National Flood Insurance Program

# **Elevation Certificate**

and Instructions

2023 EDITION



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

#### **ELEVATION CERTIFICATE AND INSTRUCTIONS**

#### PAPERWORK REDUCTION ACT NOTICE

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.** 

#### PRIVACY ACT STATEMENT

Authority: Title 44 CFR § 61.7 and 61.8.

**Principal Purpose(s):** This information is being collected for the primary purpose of documenting compliance with National Flood Insurance Program (NFIP) floodplain management ordinances for new or substantially improved structures in designated Special Flood Hazard Areas. This form may also be used as an optional tool for a Letter of Map Amendment (LOMA), Conditional LOMA (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional LOMR-F (CLOMR-F), or for flood insurance rating purposes in any flood zone.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/ FEMA-003 – National Flood Insurance Program Files System of Records Notice 79 Fed. Reg. 28747 (May 19, 2014) and upon written request, written consent, by agreement, or as required by law.

**Disclosure:** The disclosure of information on this form is voluntary; however, failure to provide the information requested may impact the flood insurance premium through the NFIP. Information will only be released as permitted by law.

#### PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the NFIP. It can be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to inform the proper insurance premium, and to support a request for a LOMA, CLOMA, LOMR-F, or CLOMR-F.

The Elevation Certificate is used to document floodplain management compliance for Post-Flood Insurance Rate Map (FIRM) buildings, which are buildings constructed after publication of the FIRM, located in flood Zones A1–A30, AE, AH, AO, A (with Base Flood Elevation (BFE)), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, and A99. It may also be used to provide elevation information for Pre-FIRM buildings or buildings in any flood zone.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. Lowest Adjacent Grade (LAG) elevations certified by a land surveyor, engineer, or architect, as authorized by state law, will be required if the certificate is used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 application package, whichever is appropriate. If the certificate will only be completed to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request, there is an option to document the certified LAG elevation on the Elevation Form included in the MT-EZ and MT-1 application.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the BFE. A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

The expiration date on the form herein does not apply to certified and completed Elevation Certificates, as a completed Elevation Certificate does not expire, unless there is a physical change to the building that invalidates information in Section A Items A8 or A9, Section C, Section E, or Section H. In addition, this form is intended for the specific building referenced in Section A and is not invalidated by the transfer of building ownership.

Additional guidance can be found in FEMA Publication 467-1, Floodplain Management Bulletin: Elevation Certificate.

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

# **ELEVATION CERTIFICATE**

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11 Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name: Evan R. & Alison R. Cutsigner	Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: 1704 Lemon Avenue	Company NAIC Number:
City: Englewood State: FL	ZIP Code: 34223
A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Nu Lots 4 & 10, Block 45, Manasota Land and Timber Company	mber:
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Residential	
A5. Latitude/Longitude: Lat. 27*-00'-26.69" Long82*-24'-15.35" Horiz. Datum:	] NAD 1927 🔀 NAD 1983 🗌 WGS 84
A6. Attach at least two and when possible four clear color photographs (one for each side) of the k	
A7. Building Diagram Number:6	
A8. For a building with a crawlspace or enclosure(s):	
a) Square footage of crawlspace or enclosure(s): 238 sq. ft.	
b) Is there at least one permanent flood opening on two different sides of each enclosed area	? ⊠ Yes ☐ No ☐ N/A
<ul> <li>c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foo Non-engineered flood openings: N/A Engineered flood openings:</li> </ul>	
d) Total net open area of non-engineered flood openings in A8.c:N/A sq. in.	
e) Total rated area of engineered flood openings in A8.c (attach documentation - see Instruct	ions): 500 sq. ft.
f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): N.A sq. ft.	
A9. For a building with an attached garage:	
a) Square footage of attached garage: N/A sq. ft.	
b) Is there at least one permanent flood opening on two different sides of the attached garage	? Yes No No N/A
c) Enter number of permanent flood openings in the attached garage within 1.0 foot above ad Non-engineered flood openings: N/A Engineered flood openings: N/A	
d) Total net open area of non-engineered flood openings in A9.c: N/A sq. in.	
e) Total rated area of engineered flood openings in A9.c (attach documentation - see Instruct	ions): N/A sq. ft.
f) Sum of A9.d and A9.e rated area (if applicable – see Instructions):N/A sq. ft.	
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFO	RMATION
B1.a. NFIP Community Name: Sarasota County B1.b. NFIP Cor	nmunity Identification Number: 125144
B2. County Name: Sarasota B3. State: FL B4. Map/Panel No.:	<u>12115C0344</u> B5. Suffix: <u>G</u>
B6. FIRM Index Date: 03/27/2024 B7. FIRM Panel Effective/Revised Date: 03/27/2	024
B8. Flood Zone(s): AE B9. Base Flood Elevation(s) (BFE) (Zone AO, use	Base Flood Depth): 10.0'
B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9:  ☐ FIS ☐ FIRM ☐ Community Determined ☐ Other:	
B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Othe	er/Source:
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Pro Designation Date: CBRS OPA	otected Area (OPA)?
B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)?	] No

