

*Permit
 FP 63487*

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

*OK
 Mohr
 2-23-17*

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 JIMMY C. RICHARDSON		Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 310 VISTA DRIVE		Company NAIC Number:	
City GARDEN CITY	State South Carolina	ZIP Code 29576	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) LOT 9-A BLOCK "C" MYRTLE DUNES (TMS 195-10-15-043)			
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)		RESIDENTIAL	
A5. Latitude/Longitude: Lat. <u>33°35'20.472"N</u> Long. <u>78°59'36.789"W</u>		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.			
A7. Building Diagram Number <u>6</u>			
A8. For a building with a crawlspace or enclosure(s):			
a) Square footage of crawlspace or enclosure(s) <u>378</u> sq ft			
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>5</u>			
c) Total net area of flood openings in A8.b <u>570</u> sq in		REV. 02/23/2017	
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
A9. For a building with an attached garage:			
a) Square footage of attached garage <u>0</u> sq ft			
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>0</u>			
c) Total net area of flood openings in A9.b <u>0</u> sq in			
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION			
B1. NFIP Community Name & Community Number HORRY COUNTY 450104		B2. County Name HORRY	B3. State South Carolina
B4. Map/Panel Number 45051C0753	B5. Suffix H	B6. FIRM Index Date 09/17/2003	B7. FIRM Panel Effective/Revised Date 08/23/1999
B8. Flood Zone(s) AE		B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 13	
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____			
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____			
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA			

ELEVATION CERTIFICATE

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., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 310 VISTA DRIVE			Policy Number:
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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, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: SCVRS Vertical Datum: NGVD 29

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929 NAVD 1988 Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

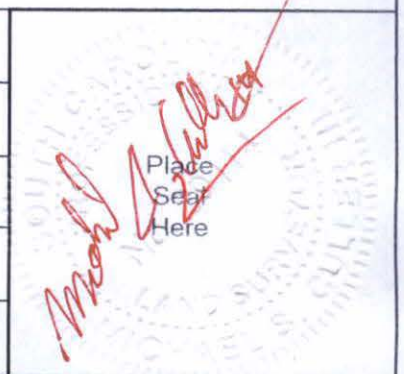
		Check the measurement used.
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	10.2	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
b) Top of the next higher floor	21.4	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
d) Attached garage (top of slab)	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	19.4	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	9.1	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	9.6	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	N/A	<input checked="" type="checkbox"/> feet <input type="checkbox"/> meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by 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.

Certifier's Name MICHAEL S. CULLER, III	License Number 29114
Title PRESIDENT	
Company Name CULLER LAND SURVEYING III, INC	
Address 1010 5TH AVE NW EXT.	
City SURFSIDE BEACH	State South Carolina
	ZIP Code 29575
Signature <i>Michael S. Culler III</i>	Telephone (843) 238-2333
	Date 12/26/2017



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

Comments (including type of equipment and location per C2(e), if applicable)

ITEM C2-A REFERS TO FLOOR LEVEL OF BELOW ENCLOSURE: ITEM C2-E REFERS TO FLOOR LEVEL OF HVAC SYSTEM

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SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ feet meters above or below the HAG.
- b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ . _____ feet meters above or below the LAG.
- E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ . _____ feet meters 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 _____ . _____ feet meters 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 accordance with the community's floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name

Address _____ City _____ State _____ ZIP Code _____

Signature _____ Date _____ Telephone _____

Comments

Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
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City GARDEN CITY	State South Carolina	ZIP Code 29576	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
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- G7. This permit has been issued for: New Construction Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building: _____ 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 location, per C2(e), if applicable)

Check here if attachments.

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2018

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding information from Section A.

FOR INSURANCE COMPANY USE

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.

Policy Number:

310 VISTA DRIVE

City

State

ZIP Code

Company NAIC Number

GARDEN CITY

South Carolina

29576

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



Photo One

Photo One Caption FRONT VIEW (01/26/2017)



Photo Two

Photo Two Caption RIGHT SIDE VIEW (01/26/2017)

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

Continuation Page

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City GARDEN CITY	State South Carolina	ZIP Code 29576	Company NAIC Number

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



Photo One

Photo One Caption VENT VIEW (02/23/2017)



Photo Two

Photo Two Caption LEFT SIDE VIEW (01/26/2017)

ICC-ES Evaluation Report
ESR-3560

Reissued September 2015

This report is subject to renewal September 2017.

