIdland–Urban Interface Code[®].

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

ICC-ES Evoluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endor sement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report or as to any product covered by the report.



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

Page 4 of 5



ICC-ES Evaluation Report

Most Widely Accepted and Trusted

ESR-2074 FBC Supplement

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 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.

ICCES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation $\int \sigma$ its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any fluding or other matter in this report, or as to any product covered by the report.



١Į

Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

U.S. DEPAR MENT OF HOMELAND SECURITY Federat Emergency Management Agency National Flood Insurance Program

1 AN AN OMB No. 1660-0008 Expiration Date: November 30, 2018

310

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

	SEC	TION A PROPERT	TY INFOR	MATION			FOR INSUF	RANCE COMPANY L
Gerard M. Fox a	ner's Name nd Kelly Shaur	nessy					Policy Num	ber:
A2, Building Stre Box No. 106 Ivins Road	et Address (in	cluding Apt., Unit, Su	uite, and/o	r Bldg. No.) o	or P.O. Rou	ite and	Company N	AIC Number:
City Neptune	-			State New Jer	sey		ZIP Code 07753	
A3. Property De Township of Nep		nd Block Numbers, T ock 4804	ax Parce	l Number, Le	gal Descrip	otion, etc.)		
A4. Building Use	e (e.g., Resider	ntial, Non-Residential	l, Addition	, Accessory,	etc.) Re	sidential		, ,
A5, Latitude/Lor	gitude: Lat. 4	0° 11' 50.0" N	Long. <u>7</u>	4° 02' 43.9" \	<u>и </u>	orizontal Datu	Jm: 🗌 NAD 1	1927 🔀 NAD 1983
A6. Attach at lea	ast 2 photograp	hs of the building if t	he Certific	ate is being	used to obt	ain flood insu	Irance.	
A7. Building Dia	gram Number	6						
A8. For a buildin	gwith a crawk	space or enclosure(s)):					
a) Square f	ootage of craw	lspace or enclosure(s	S)		1,114 s	q ft		
b) Number o	of permanent fl	ood openings in the c	rawlspace	e or enclosur	e(s) within	1.0 foot abov	e adjacentgra	ade <u>6</u>
c) Total net	c) Total net area of flood openings in A8.b 1,200 sq in							
d) Engineered flood openings? X Yes No								
A9. For a building	g with an attacl	ned garage: N/A						
		nedgarage	N/A	sq f	Ł			
-	-	ood openings in the a	ttached a	arage within	1.0 foot ab	ove adiacent	arade	
		penings in A9.b	J	sc			•	
	d flood openin		No					
	SE		INSURA		MAP (FIR			
B1. NFIP Comm		Community Number		B2. County		1		B3. State
Township of Ner	tune - 340317			Monmouth				New Jersey
	B5. Suffix	B6. FIRM Index Date	Effe	M Panel ective/ vised Date	B8. Floor Zone(s)		Base Flood El (Zone AO, use	levation(s) e Base Flood Depth)
B4. Map/Panel Number			09-25-2		AE	9		
B4. Map/Panel	F	09-25-2009				1		
B4. Map/Panel Number 34025C0333		09-25-2009 Base Flood Elevatior			l ood depth	entered in Ite	m B9:	
B4. Map/Panel Number 34025C0333 B10. Indicate the	e source of the		n (BFE) da	ata or base fi	•	entered in Ite	m B9:	
B4. Map/Panel Number 34025C0333 B10. Indicate the FIS Prot	e source of the	Base Flood Elevation	n (BFE) da rmined [ata or base fi	rce:			
B4. Map/Panel Number 34025C0333 B10. Indicate the FIS Prot B11. Indicate ele	e source of the file 🔀 FIRM vation datum u	Base Flood Elevatior	n (BFE) da rmined [B9:] N	ata or base fi] Other/Sou GVD 1929	rce:	1988 🔲 C)ther/Source:)PA)? □ Yes ⊠ N

FEMA Form 086-0-33 (7/15) DWSA Ref. No. 13-157.65 Replaces all previous editions.

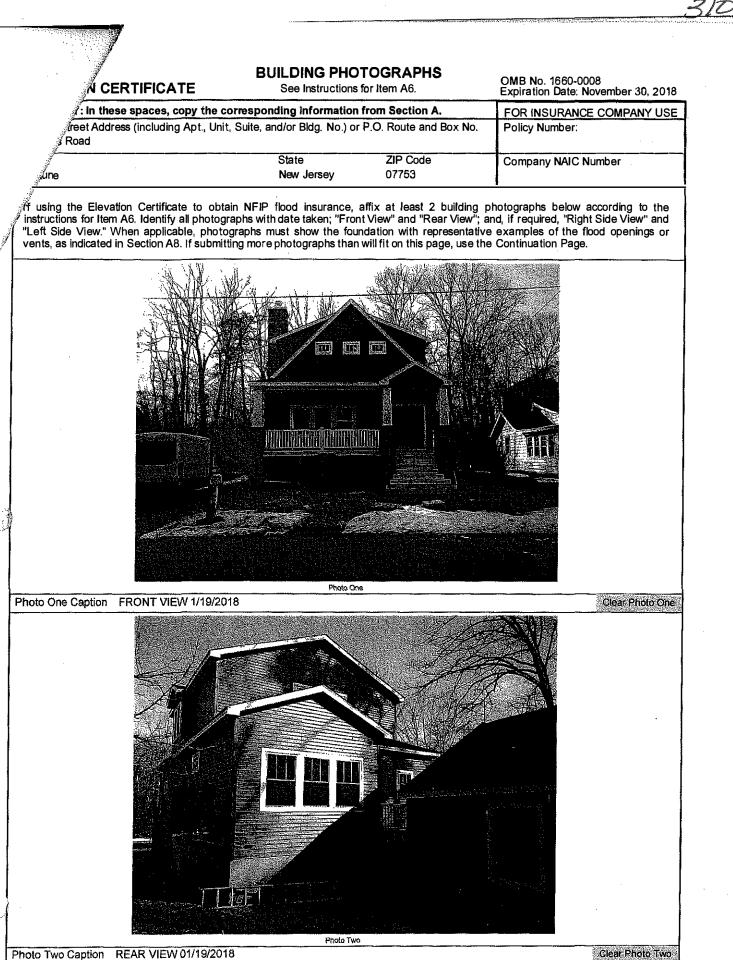
CERTIFICATE				No. 1660-0 tion Date:	November 30, 20
in these spaces, copy the c	corresponding information	from Section A.	FOR	NSURANO	CE COMPANY U
eet Address (including Apt., Un Road	it, Suite, and/or Bldg. No.) or			Number:	
ne	State New Jersey	ZIP Code 07753	Comp	any NAIC	Number
SECTION C - I	BUILDING ELEVATION INF	ORMATION (SUR)	EY REQUIR	ED)	
Building elevations are based on:	Construction Drawings*	🗌 Building Under (Construction*	🗙 Finis	hed Construction
*A new Elevation Certificate will be re Elevations – Zones A1–A30, AE, AH Complete Items C2.a–h below accord Benchmark Utilized: CORS STADK	, A (with BFE), VE, V1–V30, V ding to the building diagram s	V (with BFE), AR, AR	/A, AR/AE, AF n Puerto Rico	R/A1-A30, only, enter	AR/AH, AR/AO. meters.
Indicate elevation datum used for the		h h) below.			
☐ NGVD 1929 ⊠ NAVD 19 Datum used for bullding elevations m		for the BFE.	Ch		easurement used
a) Top of bottom floor (including bas	ement, crawlspace, or enclos	ure floor)	8.2	x feet	meters
b) Top of the next higher floor			14.0	🔀 feet	 meters
c) Bottom of the lowest horizontal str	ructural member (V Zones on		N/A	feet	 meters
d) Attached garage (top of slab)		· / /	N/A	feet	 meters
 e) Lowest elevation of machinery or (Describe type of equipment and I 	equipment servicing the build ocation in Comments)	ling	14.0	🗌 feet	meters
f) Lowest adjacent (finished) grade i	next to building (LAG)	Marine Marine	7.6	🗙 feet	meters
g) Highest adjacent (finished) grade	next to building (HAG)		8.5	🔀 feet	meters
h) Lowest adjacent grade at lowest e structural support	elevation of deck or stairs, inc	luding	7.9	🗙 feet	meters
SECTION D -	SURVEYOR, ENGINEER,	OR ARCHITECT C		DN .	-
s certification is to be signed and seale rtify that the Information on this Certifi ement may be punishable by fine or in	d by a land surveyor, engined cate represents my best effon nprisonment under 18 U.S. C	er, or architect author ts to interpret the data ode. Section 1001.	ized by law to a av <i>allable. I u</i>	certify elev nderstand	vation information that any false
re latitude and longitude in Section A p	•		No 🛛	Check her	e if attachments.
tifier's Name Imas J. Murphy	License Nur 24G S03720				
cipal					
npany Name Smith Associates, LLC					
ress 0 State Route 34					
I Township	State New Jersey	ZIP Code 07753			
lature 7 1	Date	Telephone	Ext.		
Um . UN	01-19-2018	(732) 363-5			
y all pages of this Elevation Certificate a ments (Including type of equipment ar b) 6 "SmartVent" model 1540-510, rate Zone AE per Preliminary Firm 34025C0 BFE 10 per Preliminary Firm 34025C0 e) Air Conditioner on raised platform	nd location, per C2(e), if appli ed @ 200 s.f. each = 1,200 s. 0333G, dated 1/30/2015	cable)	rance agen i/ co	ompany, an	d (3) building own