Building Street Address (including Apt., Unit, Suite,	and/or Bldg. No.)	or P.O. Route and Box	No.:	FOR	INSURA	NCE C	OMPANY USE
the state of the s				Policy	licy Number:		
City: Englewood State: FL ZIP Code: 34223 Code: State: State: State: State: Code: 34223 Code: State:			Company NAIC Number:				
SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)							
C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction *A new Elevation Certificate will be required when construction of the building is complete.							
C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.  Benchmark Utilized: N.G.S. B.M. #SAR 24 Vertical Datum: N.A.V.D. 1988							R/AH, AR/AO, meters.
Indicate elevation datum used for the elevations i ☐ NGVD 1929 ☑ NAVD 1988 ☐ Other		n h) below.					
Datum used for building elevations must be the s If Yes, describe the source of the conversion fact	ame as that used or in the Section I	for the BFE. Conversi Comments area.	ion factor us	sed?	☐ Ye	_	No asurement used:
a) Top of bottom floor (including basement,	crawlspace, or en	closure floor):		3.4	⊠ fe	et 🗌	meters
b) Top of the next higher floor (see Instruction	ons):			15.3	⊠ fe	et 🗌	meters
c) Bottom of the lowest horizontal structural	member (see Inst	tructions):		N/A	fe	et 🗌	meters
d) Attached garage (top of slab):				N/A	fe	et 🗌	meters
e) Lowest elevation of Machinery and Equip (describe type of M&E and location in Sec	ment (M&E) servi	cing the building s area):		11.0	⊠ fe	et 🗌	meters
f) Lowest Adjacent Grade (LAG) next to bui	lding: 🛛 Natura	al Finished		2.0	⊠ fe	et 🗌	meters
g) Highest Adjacent Grade (HAG) next to bu	ıilding: 🔀 Natura	al Finished		2.7	⊠ fe	et 🗌	meters
h) Finished LAG at lowest elevation of attac support:	hed deck or stairs	, including structural		N/A	☐ fe	et 🗌	meters
SECTION D - SUR	/EYOR, ENGIN	EER, OR ARCHITE	CT CERT	IFICA <sup>-</sup>	TION		
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.							
Were latitude and longitude in Section A provided by a licensed land surveyor? ⊠ Yes ☐ No							
☐ Check here if attachments and describe in the Comments area.							
Certifier's Name: Jerome R. McLeod	Lice	nse Number: 5525					
Title: Professional Surveyor and Mapper							
Company Name: DMK Associates, Inc.						10 J	
Address: 2861 Placida Road, Unit A					= .		
City: Englewood	State:	FL ZIP Code: 3	4224		Pages:	State of Florid	a Ma
Telephone: (941) 475-6596 Ext.: 108	Email: jmcled	od@dmkassoc.com			11/10	Pal Survey	or and Till
[·	me R McLeod 08.23 09:58:31 -	04'00' Date: 08/2	3/2024		Р	lace Se	al Here
Copy all pages of this Elevation Certificate and all a	attachments for (1)	community official, (2)	insurance a	agent/co	ompany,	and (3)	building owner.
Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments): Lat. and Long. coordinates were determined by a hand held W.A.A.S. enabled GPS. Section C2e refers to the out door A/C unit located in the Left Side View Photo, (South side of Residence). Engineered Openings Manufactured by Smart Product Innovations Inc., Freedom Flood Vent, Model No. FFV-1608, ICC-ES Report No. ESR-4332 (attached), Rated for 250 square feet per unit.							

