

DEPARTMENT OF HOMELAND SECURITY  
Federal Emergency Management Agency  
**ELEVATION CERTIFICATE**

**IMPORTANT: FOLLOW THE INSTRUCTIONS ON PAGES 9-16**

OMB Control Number: 1680-0008  
Expiration: 11/30/2018

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				FORM INSURANCE COMPANY USE	
A1. Building Owner's Name Landmark 24 Homes				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 622 Wyndham Way				Company NAIC Number:	
City	Pooler	State	Georgia	Zip Code	31322
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Lot 481, Forest Lakes, Phase 2, 8th G.M. District, City of Pooler, Chatham County, Georgia, PIN: 5-1014C-01-115 (SMB 38S, Page 87A-B)					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)					
A5. Latitude/Longitude: Lat. 31.1460 Long. -81.2737 Horizontal Datum: <input type="radio"/> NAD 1927 <input checked="" type="radio"/> 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 1B					
A8. For a building with a crawlspace or enclosure(s):			A9. For a building with an attached garage:		
a) Square footage of crawlspace or enclosure(s)	N/A	sq ft	a) Square footage of attached garage	705	sq ft
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade	N/A		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade	4	
c) Total net area of flood openings in A8.b	N/A	sq in	c) Total net area of flood openings in A9.b	896	sq in
d) Engineered flood openings?	<input type="radio"/> Yes <input checked="" type="radio"/> No		d) Engineered flood openings?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number City of Pooler 130261			B2. County Name Chatham		B3. State Georgia
B4. Map/Panel Number 13051C0019	B5. Suffix H	B6. FIRM Index Date July 7, 2014	B7. FIRM Panel Effective/Revised Date July 7, 2014	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 20.0' + 1.0' Freeboard
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="radio"/> FIS Profile <input checked="" type="radio"/> FIRM <input type="radio"/> Community Determined <input type="radio"/> Other/Source:					
B11. Indicate elevation datum used for BFE in Item B9: <input type="radio"/> NGVD 1929 <input checked="" type="radio"/> NAVD 1988 <input type="radio"/> Other/Source:					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="radio"/> Yes <input checked="" type="radio"/> No Designation Date: <input type="radio"/> CBRS <input type="radio"/> OPA					
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
C1. Building elevations are based on: <input type="radio"/> Construction Drawings* <input type="radio"/> Building Under Construction* <input checked="" type="radio"/> Finished Construction					
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. * A new Elevation Certificate will be required when construction of the building is complete.					
Benchmark Utilized: Local Vertical Datum: NAVD 88					
Indicate elevation datum used for the elevations in items a) through h) below. <input type="radio"/> NGVD 1929 <input checked="" type="radio"/> NAVD 1988 <input type="radio"/> 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)	21.5		<input checked="" type="radio"/> feet	<input type="radio"/> meters	
b) Top of the next higher floor	32.0		<input checked="" type="radio"/> feet	<input type="radio"/> meters	
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A		<input type="radio"/> feet	<input type="radio"/> meters	
d) Attached garage (top of slab)	17.2		<input checked="" type="radio"/> feet	<input type="radio"/> meters	
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	21.6		<input checked="" type="radio"/> feet	<input type="radio"/> meters	
f) Lowest adjacent (finished) grade next to building (LAG)	16.2		<input checked="" type="radio"/> feet	<input type="radio"/> meters	
g) Highest adjacent (finished) grade next to building (HAG)	16.3		<input checked="" type="radio"/> feet	<input type="radio"/> meters	
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	N/A		<input type="radio"/> feet	<input type="radio"/> meters	

