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

| OMB No. 1 | 1660-0 | 0008 | | |
|------------|--------|----------|-----|------|
| Expiration | Date: | November | 30, | 2018 |

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

| Copy all pages of this E | levation Certificate and all attachments | for (1) c | ommunity official | (2) insurance a | ident/company | and (3) |) huilding owner |
|--------------------------|--|-------------|-------------------|-----------------|---------------|---------|------------------|
| | | | | | | | |

| SEC | TION A - PROPERTY | INFOR | MATION | <u> </u> | FOR INSU | RANCE COMPANY USE |
|--|--------------------------|-------------|-----------------------------------|----------------------|----------------------|-------------------------------------|
| A1. Building Owner's Name Vito Gadelleta | 4mm | | | • | Policy Num | iber: |
| A2. Building Street Address (inc Box No. 114 Beverly Way | cluding Apt., Unit, Suit | e, and/o | r Bldg. No.) c | r P.O. Route and | d Company N | NAIC Number: |
| City Neptune Township | | | State New Jer | sey | ZIP Code 07753 | |
| A3. Property Description (Lot an Lot 11-13, Block 475 | nd Block Numbers, Ta | ax Parcel | Number, Le | gál Description, e | etc.) | |
| A4. Building Use (e.g., Residen | tial, Non-Residential, | Addition | , Accessory, | etc.) Residen | tial | |
| A5. Latitude/Longitude: Lat. 40 | 0.19422 | Long, 74 | 4.04077 | Horizon | tal Datum: 🔲 NAD | 1927 🔀 NAD 1983 |
| A6. Attach at least 2 photograp A7. Building Diagram Number A8. For a building with a crawls | 7 | | ate is being i | ised to obtain flo | od insurance. | |
| a) Square footage of crawl | space or enclosure(s) | | | 988.00 sq ft | | |
| b) Number of permanent flo | ood openings in the cr | awlspace | e or enclosur | e(s) within 1.0 fo | ot above adjacent gr | ade 5 |
| c) Total net area of flood or | penings in A8.b | 1 | 00.000 sq ir | 1 | | |
| d) Engineered flood openin | igs? 🛛 Yes 🗌 N | ю | | | | |
| A9. For a building with an attach | ed garage: | | | | | |
| a) Square footage of attach | ed garage | | 416.00 sq f | | | |
| b) Number of permanent flo | ood openings in the at | tached g | arage within | 1.0 foot above a | djacent grade 3 | |
| c) Total net area of flood op | enings in A9.b | | 600.00 sc | in | | |
| d) Engineered flood openin | gs? 🖂 Yes 🗌 N | lo | | · | | |
| SE | CTION B - FLOOD | INSURA | NCE RATE | MAP (FIRM) IN | FORMATION | |
| B1. NFIP Community Name & C Neptune Township - 340317 | community Number | | B2. County Monmouth | | | B3. State New Jersey |
| B4. Map/Panel Number 34025C0333 F | B6. FIRM Index Date | Effe Rev | RM Panel ective/ vised Date | B8. Flood Zone(s) | | Elevation(s) e Base Flood Depth) |
| 34025C0333 F | 09-25-2009 | 09-25-2 | 2009 | AE | 9 | |
| B10. Indicate the source of the ☐ FIS Profile ⊠ FIRM | Community Deter | mined [|] Other/Soι | rce: | | |
| B11. Indicate elevation datum u | sed for BFE in Item B | 9: 🔲 N | GVD 1929 | 🗙 NAVD 1988 | Other/Source: | |
| B12. Is the building located in a | Coastal Barrier Reso | urces Sy | stem (CBRS |) area or Otherw | ise Protected Area (| OPA)? 🗌 Yes 🔀 No |
| Designation Date: | | CBRS | OPA | | | |
| FEMA Form 086-0-33 (7/15) | R | eplaces : | all previous e | ditions. | | Form Page 1 of 6 |