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:	FOR INSURANCE COMPANY USE					
1704 Lemon Avenue  City: Englewood State: FL ZIP Code: 34223	Policy Number:					
City. Linglewood	Company NAIC Number:					
SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)						
For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.						
Building measurements are based on: Construction Drawings* Building Under Construction Anew Elevation Certificate will be required when construction of the building is complete.						
E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the a measurement is above or below the natural HAG and the LAG.	appropriate boxes to show whether the					
a) Top of bottom floor (including basement, crawlspace, or enclosure) is:	☐ above or ☐ below the HAG.					
b) Top of bottom floor (including basement, crawlspace, or enclosure) is:	above or below the LAG.					
E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/c next higher floor (C2.b in applicable	r 9 (see pages 1–2 of Instructions), the					
Building Diagram) of the building is:	above or below the HAG.					
E3. Attached garage (top of slab) is: feet _ meters	above or below the HAG.					
E4. Top of platform of machinery and/or equipment servicing the building is:	above or below the HAG.					
E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in a floodplain management ordinance?   Yes   No  Unknown The local official m	ccordance with the community's ust certify this information in Section G.					
SECTION F - PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESEN	ITATIVE) CERTIFICATION					
The property owner or owner's authorized representative who completes Sections A, B, and E for Z sign here. The statements in Sections A, B, and E are correct to the best of my knowledge	Zone A (without BFE) or Zone AO must					
Check here if attachments and describe in the Comments area.						
Property Owner or Owner's Authorized Representative Name:						
Address:						
City: State:	ZIP Code:					
Telephone: Ext.: Email:						
Signature: Date:						
Comments:						
, and the second						

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Rot 1704 Lemon Avenue					
City: Englewood State: FL ZIP Cod	de: 34223 Policy Number:   Company NAIC Number:				
SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)					
The local official who is authorized by law or ordinance to administer the com Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applical	munity's floodplain management ordinance can complete ble item(s) and sign below when:				
G1. The information in Section C was taken from other documentation engineer, or architect who is authorized by state law to certify elevel elevation data in the Comments area below.)	n that has been signed and sealed by a licensed surveyor, vation information. (Indicate the source and date of the				
G2.a. A local official completed Section E for a building located in Zone E5 is completed for a building located in Zone AO.	A (without a BFE), Zone AO, or Zone AR/AO, or when item				
G2.b.   A local official completed Section H for insurance purposes.					
G3.	pecific corrections to the information in Sections A, B, E and H.				
G4.	nity floodplain management purposes.				
G5. Permit Number: G6. Date Permit Issu	ed:				
G7. Date Certificate of Compliance/Occupancy Issued:					
G8. This permit has been issued for:  New Construction  Substan	tial Improvement				
G9.a. Elevation of as-built lowest floor (including basement) of the building:	feet meters Datum:				
G9.b. Elevation of bottom of as-built lowest horizontal structural member:	feet				
G10.a. BFE (or depth in Zone AO) of flooding at the building site:	feet				
G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member:	☐ feet ☐ meters Datum:				
G11. Variance issued? Yes No If yes, attach documentation a	and describe in the Comments area.				
The local official who provides information in Section G must sign here. I hav correct to the best of my knowledge. If applicable, I have also provided speci.	e completed the information in Section G and certify that it is fic corrections in the Comments area of this section.				
Local Official's Name:	Title:				
NFIP Community Name:					
3.5					
Address:					
City:	100 M				
	Data				
Comments (including type of equipment and location, per C2.e; description of	Date:  If any attachments; and corrections to specific information in				
Sections A, B, D, E, or H):					

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:	FOR INSURANCE COMPANY USE
1704 Lemon Avenue	Policy Number:
City: Englewood State: FL ZIP Code: 34223	Company NAIC Number:
SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION I (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES	
The property owner, owner's authorized representative, or local floodplain management official may to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). Reference the Foundation Type Instructions) and the appropriate Building Diagrams (at the end of Section I Instructions) to	oe completed. Enter heights to the Diagrams (at the end of Section H
H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the	e Lowest Adjacent Grade (LAG):
a) For Building Diagrams 1A, 1B, 3, and 5–8. Top of bottom	☐ meters ☐ above the LAG
b) For Building Diagrams 2A, 2B, 4, and 6–9. Top of next  feet higher floor (i.e., the floor above basement, crawlspace, or enclosure floor) is:	☐ meters ☐ above the LAG
H2. Is <b>all</b> Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevat H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the ap	ed to or above the floor indicated by the propriate Building Diagram?
SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESEN	ITATIVE) CERTIFICATION
The property owner or owner's authorized representative who completes Sections A, B, and H mus A, B, and H are correct to the best of my knowledge. <b>Note:</b> If the local floodplain management officindicate in Item G2.b and sign Section G.	st sign here. The statements in Sections iial completed Section H, they should
Check here if attachments are provided (including required photos) and describe each attachments	ent in the Comments area.
Check here if attachments are provided (including required photos) and describe each attachments.  Property Owner or Owner's Authorized Representative Name:	
Property Owner or Owner's Authorized Representative Name:  Address:	
Property Owner or Owner's Authorized Representative Name:  Address:  City:  State:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  State:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.: Email:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:
Property Owner or Owner's Authorized Representative Name:  Address:  City:  Telephone:  Ext.:  Email:  Date:	ZIP Code:

# IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11 **BUILDING PHOTOGRAPHS**

See Instructions for Item A6.