310

				MB No. 1660- piration Date	November 30, 20
In these spaces, cop	y the corresponding information	n from Section A.		•	ICE COMPANY U
Road	ot., Unit, Suite, and/or Bldg. No.) of	r P.O. Route and Bo		olicy Number:	
ne	State New Jersey	ZIP Code 07753	C	ompany NAIC	Number
SECTION E	- BUILDING ELEVATION INFO FOR ZO NE AO AND ZO I	ORMATION (SUR) NE A (WITHOUT E	/EY NOT RI BFE)	equired)	
or Zones AO and A (without BFE), o omplete Sections A, B,and C. For It nter meters.					
 Provide elevation information for the highest adjacent grade (HAC a) Top of bottom floor (including 	G) and the lowest adjacent grade (I)	opriate boxes to sho LAG).	ow whether th	ne elevation is	above or below
crawlspace, or enclosure) Is b) Top of bottom floor (including		feet	meters	above or	below the HA
crawlspace, or enclosure) is				_	below the LAC
 For Building Diagrams 6–9 with the next higher floor (elevation C the diagrams) of the building is 		_	s 8 and/or 9 (_	2 of Instructions), \Box below the HA
3. Attached garage (top of slab) is	· · · · · · · · · · · · · · · · · · ·		meters	_	below the HA
4. Top of platform of machinery an servicing the building is	d/or equipment	[] feet	meters	🗌 above or	below the HA
5, Zone AO only: If no flood depth floodplain management ordinance	number is available, Is the top of th ce?	he bottom floor elev own. The local offi	ated in accor cial must cer	dance with th tify this inform	e community's ation in Section G.
floodplain management ordinand	number is available, Is the top of the cop o	own. The local offi	cial must cer	tify this inform	e community's ation in Section G.
floodplain management ordinand SECTION F – he property owner or owner's autho ommunity-issued BFE) or Zone AO	ce? Yes No Unknown PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in	own. The local offi ER'S REPRESENT/ es Sections A, B, an	cial must cer ATIVE) CERT	tify this inform	ation in Section G.
floodplain management ordinand SECTION F – he property owner or owner's autho ommunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ad Representative's Name	own. The local offi ER'S REPRESENT/ es Sections A, B, an	cial must cer ATIVE) CERT	tify this inform FIFICATION A (without a f it to the best o	ation in Section G.
floodplain management ordinand SECTION F – The property owner or owner's autho ommunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ es Sections A, B, and n Sections A, B, and	cial must cer ATIVE) CER1 Id E for Zone E are correc	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – he property owner or owner's autho ommunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – The property owner or owner's autho ommunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – he property owner or owner's autho formunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – he property owner or owner's autho formunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – he property owner or owner's autho formunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – he property owner or owner's autho formunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – he property owner or owner's autho formunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
floodplain management ordinand SECTION F – The property owner or owner's autho ommunity-issued BFE) or Zone AO roperty Owner or Owner's Authorize ddress	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.
	ce? Yes No Unkno PROPERTY OWNER (OR OWNE rized representative who complete must sign here. The statements in ed Representative's Name	own. The local offi ER'S REPRESENT/ as Sections A, B, and Sections A, B, and City	cial must cer ATIVE) CERI d E for Zone E are correc State	tify this inform FIFICATION A (without a f it to the best o	ation in Section G. EMA-Issued or f my knowledge.

	N CERTIFICATE	OMB No. 1660-0008 Expiration Date; November 30, 20		
	: In these spaces, copy the			FOR INSURANCE COMPANY US
	freet Address (including Apt., Un Road	No. Policy Number:		
	une	State New Jersey	ZIP Code 07753	Company NAIC Number
1	SE	CTION G - COMMUNITY IN	FORMATION (OPTIO	NAL)
Secti	local official who is authorized by law tions A, B, C (or E), and G of this Eleve J in Items G8–G10. In Puerto Rico onl	ation Certificate. Complete th	e community's floodpl le applicable ltem(s) a	ain management ordinance can complete nd sign below. Check the measurement
G 1.	The information In Section C was engineer, or architect who is aut data in the Comments area belo	horized by law to certify elevation	ation that has been sig ation Information. (Indi	gned and sealed by a licensed surveyor, cate the source and date of the elevation
G2,	A community official completed a or Zone AO.	Section E f ^o r a building locat	ed in Zone A (without a	a FEMA-issued or community-issued BFE
G3. The following information (Items G4–G10) is provided for community floodplain management purposes,				
34. I	Permit Number	G5. Date Permit Issue	d	G6. Date Certificate of Compliance/Occupancy Issued
39.	of the building:	E or (in Zone AO) depth of flooding at the building site:		
ocal	I Official's Name		Title	
	munity Name		Telephone	
Comr	munity Name ature		Telephone Date	
Comr Signa	-	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date	
Comr Signa	ature	d location, per C2(e), if appli	Date cable)	

Ì



FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Form Page 5 of 6

BUILDING PHOTOGRAPHS

	BUILDING PHO I OGRAPHS Continuation Page		OMB No. 1660-0008 Expiration Date: November 30, 2018	
. In these spaces, copy the co	FOR INSURANCE COMPANY USE			
reet Address (including Apt., Unit,	Policy Number:			
Road				
7	State	ZIP Code	Company NAIC Number	
jõne	New Jersey	07753		

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.