# ELEVATION CERTIFICATE

OMB Control Number: 1660-0008  
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SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION				
<p>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.</p>				
<input checked="" type="checkbox"/> Check here if attachments.		Were latitude and longitude in Section A provided by a licensed land surveyor? <input checked="" type="radio"/> Yes <input type="radio"/> No		
Certifier's Name Terry M. Coleman		License Number GA# 2486		
Title Professional Surveyor		Company Name Coleman-Company, Inc.		
Address 17 Park of Commerce, Suite 201		City Savannah	State GA	Zip Code 31405
Signature 		Date 12/30/16	Telephone (912)200-3041	
Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.				
Comments (Including type of equipment and location, per C2(e), if applicable)				
Section A9d: Garage vented by (4) engineered vents (USA Foundation Flood Air Vents, model ROAL). See attached certification. Section B9: 1' (one foot) freeboard is required by the City of Pooler Flood Damage Prevention Ordinance. Section C2: Benchmark utilized was BM-1 from Subdivision Map Book 50-S, Page 60. Section C2e: Lowest elevation of machinery servicing building is top of HVAC compressor pad.				
Signature 		Date 12/30/16		
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 _____ - _____ <input type="radio"/> feet <input type="radio"/> meters <input type="checkbox"/> above or <input type="checkbox"/> below the HAG.				
b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ - _____ <input type="radio"/> feet <input type="radio"/> meters <input type="checkbox"/> above or <input type="checkbox"/> below the LAG.				
E2. For Building Diagrams 6 -9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8 -9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ - _____ <input type="radio"/> feet <input type="radio"/> meters <input type="checkbox"/> above or <input type="checkbox"/> below the HAG.				
E3. Attached garage (top of slab) is _____ - _____ <input type="radio"/> feet <input type="radio"/> meters <input type="checkbox"/> above or <input type="checkbox"/> below the HAG.				
E4. Top of platform of machinery and /or equipment servicing the building is _____ - _____ <input type="radio"/> feet <input type="radio"/> meters <input type="checkbox"/> above or <input type="checkbox"/> 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? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> 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				
				<input type="checkbox"/> Check here if attachments.

**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

Check here if attachments.

### BUILDING PHOTOGRAPHS

See instructions for Item A6

OMB Control Number: 1660-0008  
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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. 622 Wyndham Way			Policy Number:
City Pooler	State Georgia	Zip Code 31322	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.			
FRONT VIEW 12/29/2016		REAR VIEW 12/29/2016	
			
LEFT VIEW 12/29/2016		RIGHT VIEW 12/29/2016	
			
VENT 12/29/2016			
			



## Code Compliance Research Report CCRR-0239

Issue Date: 01-18-2016  
Renewal Date: 01-18-2017

Valued Quality. Delivered.

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

USA Floodair Vents, LTD.  
63 Putnam Street, Suite 202  
Saratoga Springs, New York 12866  
(631) 269-1872  
[www.usafloodairvents.com](http://www.usafloodairvents.com)

### REPORT SUBJECT:

*Model FOSS (Stainless steel flood vent)*  
*Model FASS (Stainless steel flood vent with ventilation)*  
*Model FOAL (Aluminum flood vent)*  
*Model FAAL (Aluminum flood vent with ventilation)*  
*Model ROAL (Retro-fit Aluminum flood vent)*

### 1.0 SCOPE OF EVALUATION

This research report addresses compliance with the following Codes:

- 2012 International Building Code (IBC)
- 2012 International Resident Code (IRC)
- 2014 Florida Building Code (FBC)

Foundation Flood Vents have been evaluated for the following properties:

- Physical Operation
- Water Flow
- Ventilation

### 2.0 USES

2.1. *USA Floodair Vents* units are flood vents that operate on hydrostatic pressure to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit for flood waters. These vents have been established in use where flood areas have been established in accordance with IBC Section 1612.3 or IRC Section R3222.1. Some *USA Floodair Vents* models have perforated doors to provide air ventilation in a crawl space in order to increase air flow

while still providing flood protection in accordance with Section 1203.3.1 of the IBC or Section 408.2 of the IRC. See Ventilation in the Description Section for clarification.

### 3.0 DESCRIPTION

3.1. General: The *USA Floodair Vents* units are engineered openings when subjected to a hydrostatic force to open to allow flood waters to flow through the vent in order to equalize hydrostatic flood forces on the exterior walls. The solid or perforated doors swing open, disengaging from the bottom of the frame, allowing flood waters to flow through the frame. Each unit is fabricated from either stainless steel or aluminum. *USA Floodair Vents* models consist of two parts, a frame and a vent door.