Building Street Address (including Apt., Un	it, Suite, and/or Bld	g. No.) (	or P.O. Route and Box No.:	FOR INSURANCE COMPANY USE
1704 Lemon Avenue				Policy Number:
City: Englewood	State:	FL	ZIP Code: <u>34223</u>	Company NAIC Number:

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.



Photo One

Photo One Caption:

Front View Taken 08/06/2024

Clear Photo One



Photo Two

Photo Two Caption:

Left Side View Taken 08/06/2024

Clear Photo Two

# IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11 BUILDING PHOTOGRAPHS

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:				FOR INSURANCE COMPANY USE
1704 Lemon Avenue	(e)			Policy Number:
City: Englewood	State:_	FL	ZIP Code: <u>34223</u>	Company NAIC Number:

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.



Photo Three

Photo Three Caption:

Rear View Taken 08/06/2024

Clear Photo Three



Photo Four

Photo Four Caption:

Typical Freedom Flood Vent Taken 08/23/2024

Clear Photo Four



# **ICC-ES Evaluation Report**

**ESR-4332** 

Reissued March 2020

This report is subject to renewal March 2022.

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:

SMART PRODUCT INNOVATIONS, INC.

**EVALUATION SUBJECT:** 

FREEDOM FLOOD VENT™ AUTOMATIC FOUNDATION FLOOD VENT: MODEL FFV-1608

#### 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)

#### Properties evaluated:

- Physical operation
- Water flow
- Weathering

#### 2.0 **USES**

The model FFV-1608 Freedom Flood Vent™ is used to equalize hydrostatic pressure on walls of enclosures subject to rising or falling floodwaters. With the cover removed, the model FFV-1608 also provides natural air ventilation.

#### 3.0 DESCRIPTION

#### 3.1 General:

The model FFV-1608 Freedom Flood Vent<sup>™</sup> is an engineered mechanically operated in-wall flood vent (FV) that automatically allows floodwater to enter an enclosed area and exit. The FV is comprised of a polycarbonate frame with mounting flange and a polycarbonate horizontally pivoting door. When subjected to rising water, the model FFV-1608 Freedom Flood Vent<sup>™</sup> door is activated and pivots to allow water and debris to flow in either direction to equalize hydrostatic pressure from one side of the enclosure to the other. The FV features a removable polycarbonate cover. The FV door will activate and pivot when subjected to rising water with or without the polycarbonate cover installed.

#### 3.2 Engineered Opening:

The FV complies with the design principle noted in Section 2.7.2.2 and Section 2.7.3 of ASCE/ SEI 24-14 (2018 and 2015 IBC and IRC) [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, Freedom Flood Vent™ FVs must be installed in accordance with Section 4.0 below. See Table 1 for vent size and maximum allowable area coverage for a single vent.

#### 4.0 DESIGN AND INSTALLATION

The model FFV-1608 Freedom Flood Vent™ is designed to be installed into walls or overhead doors of existing or new construction. Installation of the vent must be in accordance with the manufacturer's instructions, the applicable code, and this report. In order to comply with the engineered opening design principle noted in Sections 2.7.2.2 and 2.7.3 of ASCE/ SEI 24-14 (2018 and 2015 IBC and IRC) [Section 2.6.2.2 of ASCE/ SEI 24-05 (2012, 2009, 2006 IBC and IRC)], the Freedom Flood Vent™ 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 250 square feet (23.2 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the vent located a maximum of 12 inches (305.4 mm) above the higher of the final interior grade or floor and the finished exterior grade immediately under each opening.

#### 5.0 CONDITIONS OF USE

The Freedom Flood Vent™ described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The model FFV-1608 Freedom Flood Vent<sup>™</sup> unit must be installed in accordance with this report, the applicable code and the manufacturer's published installation instructions. In the event of a conflict, the instructions in this report shall govern.
- 5.2 The model FFV-1608 Freedom Flood Vent™ unit must not be used in place of "breakaway walls" in coastal high hazard areas, but are permitted for use in conjunction with breakaway walls in other areas.



**5.3** Use of the Freedom Flood Vent as under-floor space ventilation is outside the scope of this report.

#### 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated August 2015 (editorially revised October 2017).

#### 7.0 IDENTIFICATION

7.1 The Freedom Flood Vent™ model recognized in this report must be identified by a label bearing the manufacturer's name (Smart Product Innovations, Inc.) and the evaluation report number (ESR-4332.).