| ATANT: In these spaces, copy the c | | | FOR INSURANCE COMPANY |
|--|---|--|---|
| مُرَّسُ ading Street Address (including Apt., Uni 14 Beverly Way | it, Suite, and/or Bldg. No.) or P.O. I | Route and Box No. | Policy Number: |
| City Veptune Township | | IP Code 7753 | Company NAIC Number |
| | | · · · · · · · · · · · · · · · · · · · | |
| | | Building Under Constr | |
| *A new Elevation Certificate will be re | | • | |
| C2. Elevations – Zones A1–A30, AE, AH, Complete Items C2.a–h below accord | ding to the building diagram specifi | ed in Ítem A7. In Pue | |
| Benchmark Utilized: GPS Observatio | | um: NAVD88 | |
| Indicate elevation datum used for the | · • | elow. | |
| ☐ NGVD 1929 🔀 NAVD 19 Datum used for building elevations m | | e BFF | |
| | | | Check the measurement use |
| a) Top of bottom floor (including bas | ement, crawlspace, or enclosure fl | oor) | 5.4 X feet meters |
| b) Top of the next higher floor | | | 14.5 X feet meters |
| c) Bottom of the lowest horizontal str | ructural member (V Zones only) | ······································ | N.A. feet meters |
| d) Attached garage (top of slab) | | | 5.4 X feet meters |
| e) Lowest elevation of machinery or (Describe type of equipment and I | equipment servicing the building location in Comments) | | 12.0 X feet meters |
| f) Lowest adjacent (finished) grade i | next to building (LAG) | | 5.0 × feet meters |
| g) Highest adjacent (finished) grade | next to building (HAG) | · · · · · · · · · · · · · · · · · · · | 5.5 X feet meters |
| h) Lowest adjacent grade at lowest e structural support | elevation of deck or stairs, including | } | 5.0 [] feet [] meters |
| SECTION D | - SURVEYOR, ENGINEER, OR | RCHITECT CERTI | FICATION |
| This certification is to be signed and seale I certify that the information on this Certific statement may be punishable by fine or in | cate represents my best efforts to i | nterpret the data avai | by law to certify elevation informati lable. I understand that any false |
| Were latitude and longitude in Section A p | provided by a licensed land survey | or? 🛛 Yes 🗌 No | Check here if attachment |
| Certifier's Name Kenneth P. Frank | License Number NJ 36727 | | |
| Title | | | · · · · · · · · · · · · · · · · |
| Owner/President | | | Place |
| Company Name KF2T Professional Land Surveyors | | | Saal |
| Address | | | |
| P.O. Box 521 | | | Here |
| City Colts Neck | State New Jersey | ZIP Code 07722 | |
| Signature | Date | Telephone | Ext. |
| Kenneth P: Kum | 08-26-2019 | (908) 692-7853 | |
| Copy all pages of this Elevation Certificate a | and all attachments for (1) communit | y official, (2) insurance | agent/company, and (3) building o |
| Comments (including type of equipment ar (8) Eight Smart Vents Installed Model 1540 Outside air condition unit on raised platforr Bottom of Solar Electric Meter at Elevation | 0-510 (Cert. to cover 200 s.f. each) m at elevation =12.0' | | |

,

| Zones AO and A (without BFE), complete Items E1–E5. If the plete Sections A, B,and C. For Items E1–E4, use natural gra r meters. Provide elevation information for the following and check the the highest adjacent grade (HAG) and the lowest adjacent grade a) Top of bottom floor (including basement, crawlspace, or enclosure) is | ZIP Code ey 07753 NINFORMATION (SI ID ZONE A (WITHOL ee Certificate is intende ade, if available. Check e appropriate boxes to grade (LAG). | d Box No. | Policy Number: Company NAIC EQUIRED) OMA or LOMR- ent used. In Pue the elevation is a | -F request, erto Rico only, |
|--|--|--|--|---|
| Interform New Jerse SECTION E – BUILDING ELEVATION FOR ZONE AO AN Zones AO and A (without BFE), complete Items E1–E5. If the plete Sections A, B,and C. For Items E1–E4, use natural graph r meters. Provide elevation information for the following and check the the highest adjacent grade (HAG) and the lowest adjacent grade a) Top of bottom floor (including basement, crawlspace, or enclosure) is | ey 07753 N INFORMATION (SID ZONE A (WITHOU) De Certificate is intende ade, if available. Check e appropriate boxes to grade (LAG). f provided in Section A I | URVEY NOT R IT BFE) ed to support a L the measurement show whether t seet meters feet meters | EQUIRED) OMA or LOMR- ent used. In Pue the elevation is a above or | F request, erto Rico only, above or below |
| FOR ZONE AO AN Zones AO and A (without BFE), complete Items E1–E5. If the plete Sections A, B,and C. For Items E1–E4, use natural gra r meters. Provide elevation information for the following and check the the highest adjacent grade (HAG) and the lowest adjacent grade a) Top of bottom floor (including basement, crawlspace, or enclosure) is | ID ZONE A (WITHOL be Certificate is intende ade, if available. Check e appropriate boxes to grade (LAG). | tt BFE) d to support a L the measurem show whether t eet meters eet meters | OMA or LOMR- ent used. In Pue he elevation is a above or | erto Rico only, above or below |
| plete Sections A, B,and C. For Items E1–E4, use natural grar meters. Provide elevation information for the following and check the highest adjacent grade (HAG) and the lowest adjacent grade a) Top of bottom floor (including basement, crawlspace, or enclosure) is b) Top of bottom floor (including basement, crawlspace, or enclosure) is For Building Diagrams 6–9 with permanent flood openings pathe next higher floor (elevation C2.b in the diagrams) of the building is Attached garage (top of slab) is | ade, if available. Check e appropriate boxes to grade (LAG). f f f provided in Section A I | the measurem show whether t eet meters eet meters | ent used. In Pue he elevation is a above or | erto Rico only, above or below |
| the highest adjacent grade (HAG) and the lowest adjacent grade adjacent grade (HAG) and the lowest adjacent grade adj | grade (LAG). | eet meters | above or | |
| b) Top of bottom floor (including basement, crawlspace, or enclosure) is For Building Diagrams 6–9 with permanent flood openings in the next higher floor (elevation C2.b in the diagrams) of the building is Attached garage (top of slab) is | provided in Section A I | eet meters | | below the H. |
| For Building Diagrams 6–9 with permanent flood openings p the next higher floor (elevation C2.b in the diagrams) of the building is | provided in Section A I | | | below the LA |
| the diagrams) of the building is Attached garage (top of slab) is | | | (see pages 1-2 | |
| | | feet 🗌 meters | above or | below the H |
| | f | eet 🗌 meters | above or | below the H |
| Top of platform of machinery and/or equipment servicing the building is | f | eet 🗌 meters | above or | below the H |
| Zone AO only: If no flood depth number is available, is the t floodplain management ordinance? Yes No | top of the bottom floor] Unknown. The loca | | | |
| SECTION F - PROPERTY OWNER (OR | OWNER'S REPRESE | NTATIVE) CER | TIFICATION | |
| property owner or owner's authorized representative who co munity-issued BFE) or Zone AO must sign here. The statem perty Owner or Owner's Authorized Representative's Name | ompletes Sections A, E nents in Sections A, B, | 3, and E for Zon and E are corre | e A (without a F ect to the best of | EMA-issued or my knowledge. |
| ress | City | Stat | e | ZIP Code |
| ature | Date | | phone | |
| | Duic | | priorie | |
| iments | | | | |
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| ION CERTIFICA | TE | | OMB No. 1660-0008 Expiration Date: November 30, 201 |
|---|---|--|---|
| | opy the corresponding information for Apt., Unit, Suite, and/or Bldg. No.) or F | | FOR INSURANCE COMPANY US p. Policy Number: |
| City Neptune Township | State New Jersey | ZIP Code 07753 | Company NAIC Number |
| | SECTION G - COMMUNITY INFO | ORMATION (OPTION | AL) |
| The local official who is authorize Sections A, B, C (or E), and G of used in Items G8–G10. In Puerto | this Elevation Certificate. Complete the | community's floodplai applicable item(s) and | n management ordinance can complete I sign below. Check the measurement |
| G1. The information in Sect engineer, or architect w data in the Comments a | ion C was taken from other documentat ho is authorized by law to certify elevati area below.) | on that has been sign on information. (Indica | ed and sealed by a licensed surveyor, ate the source and date of the elevation |
| G2. A community official co or Zone AO. | mpleted Section E for a building located | in Zone A (without a | FEMA-issued or community-issued BFE |
| G3. The following information | on (Items G4–G10) is provided for comr | nunity floodplain mana | agement purposes. |
| G4. Permit Number | G5. Date Permit Issued | | G6. Date Certificate of Compliance/Occupancy Issued |
| G7. This permit has been issued | I for: New Construction S | ıbstantial Improvemei | nt |
| G8. Elevation of as-built lowest f of the building: | floor (including basement) | | feet imeters Datum |
| 9. BFE or (in Zone AO) depth | of flooding at the building site: | | feet imeters Datum |
| G10. Community's design flood e | levation: | | feet meters |
| Local Official's Name | 1 | itle | |
| Community Name | T | elephone | |
| Signature | E | pate | |
| Comments (including type of equi | pment and location, per C2(e), if application | able) | |
| | | • | |
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BUILDING PHOTOGRAPHS