3.2. Engineered Opening: The *USA Floodair Vents* units comply with the design principle noted in Section 2.6.2.2 of ASCE/SEI 24 for a maximum rate of rise and fall of 5.0 feet per hour (0.423 mm/s). In order to comply with the engineered opening requirements of ASCE/SEI 24, the *USA Floodair Vents* units must be installed in accordance with Section 4.0 of this report.

3.3. Model Sizes: Models FOSS, a stainless steel flood vent with no ventilation, measures 18 inches wide by 10 inches high (See Figure 1). Model FASS, a stainless steel flood vent with ventilation, measures 18 inches wide by 10 inches high (See Figure 2). Model FOAL, an aluminum flood vent with no ventilation, measures 18 inches wide by 10 inches high (See Figure 3). Model FAAL, an aluminum flood vent with ventilation, measures 18 inches wide by 10 inch high (See Figure 4). Model ROAL, an aluminum flood vent used for retrofitting with no ventilation, measures 16.37 inches wide by 10 inches high (See Figure 5).

3.4. Ventilation: The *USA Floodair Vents* models FASS and FAAL have ¼ inch diameter openings on the vent doors to provide air ventilation. Model FASS provides 28 square inches of net free area. Model FAAL provides 37 square inches of net free area. All other models in this report do not provide ventilation.



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[www.intertek.com/building/](http://www.intertek.com/building/)





#### 4.0 INSTALLATION AND PERFORMANCE

4.1. *USA Floodair Vents* units are to be installed in exterior walls in new and existing construction. Model ROAL is to be used for existing construction. Flood vents shall be installed in accordance with the manufacturer's instructions, the applicable code and this report. To meet the engineered opening design requirements found in Section 2.6.2.2 of ASCE/SEI 24, the *USA Floodair Vents* units must be installed as follows:

4.1.1. A minimum of two bi-directional flood vents are required for enclosed flood exposed areas and to be installed on opposite or adjacent walls.

4.1.2. Below the base flood elevation.

4.1.3. With the bottom of the *USA Floodair Vents* unit located at a maximum of 12 inches above grade.

4.1.4. With a minimum of one *USA Floodair Vents* unit for every 252 square feet for Models FOSS, FASS, FOAL, and FAAL and for every 224 square feet for Model ROAL.

#### 5.0 SUPPORTING EVIDENCE

5.1. Manufacturer's drawings and installation instructions.

5.2. Reports of testing in accordance with ICC-ES AC364, Acceptance Criteria for Automatic Foundation Flood Vents, dated Approved October 2013. The reports of testing and engineering analysis demonstrating compliance with the performance requirements of AC364 and ASCE/SEI 24-05 (ASCE/SEI 24-14 for 2014 FBC).

5.3. Quality control manual in accordance with ICC-ES AC10, Acceptance Criteria for Quality Documentation, dated June 2014.

#### 6.0 CONDITION OF USE

The *USA Floodair Vents* units applications identified in this report are deemed to comply with the intent of the provisions of the referenced building codes subject to the following conditions:

6.1. Installation shall be in accordance with the manufacturer's installation instructions and this report. Where the difference occur between this report and the manufacturer's installation instructions, this report shall govern.

6.2. The *USA Floodair Vents* units 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.

6.3. All products are manufactured in West Columbia, South Carolina by *USA Floodair Vents, LTD* in accordance with the manufacturer's approved quality control system with inspections by Intertek (IAS AA-676).