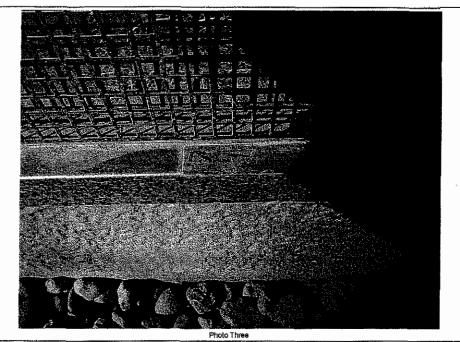


Photo Three Caption TYPICAL FLOOD VENT 1/19/2018

Photo Four

Photo Four Caption

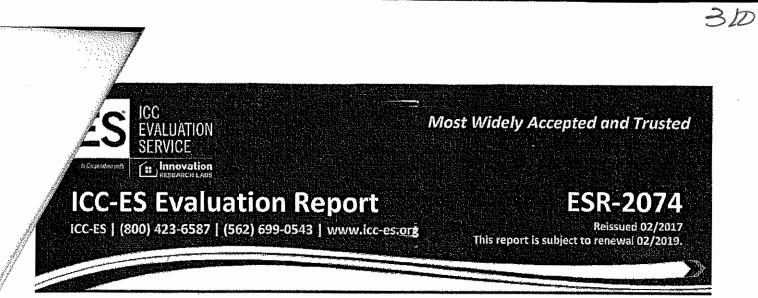
FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Clear Photo Four

Clear Photo Three

Form Page 6 of 6



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

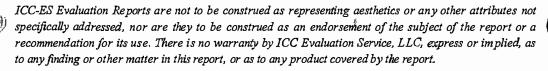
EVALUATION SUBJECT:

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



Look for the trusted marks of Conformity!

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



A Subsidiary of



Copyright [©] 2017 ICC Evaluation Service, LLC. All rights reserved.

ICC-ES Evaluation Report

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

A Subsidiary of the International Code Council®

Most Widely Accepted and Tru

ESR-2074

510

 $\langle \rangle$

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

- Physical operation
- Waterflow

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[®] FVs Internal floats are activated, then plvot 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 plvoting 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 ¹/₄-Inch-by-¹/₄inch (6.35 by 6.35 mm) openings, yleIding 51 square Inches (32 903 mm²) 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 mm²) 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 and FloodVENT[®] StackIng Model #1540-521 must be

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluatian Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright@2017 ICC Evaluation Service, LLC. All rights reserved.

Most Widely Accepted and Trusted

Italled with a minimum of one FV for every 00 square feet (37.2 m²) 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[®] 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.

Page 2 of 5

5.2 The Smart Vent[®] 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[®] 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).

MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)				
1540-520	15 ³ /4" X 7 ³ /4"	200				
1540-510	15 ³ /4" X 7 ³ /4"	200				
1540-524	15 ³ / ₄ " X 7 ³ / ₄ "	200				
1540-514	15 ³ /4" X 7 ³ /4"	200				
1540-570	14" X 8³/₄"	200				
1540-574	14" X 8 ³ /4"	200				
1540-511	16" X 16"	400				
1540-521	16" X 16"	400				
	1540-520 1540-510 1540-524 1540-514 1540-570 1540-574 1540-511	$\begin{array}{c c c c c c c c c c c c c c c c c c c $				

TABLE 1-MODEL SIZES

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

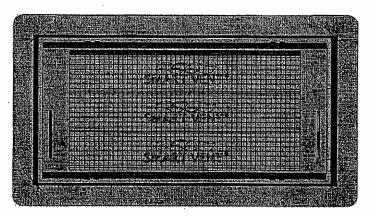


FIGURE 1-SMARTVENT: MODEL 1540-510

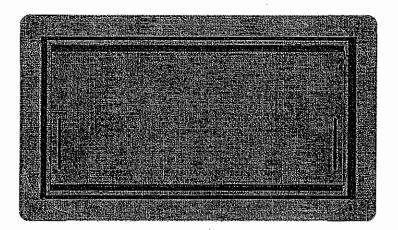


FIGURE 2-SMARTVENT MODEL 1540-520

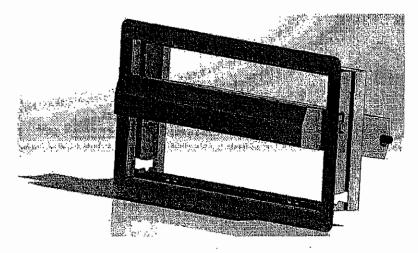


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

310

Contraction of the second

Pa,

UATION

ESR-2074 CBC and CRC Supplement

Issued February 2017

810

Revised November 2017

Most Widely Accepted and Trusted

This report is subject to renewal February 2019.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 0807.1 (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 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[®] 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*[®] (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.

ICC ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

Most Widely Accepted and Trusted

310

ICC-ES Evaluation Report

ESR-2074 FBC Supplement

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 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 BulldIng 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 failing 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.

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warrantly by ICC Evaluation Service, LLC express or implied, as to any fluding or other matter in this report, or as to any product covered by the report.



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency National Flood Insurance Program

OMB No. 1660-0008 Expiration Date: November 30, 2018

310

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

Copy all pages of th					ity official, (2) Insu	Irance agent/compar	ny, and (3) building owne
		TION A - PROPERT	Y INFOR	MATION			RANCE COMPANY US
A1. Building Ow TOM AND MICH						Policy Nun	nber:
Box No.		ncluding Apt., Unit, Sui	ite, and/or	Bldg, No.)	or P.O. Route and	Company	NAIC Number:
114 HILLCREST	AVENUE	in					· · · · · · · · · · · · · · · · · · ·
City NEPTUNE T	WP.			State New Je	rsey	ZIP Code 07753	
A3. Property De LOT 7-10 BLOC		and Block Numbers, Ta Bl. 5317		Number, Le	gal Description, e	etc.)	
A4. Building Use	e (e.g., Reside	ntial, Non-Residential,	Addition,	Accessory,	etc.) RESIDE	NTIAL	
A5. Latitude/Lon	gitude: Lat. 4	0 - 11' - 04.326"	Long. 74	• - 02"-27.43	81" Horizont	al Datum: 🗌 NAD	1927 🗙 NAD 1983
A6. Attach at lea	st 2 photograp	ohs of the building if th	e Certific	ate is being	used to obtain floo	od insurance,	
A7. Building Dia	gram Number	7					
A8. For a buildin	g with a crawl	space or enclosure(s):					
a) Square fo	otage.ofcraw	lspace or enclosure(s))		1032.00 sq ft		
b) Number o	f permanent fl	ood openings in the cr	awlspace	or enclosur	e(s) within 1.0 foc	t above adjacent gr	ade <u>6</u>
c) Total net	area of flood o	penings in A8.b	1:	200.00 sqii	ı		
d) Engineere	ed flood openi	ngs? 🛛 Yes 🗌 I	No				
A9. For a building	with an attac	hed garage:					
a) Square fo	otage of attac	hed garage		N/A sq f			
b) Number o	f permanent flo	ood openings in the at	tached ga	arage within	1.0 foot above ad	jacent grade	_
c) Total net a	area of flood o	penings in A9.b		so	in		
d) Engineere	d flood openir	ngs? [] Yes [] N	No				
	SE	CTION B - FLOOD	INSURA	NCE RATE	MAP (FIRM) IN	ORMATION	
B1. NFIP Commu NEPTUNE TWP.	•	Community Number		B2. County MONMOUT			B3. State New Jersey
B4. Map/Panel Number 34025C0333	B5. Suffix	B6. FIRM Index Date 09-25-2009		ctive/ ised Date	B8. Flood Zone(s) AE	B9. Base Flood E (Zone AO, use	levation(s) Base Flood Depth)
			00 20-2				
		Base Flood Elevation	• •		•	I in Item B9;	
B11. Indicate elev	vation datum u	used for BFE in Item B	9: 🔲 NG	SVD 1929	X NAVD 1988	Other/Source:	
B12. Is the buildi	ng located in a	Coastal Barrier Reso	urces Svs	tem (CBRS) area or Otherwl	se Protected Area (C	PA)? 🗍 Yes 🛛 No
Designation	-		CBRS [, _ , _ , _ ,
MA Form 086-0-3	3 (7/15)	Re	eplaces a	Il previous e	ditions.		Form Page 1 of