See Instructions for Item A6.

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

| TANT: In these spaces, copy | the corresponding information | from Section A. | FOR INSURANCE COMPANY USE |
|---|---------------------------------------|------------------------|---------------------------|
| uiding Street Address (including Ap 14 Beverly Way | t., Unit, Suite, and/or Bldg. No.) or | P.O. Route and Box No. | Policy Number: |
| City Neptune Township | State New Jersey | ZIP Code 07753 | Company NAIC Number |

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



Photo One Caption Front View

, ON CERTIFICATE

Clear Photo One



Photo Two Caption Left Side View

| ION CERTIFICATE | Continuatio | n Page | OMB No. 1660-0008 Expiration Date: November 30, 201 |
|--|-------------------------------|---------------------------|--|
| ATANT: In these spaces, copy the co | orresponding information | from Section A. | FOR INSURANCE COMPANY US |
| ailding Street Address (including Apt., Unit | , Suite, and/or Bldg. No.) or | P.O. Route and Box No. | Policy Number: |
| City | State | ZIP Code | Company NAIC Number |
| Neptune Township | New Jersey | 07753 | |
| If submitting more photographs than will t with: date taken; "Front View" and "Rea photographs must show the foundation with | ar View"; and, if required | , "Right Side View" and | "Left Side View." When applicable, |
| | | | 27/2019 |
| Photo Three Caption Right Side View | Photo Th | ree | Clear Photo Th |
| | | | |
| | | • • • • • | 27/2019 |
| * | | | |
| | | | |

Photo Four Caption Rear View

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

Replaces all previous editions.

Clear Photo Four

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1



Most Widely Accepted and Trusted

ICC-ES Evaluation Report

ESR-2074

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

Reissued 02/2019 This report is subject to renewal 02/2021.

DIVISION: 08 00 00—OPENINGS SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

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 FLOOD VENT SEALING KIT #1540-526



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

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ESR-2074

Reissued February 2019

This report is subject to renewal February 2021.

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

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 FLOOD VENT SEALING KIT #1540-526

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009 and 2006 International Building Code[®] (IBC)
- 2018, 2015, 2012, 2009 and 2006 *International Residential Code*[®] (IRC)
- 2018 International Energy Conservation Code[®] (IECC)
- 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 #1540-511 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.