**7.2** The report holder's contact information is the following:

SMART PRODUCT INNOVATIONS, INC. 430 ANDBRO DRIVE, UNIT 1 PITMAN, NEW JERSEY 08071 (800) 507-1527 www.freedomfloodvent.com info@freedomfloodvent.com

TABLE 1—FREEDOM FLOOD VENT™

MODEL NAME	MODEL NUMBER	MODEL SIZE	COVERAGE (sq. ft.)
Freedom Flood Vent™	FFV-1608	15 <sup>3</sup> / <sub>4</sub> " X 8 <sup>1</sup> / <sub>16</sub> "	250

For SI: 1 inch = 25.4 mm

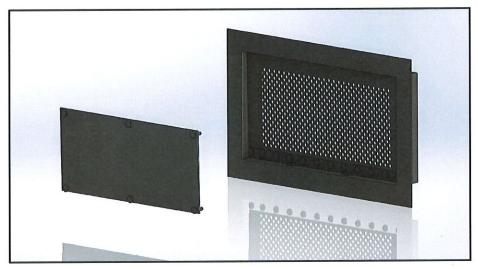


FIGURE 1—MODEL FFV-1608 FREEDOM FLOOD VENT™: SHOWN WITH COVER REMOVED

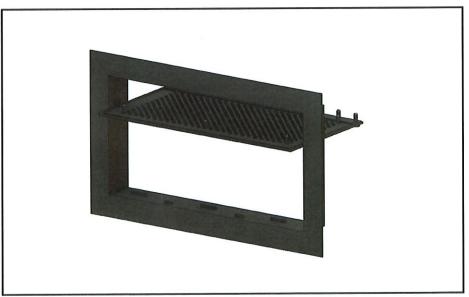


FIGURE 2—MODEL FFV-1608 FREEDOM FLOOD VENT™: SHOWN WITH FLOOD DOOR PIVOTED OPEN



# **ICC-ES Evaluation Report**

# **ESR-4332 CBC and CRC Supplement**

Reissued March 2020

This report is subject to renewal March 2022.

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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 PRODUCT INNOVATIONS, INC.

**EVALUATION SUBJECT:** 

FREEDOM FLOOD VENT™ AUTOMATIC FOUNDATION FLOOD VENT: MODEL FFV-1608

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that the Freedom Flood Vent™ Automatic Foundation Flood Vent: Model FFV-1608, recognized in ICC-ES master evaluation report ESR-4332, has also been evaluated for compliance with codes noted below.

#### Applicable code edition(s):

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

#### 2.0 CONCLUSIONS

#### 2.1 CBC:

The Freedom Flood Vent™ Automatic Foundation Flood Vent: Model FFV-1608, described in Sections 2.0 through 7.0 of the master evaluation report ESR-4332, complies with CBC Chapters 12, 16 and 16A, provided the design and installation are in accordance with the 2015 *International Building Code*® (2015 IBC) provisions noted in the master report and the additional requirements of 12, 16, and 16A, as applicable.

The product recognized in this supplement has 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 Freedom Flood Vent™ Automatic Foundation Flood Vent: Model FFV-1608, described in Sections 2.0 through 7.0 of the master evaluation report ESR-4332, complies with the 2016 CRC, provided the design and installation are in accordance with the 2015 International Residential Code® (2015 IRC) provisions noted in the master report.

The product recognized in this supplement has 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 product recognized in this supplement has not been evaluated for compliance with the *International Wildland–Urban Interface Code*®.

This supplement expires concurrently with the evaluation report, reissued March 2020.



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## **ICC-ES Evaluation Report**

# **ESR-4332 FBC Supplement**

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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 PRODUCT INNOVATIONS, INC.

**EVALUATION SUBJECT:** 

FREEDOM FLOOD VENT™ AUTOMATIC FOUNDATION FLOOD VENT: MODEL FFV-1608

#### 1.0 REPORT PURPOSE AND SCOPE

#### Purpose:

The purpose of this evaluation report supplement is to indicate that Freedom Flood Vent™ Automatic Foundation Flood Vent: Model FFV-1608, recognized in ICC-ES master evaluation report ESR-4332, has 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 Freedom Flood Vent™ Automatic Foundation Flood Vent: Model FFV-1608, described in Sections 2.0 through 7.0 of the master evaluation report ESR-4332, complies with the Florida Building Code-Building and the Florida Building Code-Residential, provided the design and installation are in accordance with the International Building Code® (IBC) provisions noted in the master report.

Use of the Freedom Flood Vent™ Automatic Foundation Flood Vent: Model FFV-1608 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 evaluation report, reissued March 2020.