	t, Suite, and/or Bldg. No.) or State New Jersey		
TUNE TWP.	t, Suite, and/or Bldg. No.) or State New Jersey	r P.O. Route and Box No ZIP Code	Policy Number:
SECTION C – E	New Jersey		
	UNCELEVATION IN	01100	Company NAIC Number
C1. Building elevations are based on:	SOLDING ELEVATION IN	FORMATION (SURVE	Y REQUIRED)
	Construction Drawings*	🗌 Building Under Co	nstruction* 🔀 Finished Construction
*A new Elevation Certificate will be re	•	• •	
C2. Elevations – Zones A1–A30, AE, AH, Complete Items C2.a–h below accord Benchmark Utilized: <u>GPS OBSERVA</u>	ling to the building diagram	V (with BFE), AR, AR/A, specified in Item A7. In F al Datum: NAVD '88	, AR/AE, AR/A1-A30, AR/AH, AR/AO. Puerto Rico only, enter meters.
Indicate elevation datum used for the	elevations in items a) throu	gh h) below.	
□ NGVD 1929 🔀 NAVD 198			
Datum used for building elevations mu	ist be the same as that use	d for the BFE.	Check the measurement used.
a) Top of bottom floor (including base	ement, crawlspace, or enclo	sure floor)	6.10 X feet meters
b) Top of the next higher floor			14.00 X feet I meters
c) Bottom of the lowest horizontal stru	uctural member (V Zones or	nly)	N/A feet meters
d) Attached garage (top of slab)		· ·	N/A 🗍 feet 🗍 meters
 e) Lowest elevation of machinery or e (Describe type of equipment and logged) 	equipment servicing the buil ocation in Comments)	ding	15.30 🔀 feet 🗌 meters
 Lowest adjacent (finished) grade n 	ext to building (LAG)		5.90 🔀 feet 🗌 meters
g) Highest adjacent (finished) grade r	next to building (HAG)		7.50 X feet meters
 h) Lowest adjacent grade at lowest el structural support 	levation of deck or stairs, In	cluding	5.90 🗙 feet 🗌 meters
SECTION D	SURVEYOR, ENGINEER,	OR ARCHITECT CER	TIFICATION
This certification is to be signed and sealed certify that the information on this Certific statement may be punishable by fine or im	ate represents my best effor	rts to interpret the data a	ed by law to certify elevation information. vailable. I understand that any false
Nere latitude and longitude in Section A pr			No Check here if attachments.
Certifier's Name KENNETH P. FRANK	License Nu PLS 36727	mber	
Title			
Company Name		······································	······································
F2T PROFESSIONAL LAND SURVEYOR	RS		
Address P.O. BOX 521			t de sont co
City COLTS NECK	State New Jersey	ŽIP Code 07722	
ignature	Date 05-04-2017 d all attachments for (1) corr	· · /	
omments (including type of equipment and OWEST MACHINERY SERVICING THE D VIDE X 25' LONG SECTION THAT STEP' LEVATION 8.3'. FLOOD VENTS ARE SM	d location, per C2(e), if appl WELLING IS THE AC UNI S UP (2.2') FROM THE LC	icable) T ON A WOOD PLATFO DWEST ENCLOSURE FI	DRM. THE ENCLOSURE HAS A 10' LOOR MAKING THAT SECTION AT

BUILDING PHOTOGRAPHS

Continuation Page

OMB No. 1660-0008 Expiration Date: November 30, 2018

310

these spaces, cop	these spaces, copy the corresponding information from Section A.					
Address (including A	pt., Unit, Suite, and/or Bldg. No.) or	P.O. Route and Box No	, Policy Number:			
	State	ZIP Code	Company NAIC Number			
JNE TWP.	New Jersey	07753				

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.

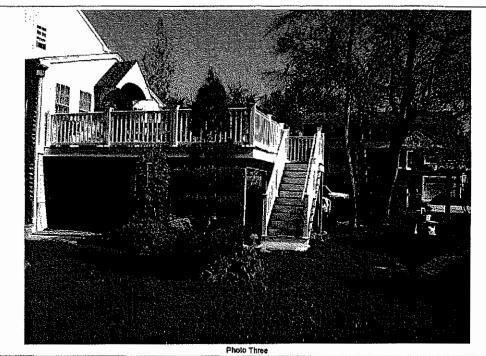
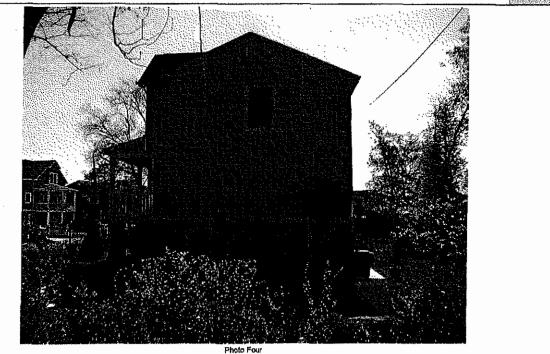


Photo Three Caption LEFT REAR OF HOUSE

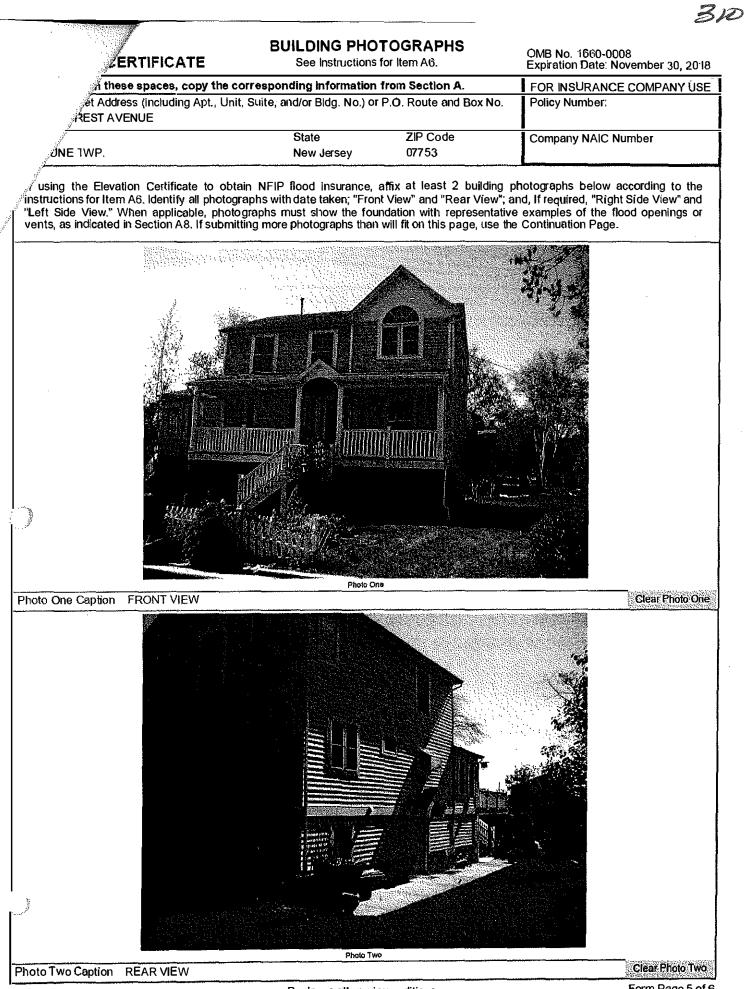
RTIFICATE

Clear Photo Three



Clear Photo Four Form Page 6 of 6

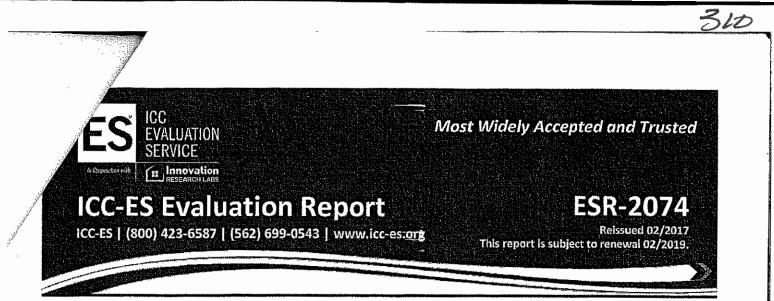
Replaces all previous editions.