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:
FLOOD FLAPS®, LLC
 2707 WATERPOINTE CIRCLE
 MT. PLEASANT, SOUTH CAROLINA 29466
 (843) 849-8031
www.floodflaps.com
info@floodflaps.com
EVALUATION SUBJECT:
**FLOOD FLAPS® FLOOD VENTS: MODELS FFWF12;
 FFNF12; FFWF08; FFNF08; FFWF05; FFNF05**
1.0 EVALUATION SCOPE
Compliance with the following codes:

- 2012 and 2009 *International Building Code*® (IBC)
- 2012 and 2009 *International Residential Code*® (IRC)

Properties evaluated:

- Physical operation
- Water flow
- Weathering

2.0 USES

Flood Flaps® are used to provide for the equalization of hydrostatic flood forces on exterior walls.

3.0 DESCRIPTION
3.1 General:

Flood Flaps® flood vents are engineered mechanically operated flood vents (FVs) that automatically allow flood waters to enter and exit enclosed areas. The FVs are constructed of ABS plastic which serves as the FV's housing, and a front grill that contains an anodized metal screen imbedded in polypropylene plastic. On contact with rising flood water, the grill will disengage from its secured position, allowing flood water and debris to flow through in either direction.

The sealed series models contain two rubber flaps that close the FV to the passage of air when using with conditioned areas or sealed crawl spaces. In the same manner as the grill, the two rubber flaps are pushed open by water pressure, allowing water and debris to flow

through the FV in either direction. See Figure 1 for an illustration of the Flood Flaps® FV.

3.2 Engineered Opening:

The Flood Flaps® FVs comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 for a rate of rise and fall of 5 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirement of ASCE/SEI 24, Flood Flaps® FVs must be installed in accordance with Section 4.0.

3.3 Model Sizes:

The Flood Flaps® FV model designations and sizes are as follows:

MODEL	WIDTH (in)	HIGHT (in)	DEPTH (in)
FFWF12 FFNF12	15 ⁵ / ₈	7 ³ / ₄	12
FFWF08 FFNF08	15 ⁵ / ₈	7 ³ / ₄	8
FFWF05 FFNF05	15 ⁵ / ₈	7 ³ / ₄	5

For SI: 1 inch = 25.4 mm.

The FFWF series include two rubber flaps for the prevention of air flow. The FFNF series omit the rubber flaps.

3.4 Ventilation:

Flood Flaps® FV models FFNF12, FFNF08, FFNF05, and FFNF02 have metal screens with 1/4 inch by 1/4 inch (6 mm by 6 mm) openings and provide 37 square inches of net free opening to supply natural ventilation for under-floor ventilation. Flood Flaps® FV models FFWF12, FFWF08, and FFWF05 have not been evaluated for use as openings for under-floor ventilation.

4.0 DESIGN AND INSTALLATION

Flood Flaps® FVs are designed to be installed into walls of existing or new construction. Installation of the FVs must be in accordance with the manufacturer's instructions, the applicable code and this report. Flood Flaps® FVs can be installed in wood, masonry and concrete walls up to a thickness of 12 inches (305 mm). In order to comply with the engineered opening design principle noted in Section 2.6.2.2 of ASCE/SEI 24, the Flood Flaps® 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 220 square feet (20 m²) of enclosed area.
- Below the base flood elevation.
- With the bottom of the FV located a maximum of 12 inches (305 mm) above grade.

5.0 CONDITIONS OF USE

The Flood Flaps[®] flood vents 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 Flood Flaps[®] 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 Flood Flaps[®] FVs 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.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Mechanically Operated Flood Vents (AC364), dated October 2013.

7.0 IDENTIFICATION

The Flood Flaps models recognized in this report are identified by a label bearing the manufacturer's name, the model number, and the evaluation report number (ESR-3560).

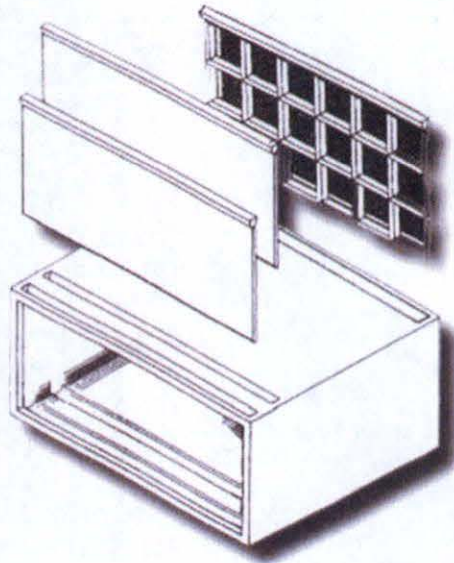


FIGURE 1—FLOOD FLAPS[®] FLOOD VENT