3.4 Flood Vent Sealing Kit:

The Flood Vent Sealing Kit Model #1540-526 is used with SmartVENT[®] Model #1540-520. It is a Homasote 440 Sound Barrier[®] (ESR-1374) insert with 21 - 2-inch-by-2-inch (51 mm x 51 mm) squares cut in it. See Figure 4.

4.0 DESIGN AND INSTALLATION

4.1 SmartVENT[®] and FloodVENT[®]:

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

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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 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.

4.2 Flood Vent Sealing Kit

The Flood Vent Sealing Kit Model 1540-526 is used in conjunction with FloodVENT[®] Model #1540-520. When installed and tested in accordance with ASTM E283, the FV and Flood Vent Sealing Kit assembly have an air leakage rate of less than 0.2 cubic feet per minute per lineal foot (18.56 l/min per lineal meter) at a pressure differential of 1 pound per square foot (50 Pa) based on 12.58 lineal feet (3.8 lineal meters) contained by the Flood Vent Sealing Kit.

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

- **6.1** Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised October 2017).
- **6.2** Test report on air infiltration in accordance with ASTM E283.

7.0 IDENTIFICATION

- **7.1** The Smart VENT[®] models and the Flood Vent Sealing Kit 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).
- **7.2** The report holder's contact information is the following:

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

| TABLE | 1-MODEL | SIZES |
|-------|---------|-------|
|-------|---------|-------|

| 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 |

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

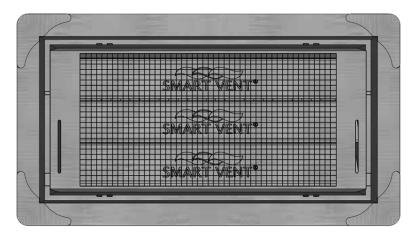


FIGURE 1-SMART VENT: MODEL 1540-510

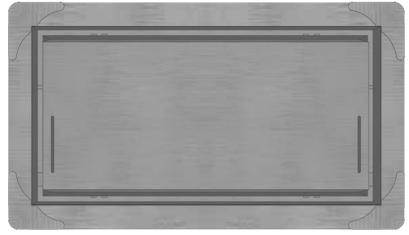


FIGURE 2—SMART VENT MODEL 1540-520



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

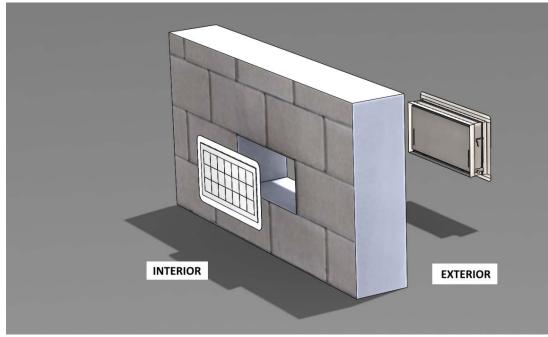


FIGURE 4—FLOOD VENT SEALING KIT



ESR-2074 CBC and CRC Supplement

Reissued February 2019 This report is subject to renewal February 2021.

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A Subsidiary of the International Code Council®

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

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 FLOOD VENT SEALING KIT #1540-526

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 2019.

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.





ESR-2074 FBC Supplement

Reissued February 2019 This report is subject to renewal February 2021.

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A Subsidiary of the International Code Council[®]

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

REPORT HOLDER:

SMART VENT PRODUCTS, INC.

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 FLOOD VENT SEALING KIT #1540-526

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 2019.



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

1

| OMB No. 1 | 1660-0 | 0008 | | |
|------------|--------|----------|-----|------|
| Expiration | Date: | November | 30, | 2018 |