FEMA Form 086-0-33 (7/15)

Replaces all previous editions.

Form Page 5 of 6



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

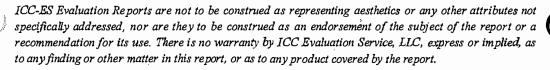
EVALUATION SUBJECT:

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



Look for the trusted marks of Conformity!

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"



A Subsidiary of REPAIDING



Copyright [©] 2017 ICC Evaluation Service, LLC. All rights reserved.

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

A Subsidiary of the International Code Council®

www.icc-es.org | (800) 423-6587 | (562) 699-0543

DIVISION: 08 00 00—OPENINGS Section: 08 95 43—Vents/Foundation Flood Vents

REPORT HOLDER:

ALUATION

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)[†]

[†]The ADIBC is based on the 2009 IBC, 2009 IBC code 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[®] 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 #1540-521 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 ¹/₄-Inch-by-¹/₄-inch (6.35 by 6.35 mm) openings, yielding 51 square inches (32 903 mm²) 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 mm²) 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 and FloodVENT[®] Stacking Model #1540-521 must be

ICC.ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Bualuation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright@ 2017 ICC Evaluation Service, LLC. All rights reserved.



Most Widely Accepted and Trustee

310

74 | Most Widely Accepted and Trusted

Installed with a minimum of one FV for every 400 square feet (37.2 m²) 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[®] 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.

Page 2 of 5

5.2 The Smart Vent[®] 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[®] 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).

MODEL NAME	MODEL NUMBER	MODEL SIZE (In.)	COVERAGE (sq. ft.)
FloodVENT®	1540-520	15 ³ /4" X 7 ³ /4"	200
SmartVEN T [®]	1540-510	15 ³ /4" X 7 ³ /4"	200
FloodVENT [®] Overhead Door	1540-524	15 ³ /4" X 7 ³ /4"	200
SmartVENT® Overhead Door	1540-514	15 ³ /4" X 7 ³ /4"	200
Wood Wall FloodVENT®	1540-570	14" X 8 ³ /4"	200
Wood Wall FloodVENT [®] Overhead Door	1540-574	14" X 8 ³ /4"	200
SmartVENT [®] Stacker	1540-511	16" X 16"	400
FloodVent [®] Stacker	1540-521	16" X 16"	400

TABLE 1-MODEL SIZES

For SI: 1 inch= 25.4 mm; 1 square foot = m²

ا چير ا

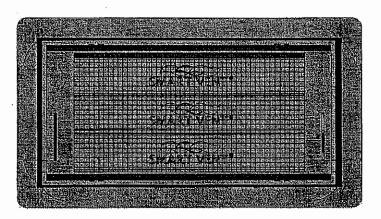


FIGURE 1-SMART VENT: MODEL 1540-510

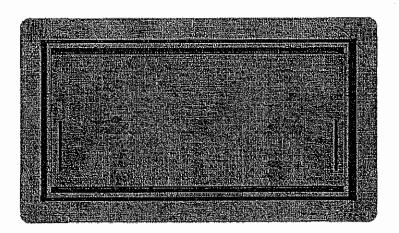


FIGURE 2-SMART VENT MODEL 1540-520

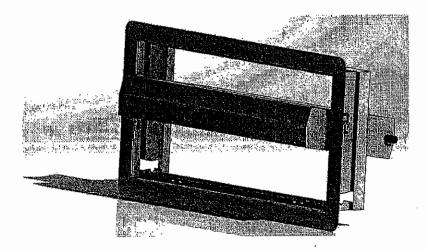


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

310

off real control for the formation of the second for the second second second second second second second second

Most Widely Accepted and Trusted

ESR-2074 CBC and CRC Supplement Issued February 2017

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 <u>www.smartvent.com</u> 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 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 Callfornia Residential Code (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Smart Vent[®] 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*[®] (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.

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, not are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warrantly by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report,



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.

Page 4 of 5

Most Widely Accepted and Trusted

ICC-ES Evaluation Report

ESR-2074 FBC Supplement

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 <u>www.smartvent.com</u> 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 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.

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Copyright@ 2017 ICC Evaluation Service, LLC. All rights reserved,

U.S. DEPARTMENT OF HOMELAND SECURITY Federal Emergency Management Agency

÷

OMB No. 1660-0008 Expiration Date: November 30, 2018

310

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

							FOR INSURANCE COMPANY U		
1	A1. Building Owner's Name JEFFREY & JUDITH TAKACH A2. Building Street Address (including Apt, Unit, Suite, and/or Bldg. No.) or P.O. Route and								
A2, Building Str Box No. 411 S. RIVERS	-	cluding Apt, Unit, Sui	ite, and/o	or Bidg. No.) or P.O	. Route and C	Company I	NAIC Number:		
City				State	Z	IP Code			
NEPTUNE	TOWNSHIP			New Jersey	0	7753			
A3. Property De TAX MAP LOT	• •	nd Block Numbers, Ta 409	ax Parce	el Number, Legal De	escription, etc.)				
A4. Building Use	e (e.g., Residen	tial, Non-Residential,	Addition	n, Accesso ry, etc .)	RESIDENTIAL				
A5. Latitude/Lor	gitude: Lat. N	40 11 10.00	Long. W	V 74 02 35.95	Horizontal Datum:		1927 🔀 NAD 1983		
A6. Atlach at lea	ast 2 photograp	hs of the building if th	e Certific	ate is being used t	o obtain flood insuran	ice.			
A7. Building Dia	gram Number	7							
	- ,	pace or enclosure(s);							
	-	space or enclosure(s)		605 sq ft					
	-				vithin 1.0 foot above a	diacenter	ade 4		
						ujacent gi	ade 4		
,	•	·		sqln					
d) Engineer	ad flood openin								
		gs? 🛛 Yes 🗌 N	No						
A9. For a building			No						
A9. For a buildin		ned garage:	_	sq ft					
A9. For a buildin a) Square fo	g with an attach botage of attach	ned garage: ed garage400	D	•	ot above adjacent gra	ade	2		
A9. For a buildin a) Square fo b) Number o	g with an attach botage of attach of permanent flo	ned garage: ed garage400 bod openings in the at	0 tta ched g	jarage within 1.0 fo	ot above adja cen t gra	ade	2		
A9. For a buildin a) Square fo b) Number c c) Total net	g with an attach ootage of attach of permanent flo area of flood op	ned garage: ed garage400 bod openings in the at renings in A9.b	0 ttached g 256	•	ot above adjacent gra	ade	2		
A9. For a buildin a) Square fo b) Number c c) Total net	g with an attach botage of attach of permanent flo	ned garage: ed garage400 bod openings in the at renings in A9.b	0 tta ched g	jarage within 1.0 fo	ot above adjacent gra	ade	2		
A9. For a buildin a) Square fo b) Number c c) Total net	g with an attach botage of attach of permanent flo area of flood op ed flood openin	ned garage: 19 garage400 19 pod openings in the at 19 nenings in A9.b 19 gs? X Yes 1	0 ttached g 256 No	jarage within 1.0 fo sq in	ot above adjacent gra (FIRM) INFORMAT		2		
A9. For a buildin a) Square fo b) Number c c) Total net d) Engineero	g with an attach botage of attach of permanent flo area of flood op ad flood openin SE unity Name & Co	ned garage: ed garage 400 bod openings in the at enings in A9.b gs? X Yes 1 CTION B - FLOOD I community Number	0 ttached g 256 No	jarage within 1.0 fo sq in	(FIRM) INFORMAT		2 B3. State New Jersey		
A9. For a buildin a) Square fo b) Number o c) Total net d) Engineero B1. NFIP Commu	g with an attach botage of attach of permanent flo area of flood op ad flood openin SE unity Name & Co	ned garage: ed garage 400 bod openings in the at enings in A9.b gs? X Yes 1 CTION B - FLOOD I community Number	0 ttached g 256 No INSURA B7. FI Ef	arage within 1.0 fo sq in NCE RATE MAP B2. County Name MONMOUTH IRM Panel fective/ evised Date	(FIRM) INFORMAT	ION B9. Bas (Zo	B3. State New Jersey		
A9. For a buildin a) Square fo b) Number o c) Total net d) Engineero B1. NFIP Commu NEPTUNE TOW B4. Map/Panel	g with an attach botage of attach of permanent flo area of flood op ad flood openin SE unity Name & Co NSHIP 3403	and garage: and garage 400 bod openings in the attraction openings in A9.b gs? ⊠ Yes 1 CTION B – FLOOD I community Number 317 B6. FIRM Index	0 ttached g 256 No INSURA	arage within 1.0 fo sq in NCE RATE MAP B2. County Name MONMOUTH IRM Panel fective/ evised Date	(FIRM) INFORMAT	ION B9. Bas (Zo	B3. State New Jersey Se Flood Elevation(s) ne AO, use Base		
A9. For a buildin a) Square fo b) Number o c) Total net d) Engineero B1. NFIP Commu NEPTUNE TOW B4. Map/Panel Number 34025C0341 B10. Indicate the ☐ FIS Prof	g with an attach potage of attach of permanent flo area of flood op ad flood opening SE unity Name & Co NSHIP 3403 B5. Suffix F source of the E ile \boxtimes FIRM [and garage: and garage400 bod openings in the at- anings in A9.b gs? ⊠ Yes I CTION B – FLOOD I CTION B – FLOOD I community Number 317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation Community Detern	D ttached g 256 No INSURA B7. FI Ef Re 09/25/ (BFE) da mined	Arage within 1.0 for sq in NCE RATE MAP B2. County Name MONMOUTH RM Panel fective/ evised Date /2009 ata or base flood de Other;/Source:	(FIRM) INFORMAT B8. Flood Zone(s) AE pth entered in Item B	B9. Bas (Zo Floo 9	B3. State New Jersey Se Flood Elevation(s) ne AO, use Base od Depth)		
A9. For a buildin a) Square fo b) Number o c) Total net d) Engineero B1. NFIP Commu NEPTUNE TOW B4. Map/Panel Number 34025C0341 B10. Indicate the B11. Indicate ele	g with an attach botage of attach of permanent flo area of flood op ad flood openin SE unity Name & Co NSHIP 3403 B5. Suffix F source of the E ile X FIRM [vation datum us	and garage: and garage 400 bod openings in the attraction and the second openings in A9.b gs? ⊠ Yes 1 CTION B - FLOOD I community Number 317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation ☐ Community Deterning Second FE in Item B	0	Arage within 1.0 for sq in NCE RATE MAP B2. County Name MONMOUTH RM Panel frective/ evised Date /2009 ata or base flood de Other:/Source: GVD 1929 🔀 NA	(FIRM) INFORMAT B8. Flood Zone(s) AE pth entered in Item B	B9. Bas (Zo Floo 9	B3. State New Jersey Se Flood Elevation(s) ne AO, use Base od Depth)		
A9. For a buildin a) Square fo b) Number o c) Total net d) Engineero B1. NFIP Commu NEPTUNE TOW B4. Map/Panel Number 34025C0341 B10. Indicate the B11. Indicate ele	g with an attach potage of attach of permanent flo area of flood op ed flood opening SE unity Name & Co NSHIP 3403 B5. Suffix F source of the E ile \boxtimes FIRM [vation datum us ng located in a	aed garage: aed garage400 bod openings in the at aenings in A9.b gs? ⊠ Yes I CTION B – FLOOD I CTION B – FLOOD I CTION B – FLOOD I CTION B – FLOOD I COMMUNITY NUMBER 317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation Community Detern sed for BFE in Item B Coastal Barrier Reso	0	Arage within 1.0 for sq in NCE RATE MAP B2. County Name MONMOUTH B2. County Name MONMOUTH RM Panel fective/ evised Date /2009 ata or base flood de Other;/Source: GVD 1929 🔀 NA stem (CBRS) area	(FIRM) INFORMAT	B9. Bas (Zo Floo 9	B3. State New Jersey Se Flood Elevation(s) ne AO, use Base od Depth)		

.

CERTIFICATE			OMB No. 1660-0008 Expiration Date: November 30, 2018
r: in these spaces, copy	the corresponding Information from Se	ction A.	FOR INSURANCE COMPANY USE
1.1.4	, Unit, Suite, and/or Bldg. No.) or P.O. Ro		Policy Number:
ity		' Code	Company NAIC Number
EPTUNE TOWNSHIP	New Jersey 077	753	
SECTION	C - BUILDING ELEVATION INFORMA	TION (SURVEY R	EQUIRED)
	be required when construction of the build	• •	
C2. Elevations – Zones A1–A30, AE, Complete Items C2.a–h below a Benchmark Utilized: R.M. # 28 (, AH, A (with BFE), VE, V1–V30, V (with E coording to the building diagram specified DLD FIRM Vertical Datum	in Item A7. In Puer	/̈AE, AR/A1⊷A30, AR/AH, AR/AO. to Rico only, enter meters.
Indicate elevation datum used for	r the elevations in items a) through h) belo		· · · · · · · · · · · · · · · · · · ·
🔲 NGVD 1929 🔀 NAVI	D 1988 Other/Source:		
Datum used for building elevation	ns must be the same as that used for the	BFE.	Check the measurement used.
a) Top of bottom floor (including	basement, crawlspace, or enclosure floor	r) 8,3	X feet neters
b) Top of the next higher floor		16.8	X feet _ meters
	al structural member (V Zones only)	N/A.	X feet _ meters
d) Attached garage (top of slab)		8,3	X feet meters
e) Lowest elevation of machiner (Describe type of equipment a	y or equipment servicing the building and location in Comments)	16, 5	X feet meters
f) Lowest adjacent (finished) gra	ade next to building (LAG)	<u> </u>	X feet 🗌 meters
g) Highest adjacent (finished) gr	ade next to building (HAG)	9, 5	
 h) Lowest adjacent grade at low structural support 	est elevation of deck or stairs, including	<u> </u>	X feet 🗌 meters
SECTION	D - SURVEYOR, ENGINEER, OR AR	CHITECT CERTIF	ICATION
Certify that the information on this Ce	ealed by a land surveyor, engineer, or arc ortificate represents my best efforts to Inte- or imprisonment under 18 U.S. Code, Sec	rpret the data availa	law to certify elevation information. able. I understand that any false
Nere latitude and longitude in Sectior	A provided by a licensed land surveyor?	🛛 Yes 🗌 No	Check here if attachments.
Certifier's Name PAUL K. LYNCH LS	License Number GS 35855		
itte			
AND SURVEYOR			Place
Company Name PAUL K. LYNCH LS			- Seal Here
Address P.O. BOX 1453	State	ZIP Code	
City VALL	State New Jersey	07719	
ignature autor	Date 08/11/2017	Telephone (732) 681-4035	
omments (including type of equipments, and the second seco	ate and all attachments for (1) community of the and location, per C2(e), if applicable) VE IS 1005 SF, OF THAT GARAGE ARE/ ART" VENT MODEL 1540-510 INSTALLE OVERAGE 800 SF, GARAGE AREA COV PLATFORM BESIDE STRUCTURE	A APPROX, 400 SF	ER CERTIFIES EACH ONE