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

| | TION A - PROPERTY | INFORMATION | . F | OR INSURANCE COMPANY U |
|--|--|---|---|---|
| A1. Building Owner's Name VINCENT SERRAINO | | | . F | olicy Number: |
| A2. Building Street Address (in Box No.9 RIVERVIEW COURT | cluding Apt., Unit, Suit | e, and/or Bldg. No.) or P.C | D. Route and C | Company NAIC Number: |
| City | | State | | IP Code |
| NEPTUNE TOWNSHIP | | New Jersey | 0 | 7753 |
| A3. Property Description (Lot a TAX MAP LOT 6 BLOCK 53 | | ax Parcel Number, Legal D | escription, etc.) | |
| A4. Building Use (e.g., Resider | ntial, Non-Residential, | Addition, Accessory, etc.) | RESIDENTIAL | |
| A5. Latitude/Longitude: Lat. N | 40 11 40.35 | Long. W 74 02 26.75 | Horizontal Datum: | NAD 1927 X NAD 1983 |
| A6. Attach at least 2 photograp | ohs of the building if the | e Certificate is being used | to obtain flood insuran | ce. |
| A7. Building Diagram Number | 7 | | | |
| A8. For a building with a crawls | | | | |
| a) Square footage of craw | | 600 on # | | |
| | • | | | |
| b) Number of permanent fl | lood openings in the cr | awispace or enclosure(s) | within 1.0 foot above a | djacent grade 3 |
| c) Total net area of flood o | penings in A8.b 3 | 84 sq in | | |
| d) Engineered flood opening | ngs? 🛛 Yes 🗌 N | lo | | |
| A9. For a building with an attac | hed garage: | | | |
| 5 | | | | |
| a). Square footage of attac | | 0 saft | | |
| a) Square footage of attac | hed garage1,34 | | oot abovo adiacont ar | do 7 |
| b) Number of permanent f | hed garage1,34 lood openings in the at | tached garage within 1.0 fo | oot above adjacent gra | ade7 |
| | hed garage1,34 lood openings in the at | | oot above adjacent gra | ade 7 |
| b) Number of permanent f | hed garage1,34 lood openings in the at penings in A9.b8 | tached garage within 1.0 fo | oot above adjacent gra | ade 7 |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood opening | hed garage1,34 lood openings in the at penings in A9.b8 ngs? Yes N | tached garage within 1.0 fo 896 sq in No | | |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openir | hed garage 1,34 lood openings in the at penings in A9.b 8 ngs? X Yes N ECTION B – FLOOD I | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP | (FIRM) INFORMAT | ION |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openin SI B1. NFIP Community Name & C | hed garage 1,34 lood openings in the at penings in A9.b 8 ngs? X Yes N ECTION B – FLOOD I | tached garage within 1.0 fo 896 sq in No | (FIRM) INFORMAT | |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openin SI B1. NFIP Community Name & C | hed garage 1,34 lood openings in the at penings in A9.b 8 ngs? X Yes N ECTION B - FLOOD I Community Number | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam | (FIRM) INFORMAT | ON B3. State |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openin SI B1. NFIP Community Name & O NEPTUNE TOWNSHIP 340 B4. Map/Panel B5. Suffix | hed garage1,34 lood openings in the at penings in A9.b ngs? ⊠ Yes N ECTION B – FLOOD I Community Number 0317 B6. FIRM Index | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam MONMOUTH B7. FIRM Panel | P (FIRM) INFORMAT I e | B3. State New Jersey B9. Base Flood Elevation(s) |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openin SI B1. NFIP Community Name & C NEPTUNE TOWNSHIP 340 B4. Map/Panel Number B5. Suffix B4025C0333 | hed garage1,34 lood openings in the at penings in A9.b8 ngs? ⊠ Yes N ECTION B - FLOOD I Community Number 1317 B6. FIRM Index Date 09/25/2009 | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam MONMOUTH B7. FIRM Panel Effective/ Revised Date 09/25/2009 | e B8. Flood Zone(s) AE | B3. State New Jersey B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openin SI B1. NFIP Community Name & O NEPTUNE TOWNSHIP 340 B4. Map/Panel Number B4025C0333 B10. Indicate the source of the | hed garage,34 lood openings in the at penings in A9.b ngs? ⊠ Yes N ECTION B – FLOOD I Community Number 0317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam MONMOUTH B7. FIRM Panel Effective/ Revised Date 09/25/2009 (BFE) data or base flood d | e B8. Flood Zone(s) AE | B3. State New Jersey B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood openin SI B1. NFIP Community Name & O NEPTUNE TOWNSHIP 340 B4. Map/Panel Number B4025C0333 B10. Indicate the source of the | hed garage,34 lood openings in the at penings in A9.b ngs? ⊠ Yes N ECTION B – FLOOD I Community Number 0317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam MONMOUTH B7. FIRM Panel Effective/ Revised Date 09/25/2009 | e B8. Flood Zone(s) AE | B3. State New Jersey B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 |
| b) Number of permanent finds c) Total net area of flood of oddition of the second diamond diamond of the second diamond diam | hed garage,34 lood openings in the at penings in A9.b ngs? ⊠ Yes N ECTION B - FLOOD I Community Number 0317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation Community Determ | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Name MONMOUTH B7. FIRM Panel Effective/ Revised Date 09/25/2009 (BFE) data or base flood d nined [] Other/Source: | e B8. Flood Zone(s) AE lepth entered in Item E | B3. State New Jersey B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 |
| b) Number of permanent fl c) Total net area of flood o d) Engineered flood opening B1. NFIP Community Name & O NEPTUNE TOWNSHIP 340 34. Map/Panel Number 34. Map/Panel Number B10. Indicate the source of the □ FIS Profile ⊠ FIRM | hed garage1,34 lood openings in the at penings in A9.b8 ngs? ⊠ Yes N ECTION B – FLOOD I Community Number 1317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation Community Determ used for BFE in Item B8 | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam MONMOUTH B7. FIRM Panel Effective/ Revised Date 09/25/2009 (BFE) data or base flood d nined Other/Source: 9: NGVD 1929 X N. | P (FIRM) INFORMATION e B8. Flood Zone(s) AE lepth entered in Item E AVD 1988 Othe | B3. State New Jersey B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 89: r/Source: |
| b) Number of permanent fi c) Total net area of flood o d) Engineered flood opening B1. NFIP Community Name & O NEPTUNE TOWNSHIP 340 34. Map/Panel Number 34. Map/Panel Number B10. Indicate the source of the □ FIS Profile ⊠ FIRM B11. Indicate elevation datum of B12. Is the building located in a | hed garage1,34 lood openings in the at penings in A9.b ngs? ⊠ Yes N ECTION B - FLOOD I Community Number 0317 B6. FIRM Index Date 09/25/2009 Base Flood Elevation Community Detern used for BFE in Item B9 a Coastal Barrier Resou | tached garage within 1.0 fr 896 sq in No NSURANCE RATE MAP B2. County Nam MONMOUTH B7. FIRM Panel Effective/ Revised Date 09/25/2009 (BFE) data or base flood d nined Other/Source: 9: NGVD 1929 X N. | P (FIRM) INFORMATION e B8. Flood Zone(s) AE lepth entered in Item E AVD 1988 Othe | B3. State New Jersey B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 9 89: r/Source: |

| ELEVATION CERTIFICATE | | | OMB No. 1660-0008 Expiration Date: November 30, 2018 |
|---|--|---------------------------------------|---|
| IMPORTANT: In these spaces, copy the corresponding info | mation from Sec | tion A. | FOR INSURANCE COMPANY USE |
| Building Street Address (including Apt., Unit, Suite, and/or Bldg. 9 RIVERVIEW COURT | . No.) or P.O. Rou | te and Box No. | Policy Number: |
| City State NEPTUNE TOWNSHIP New Jers | | Code | Company NAIC Number |
| | | | |
| SECTION C – BUILDING ELEVAT | TION INFORMAT | ION (SURVEY RE | EQUIRED) |
| C1. Building elevations are based on: Construction Dra *A new Elevation Certificate will be required when constru- | | • | ction* 🔀 Finished Construction |
| C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V Complete Items C2.a–h below according to the building d | /1V30, V (with Bl | = E), AR, AR/A, AR/ | |
| Benchmark Utilized: R.M. 28 & R.M. 29 OLD FIRM | Vertical Datum: | NAVD 1988 | - |
| Indicate elevation datum used for the elevations in items a | a) through h) below | N. | |
| 🔲 NGVD 1929 🔀 NAVD 1988 🗌 Other/Source | | | |
| Datum used for building elevations must be the same as t | that used for the B | FE. | Check the measurement used. |
| a) Top of bottom floor (including basement, crawlspace, | or enclosure floor) | <u> </u> | X feet |
| b) Top of the next higher floor | | <u> </u> | X feet T meters |
| c) Bottom of the lowest horizontal structural member (V 2 | Zones only) | N/A | IX feet I meters |
| d) Attached garage (top of slab) | | 7 0 | X feet I meters |
| e) Lowest elevation of machinery or equipment servicing (Describe type of equipment and location in Comment | the building s) | 29_0 | X feet meters |
| f) Lowest adjacent (finished) grade next to building (LAG | 5) | <u> </u> | X feet 🔲 meters |
| g) Highest adjacent (finished) grade next to building (HA | | 7.5 | I feet I meters |
| h) Lowest adjacent grade at lowest elevation of deck or s | • | 6.6 | X feet meters |
| SECTION D – SURVEYOR, ENG | INEER OR ARC | HITECT CERTIFI | CATION |
| This certification is to be signed and sealed by a land surveyor | | | |
| I certify that the information on this Certificate represents my b statement may be punishable by fine or imprisonment under 1 | est efforts to inter 8 U.S. Code, Sec | oret the data availa ion 1001. | ble. I understand that any false |
| Were latitude and longitude in Section A provided by a license | d land surveyor? | ⊠Yes ∐No | Check here if attachments. |
| | ense Number 35855 | | |
| Title LAND SURVEYOR | | | |
| Company Name PAUL K. LYNCH LS | | | |
| Address P.O. BOX 1453 | | · · · · · · · · · · · · · · · · · · · | - Here |
| City Sta | to | ZIP Code | |
| | v Jersey | 07719 | |
| Signature Dat | e 29/2018 | Telephone (732) 681-4035 | |
| Copy all pages of this Elevation Certificate and all attachments fo | r (1) community off | icial, (2) insurance a | gent/company, and (3) building owner. |
| Comments (including type of equipment and location, per C2(e A7 STRUCTURE IS ELEVATED ON PARTIAL STORY FOUN A8,9a ENTIRE FOUNDATION OUTLINE IS 2075 SF, WITHIN FILL WHICH LEAVES BALANCE OF APPROX. 600 SF A8,9bc ALL OPENINGS HAVE "SMART" VENT MODEL 1540 SF (ENCLOS. COVERAGE 600 SF, GARAGE COVERAGE 1 C2e ELEVATION SHOWN IS ATTIC FLOOR WHERE FURNA | D. WALLS ARE GARAGE A -520 INSTALLED 400 SF) SQ. INCH | MANUFACT. CEF | TIFIES EACH ONE COVERS 200 DUGH OPENINGS OF 8" x 16" |
| PRELIMINARY FIRM 34025C0333G DATED 1-30-2015 SH | | | |