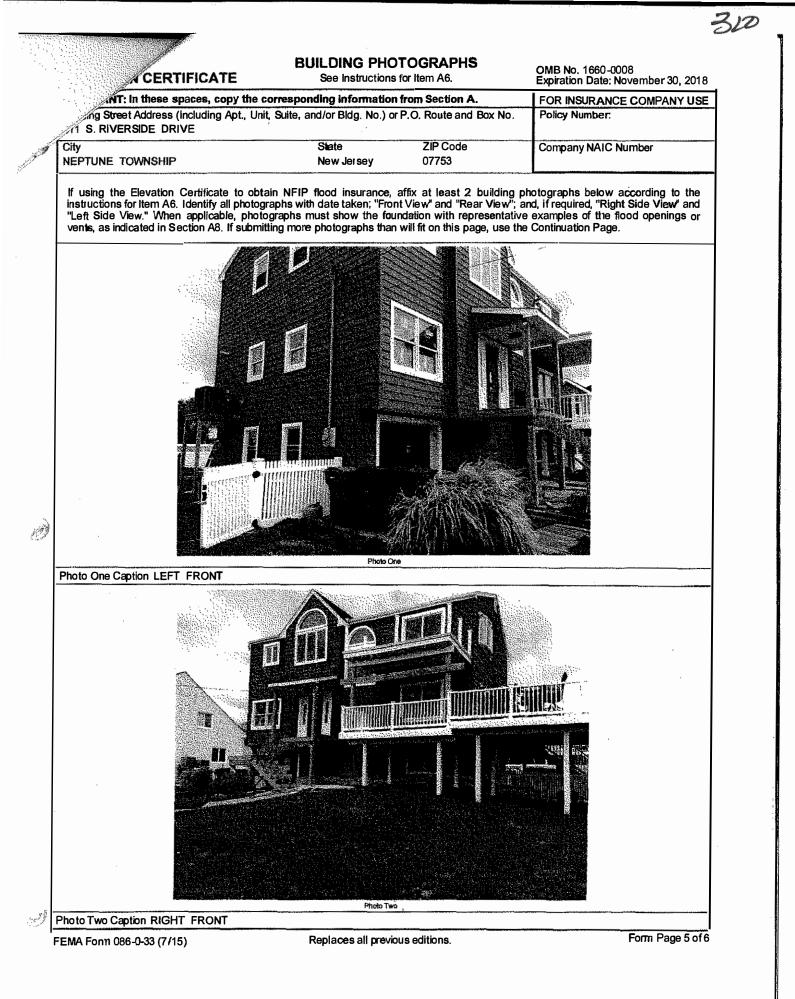
•.

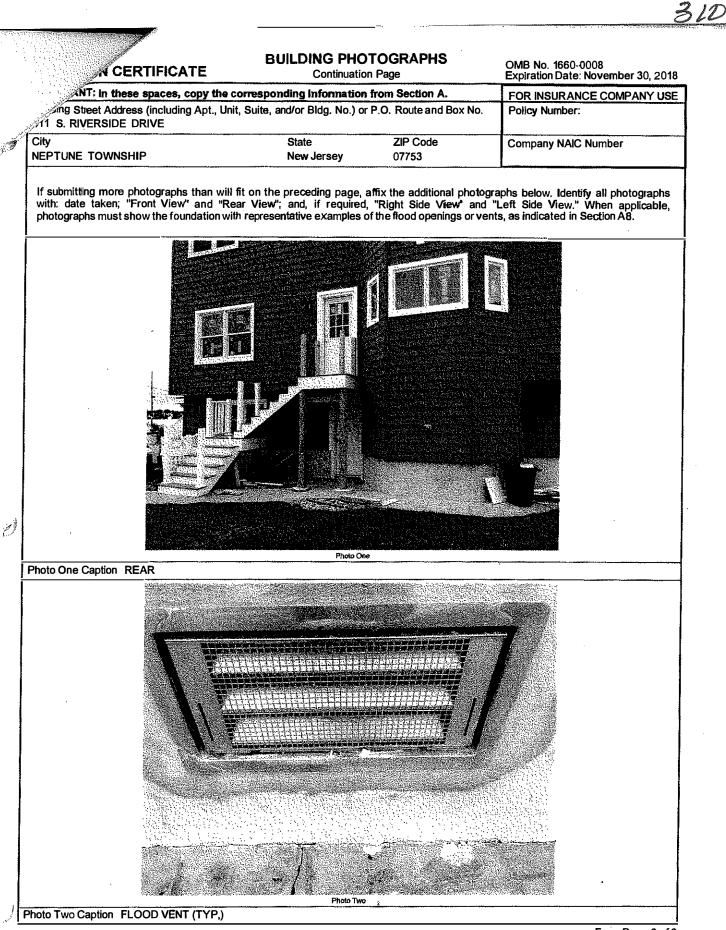
CERTIFICATE			OMB No. 16	
		from Cootton A	· · · · · · · · · · · · · · · · · · ·	ate: November 30, 2018
StreetAddress (including Apt., Un S. RIVERSIDE DRIVE	· •			ANCE COMPANY USE
City NEPTUNE TOWNSHIP	State New Jersey	ZIP Code 07753	Company N	AIC Number
SECTION E – BU	ILDING ELEVATION INFO FOR ZONE AO AND ZON).
For Zones AO and A (without BFE), complete Sections A, B,and C. For Items E enter meters.	ete Items E1–E5. If the Certif 1–E4, use natural grade, if a	ficate Is Intended to s vailable. Check the n	upport a LOMA or LC neasurement used. Ir	MR-F request, Puerto Rico only,
E1. Provide elevation information for the for the highest adjacent grade (HAG) and a) Top of bottom floor (including base	the lowest adjacent grade (L			
crawlspace, or enclosure) ls b) Top of bottom floor (including base crawlspace, or enclosure) is	ment,	[] feet [e or \square below the HAG.
E2. For Building Diagrams 6–9 with penna the next higher floor (elevation C2.b in	nent flood openings provided			
the diagrams) of the building is E3. Attached garage (top of slab) is		[] feet [or \square below the HAG.
E4. Top of platform of machinery and/or ea	quipment	feet [or Delow the HAG.
servicing the building is				
5. Zone AO only: If no flood depth number floodplain management ordinance?	Yes No Únkno	own. The local officia	al must certify this info	ormation in Section G.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F - PROF	Yes No Unkno	own. The local officiant R'S REPRESENTAT s Sections A, B, and	al must certify this info IVE) CERTIFICATIO E for Zone A {without	a FEMA-Issued or
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must s	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in	own. The local officiant R'S REPRESENTAT s Sections A, B, and	al must certify this info IVE) CERTIFICATIO E for Zone A {without	a FEMA-Issued or
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must s Property Owner or Owner's Authorized Rep	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiant R'S REPRESENTAT s Sections A, B, and	al must certify this info IVE) CERTIFICATIO E for Zone A {without	a FEMA-Issued or
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F - PROP SECTION F - PROP The property owner or owner's authorized r community-issued BFE) or Zone AO must s Property Owner or Owner's Authorized Rep Address	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiant R'S REPRESENTAT s Sections A, B, and Sections A, B, and E	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the bes	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must service and the service	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must service and the service	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must service and the service	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROJ The property owner or owner's authorized r community-issued BFE) or Zone AO must Property Owner or Owner's Authorized Rep Address Signature	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must service and the service	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROJ The property owner or owner's authorized r community-issued BFE) or Zone AO must Property Owner or Owner's Authorized Rep Address Signature	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [SECTION F PROF SECTION F PROF The property owner or owner's authorized r community-issued BFE) or Zone AO must service and the service	Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.
E5. Zone AO only: If no flood depth number floodplain management ordinance? [Yes No Unkno PERTY OWNER (OR OWNE representative who complete sign here. The statements in presentative's Name	own. The local officiants of the local official sections A, B, and E city	al must certify this info IVE) CERTIFICATIO E for Zone A (without are correct to the best State	a FEMA-Issued or st of my knowledge.