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| ELEVATION CERTIFICATE | | | OMB No. 1660-0008 Expiration Date: November 30, 2018 | | |
|--|---|--|---|--|--|
| IMPORTANT: In these spaces, copy the corres | sponding information | from Section A. | FOR INSURANCE COMPANY USE | | |
| Building Street Address (including Apt., Unit, Sui 9 RIVERVIEW COURT | te, and/or Bldg. No.) or | P.O. Route and Box No. | Policy Number: | | |
| City NEPTUNE TOWNSHIP | State New Jersey | ZIP Code 07753 | Company NAIC Number | | |
| | | RMATION (SURVEY NOT E A (WITHOUT BFE) | REQUIRED) | | |
| For Zones AO and A (without BFE), complete Ite complete Sections A, B,and C. For Items E1–E4, enter meters. | ms E1–E5. If the Certifi , use natural grade, if a | icate is intended to support i vailable. Check the measure | a LOMA or LOMR-F request, ement used. In Puerto Rico only, | | |
| E1. Provide elevation information for the following the highest adjacent grade (HAG) and the log a) Top of bottom floor (including basement, | | | er the elevation is above or below | | |
| crawlspace, or enclosure) is b) Top of bottom floor (including basement, | | [] feet [] mete | | | |
| crawlspace, or enclosure) is E2. For Building Diagrams 6–9 with permanent | | feet mete | | | |
| the next higher floor (elevation C2.b in the diagrams) of the building is | | feet i mete | | | |
| E3. Attached garage (top of slab) is | | feet [] mete | rs 🔲 above or 🗋 below the HAG. | | |
| E4. Top of platform of machinery and/or equipm servicing the building is | ent | feet [] mete | rs 🔲 above or 🗋 below the HAG. | | |
| E5. Zone AO only: If no flood depth number is a floodplain management ordinance? | | | cordance with the community's certify this information in Section G. | | |
| SECTION F - PROPERT | Y OWNER (OR OWNE | R'S REPRESENTATIVE) C | ERTIFICATION | | |
| The property owner or owner's authorized repres community-issued BFE) or Zone AO must sign h | entative who completes ere. The statements in | s Sections A, B, and E for Zo Sections A, B, and E are co | one A (without a FEMA-issued or rrect to the best of my knowledge. | | |
| Property Owner or Owner's Authorized Represen | perty Owner or Owner's Authorized Representative's Name | | | | |
| Address | (| City Si | ate ZIP Code | | |
| Signature | | Date Te | elephone | | |
| Comments | | | | | |
| | | | | | |
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| | | | | | |
| | | | Check here if attachments. | | |
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| ELEVATION CERTIFICATE | - | | OMB No. 1660-0008 Expiration Date: November 30, 2018 |
|--|--|---|---|
| IMPORTANT: In these spaces, copy the corn | esponding information | from Section A. | FOR INSURANCE COMPANY USE |
| Building Street Address (including Apt., Unit, St 9 RIVERVIEW COURT | uite, and/or Bldg. No.) or | P.O. Route and Box N | lo. Policy Number: |
| City NEPTUNE TOWNSHIP | State New Jersey | ZIP Code 07753 | Company NAIC Number |
| SECTIO | ON G - COMMUNITY INI | FORMATION (OPTIOI | NAL) |
| engineer, or architect who is authoriz | Certificate. Complete the ter meters. en from other documenta | e applicable item(s) an ation that has been sig | |
| G2. A community official completed Section Zone AO. | on E for a building locate | ed in Zone A (without a | FEMA-issued or community-issued BFE) |
| G3. The following information (Items G4- | G10) is provided for com | munity floodplain man | agement purposes. |
| G4. Permit Number | G5. Date Permit Issue | d | G6. Date Certificate of Compliance/Occupancy Issued |
| G7. This permit has been issued for: | New Construction | Substantial Improveme | nt |
| G8. Elevation of as-built lowest floor (including of the building: | g basement) | [_ |] feet 🔲 meters Datum |
| G9. BFE or (in Zone AO) depth of flooding at | the building site: | | feet 🔲 meters Datum |
| G10. Community's design flood elevation: | | |] feet []] meters Datum |
| Local Official's Name | | Title | |
| Community Name | | Telephone | |
| Signature | | Date | |
| Comments (including type of equipment and loc | pation ner C2(e) if applic | vahla) | |
| | | | |
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| | " | | |
| | | | |
| | | | Check here if attachments. |

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ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

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

| IMPORTANT: In these spaces, copy the corresponding information from Section A. | | | FOR INSURANCE COMPANY USE |
|--|-----------------------------------|------------------------|---------------------------|
| Building Street Address (including Apt., I 9 RIVERVIEW COURT | Jnit, Suite, and/or Bldg. No.) or | P.O. Route and Box No. | Policy Number: |
| City | State | ZIP Code | Company NAIC Number |
| NEPTUNE TOWNSHIP | New Jersey | 07753 | |