f: In these spaces, copy			
	the corresponding information from		FOR INSURANCE COMPANY US
S. RIVERSIDE DRIVE	t., Unit, Suite, and/or Bldg. No.) or P.O.		Policy Number:
City NEPTUNE TOWNSHIP		ZIP Code 07753	Company NAIC Number
	SECTION G - COMMUNITY INFORM	ATION (OPTIONAL)	
Sections A, B, C (or E), and G of this used in Items G8-G10. In Puerto Ricc	C was taken from other documentation s authorized by law to certify elevation i	licable item(s) and sig hat has been signed a	n below. Check the measurement
G2. A community official comple or Zone AO.	ted Section E for a building located in 2	oneA (without a FEN	Aissued or community-issued BFE
G3. The following information (It	ems G4-G10) is provided for communi	y floodplain managen	nent purposes,
G4. Permit Number	G5. Date Permit Issued		Date Certificate of Compliance/Occupancy Issued
G10. Community's design flood elevat	oding at the building site:		t meters Datum t meters Datum
Local Official's Name	Title		
	Title Telep	hone	
Communily Name		hone	
Communily Name Signature	Telep	hone	
Local Official's Name Community Name Signature Comments (including type of equipmer	Telep	hone	
Communily Name Signature	Telep	hone	
Communily Name Signature	Telep	hone	
Communily Name Signature	Telep	hone	
Communily Name Signature	Telep	hone	

310

.

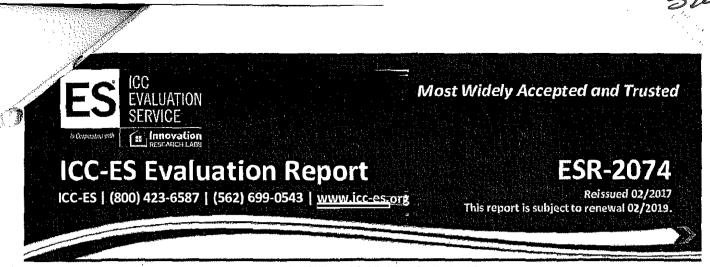




FEMA Fonn 086-0-33 (7/15)

Replaces all previous editions.

Fonn Page 6 of 6



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



Look for the trusted marks of Conformity!

"2014 Recipient of Prestigious Western States Seismic Policy Council (WSSPC) Award in Excellence"

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endor sement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

A Subsidiary of



Copyright [©] 2017 ICC Evaluation Service, LLC. All rights reserved.

VALUATION (= Jone volien

Most Widely Accepted and Trus.

ESR-2074

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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)[†]

[†]The ADIBC is based on the 2009 IBC, 2009 IBC code sections referenced In this report are the same sections in the ADIBC.

Properties evaluated:

- Physical operation
- Waterflow
- 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[®] FVs Internal floats are activated, then plvot 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, Reissued February 2017 Revised November 2017 This report is subject to renewal February 2019.

A Subsidiary of the International Code Council®

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 $^{1}/_{4}$ -inch-by- $^{1}/_{4}$ -inch (6.35 by 6.35 mm) openings, yielding 51 square Inches (32 903 mm²) 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 mm²) 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 and FloodVENT[®] Stacking Model #1540-521 must be

ICCES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nar are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report,



Copyright @ 2017 ICC Evaluation Service, LLC, All rights reserved.

4 Most Widely Accepted and Trusted

installed with a minimum of one FV for every 400 square feet (37.2 m²) 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[®] FVs described in this report comply with, or are sultable 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.

Page 2 of 5

5.2 The Smart Vent[®] 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.

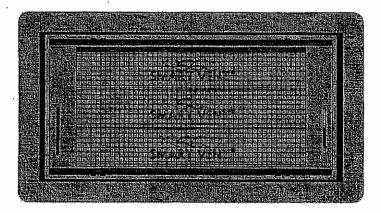
7.0 IDENTIFICATION

The Smart VENT[®] 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).

MODEL NAME	MODEL NUMBER	MODEL SIZE (in.)	COVERAGE (sq. ft.)
FloodVEN1®	1540-520	15 ³ /4" X 7 ³ /4"	200
SmartVENT [®]	1540-510	15 ³ /₄" X 7 ³ /₄"	200
FloodVENT [®] Overhead Door	1540-524	15 ³ /4" × 7 ³ /4"	200
SmartVENT [®] Overhead Door	1540-514	15 ³ /4" X 7 ³ /4"	200 .
. Wood Wall FloodVENT®	1540-570	14" X 8 ³ /₄"	200
Wood Wall FloodVENT® Overhead Door	1540-574	14" X 8 ³ /4"	200
SmartVENT [®] Stacker	1540-511	16" X 16"	400
FloodVent [®] Stacker	1540-521	16" X 16"	400

TABLE 1--MODEL SIZES

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



310

1

FIGURE 1-SMART VENT: MODEL 1540-510

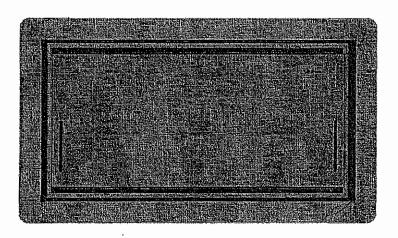


FIGURE 2-SMART VENT MODEL 1540-520

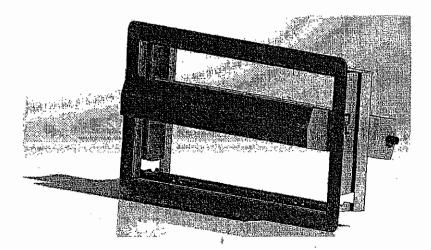


FIGURE 3--SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN

Most Widely Accepted and Trusted

ICC-ES Evaluation Report

ESR-2074 CBC and CRC Supplement

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

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 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[®] 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*[®] (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.

ICCES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no worranty by ICC Evaluation Service, LLC, espress or implied, as to ony finding or other matter in this report, or as to any product covered by the report.



Copyright © 2017 ICC Evaluation Service, LLC. All rights reserved.



Most Widely Accepted and Trusted

510

100

ESR-2074 FBC Supplement

Reissued February 2017 Revised November 2017

This report is subject to renewal February 2019.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

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 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Smart Vent[®] Automatic Foundation Flocd 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 failing 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, relssued February 2017 and revised November 2017.

ICC-ES Evaluation Reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



Page 5 of 5

Copyright@ 2017 ICC Evaluation Service, LLC. All rights reserved.