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

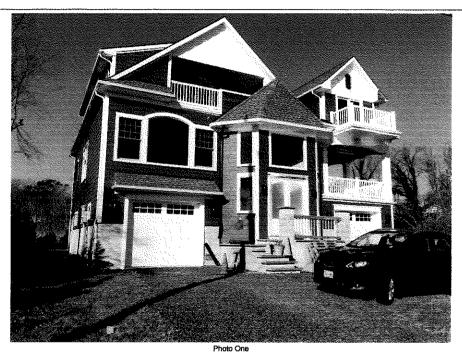


Photo One Caption 11-29-2018 FRONT



Photo Two Caption 11-29-2018 LEFT REAR

ELEVATION CERTIFICATE

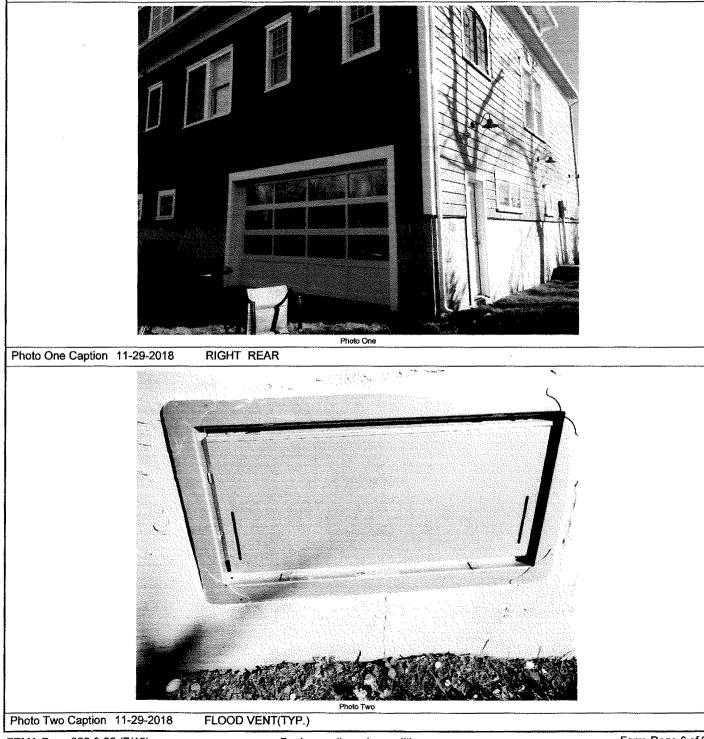
BUILDING PHOTOGRAPHS

Continuation Page

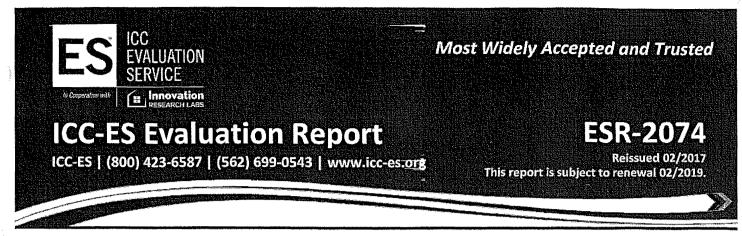
OMB No. 1660-0008 Expiration Date: November 30, 2018

| | | - | - |
|--|-----------------------------------|------------------------|---------------------------|
| IMPORTANT: In these spaces, copy the corresponding information from Section A. | | | FOR INSURANCE COMPANY USE |
| Building Street Address (including Apt., 9 RIVERVIEW COURT | Unit, Suite, and/or Bldg. No.) or | P.O. Route and Box No. | Policy Number: |
| City | State | ZIP Code | Company NAIC Number |
| NEPTUNE TOWNSHIP | New Jersev | 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.



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



DIVISION: 08 00 00—OPENINGS SECTION: 08 95 43—VENTS/FOUNDATION FLOOD VENTS

REPORT HOLDER:

SMARTVENT PRODUCTS, INC.

430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071

EVALUATION SUBJECT:

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



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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; #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,

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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

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installed with a minimum of one FV for every $400 \text{ square feet } (37.2 \text{ m}^2) \text{ of enclosed area.}$

- 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 = m^2

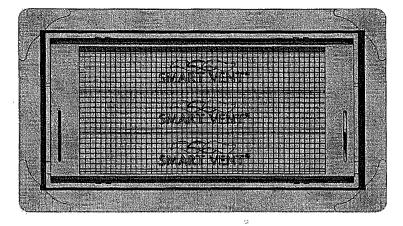


FIGURE 1-SMART VENT: MODEL 1540-510

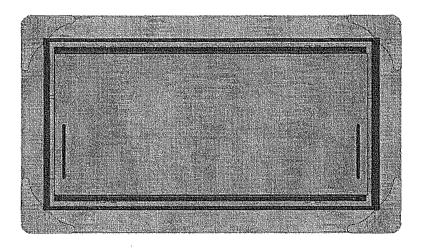


FIGURE 2-SMART VENT MODEL 1540-520

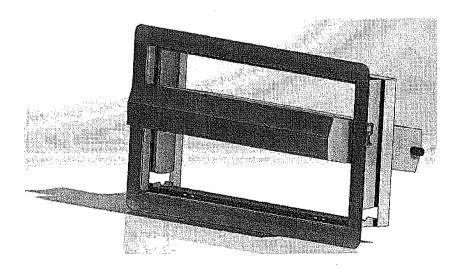


FIGURE 3-SMART VENT: SHOWN WITH FLOOD DOOR PIVOTED OPEN



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ESR-2074 CBC and CRC Supplement

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

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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.

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

REPORT HOLDER:

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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.

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