#### 7.0 IDENTIFICATION

*USA Floodair Vents* units produced in accordance with this report shall be identified with labeling on the individual vents and/or packaging that includes the following information:

7.1. Name and/or trademark of manufacturer;

7.2. The Intertek Code Compliance Research Report mark and number (CCRR-0239).



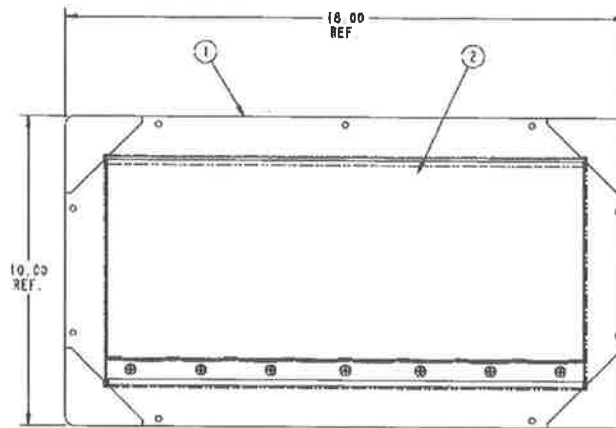
This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

**8.0 CODE COMPLIANCE RESEARCH REPORT USE**

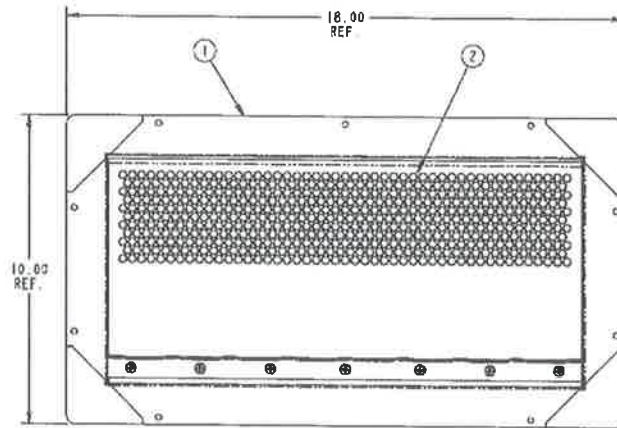
8.1. Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

8.2. Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Architectural Testing.

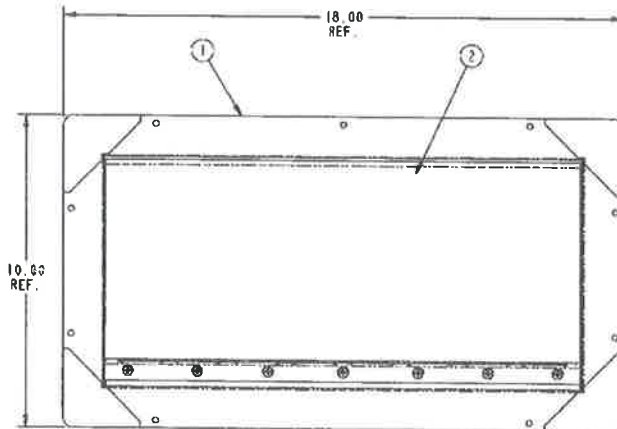
8.3. Reference to the Intertek website address: [whdirectory.intertek.com](http://whdirectory.intertek.com) is recommended to ascertain the current version and status of this report.



**FIGURE 1 – FOSS Flood Vent**

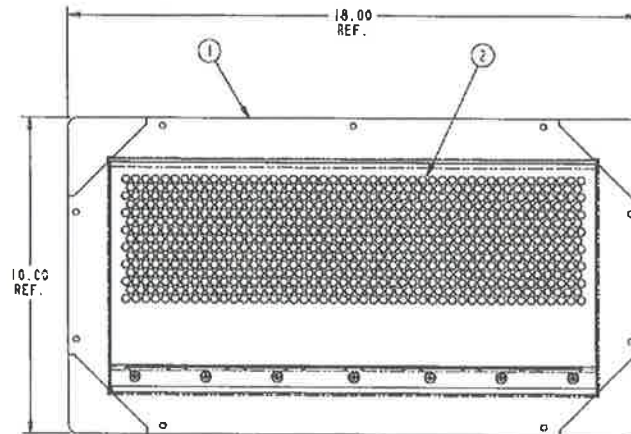


**FIGURE 2 – FASS Flood Vent**

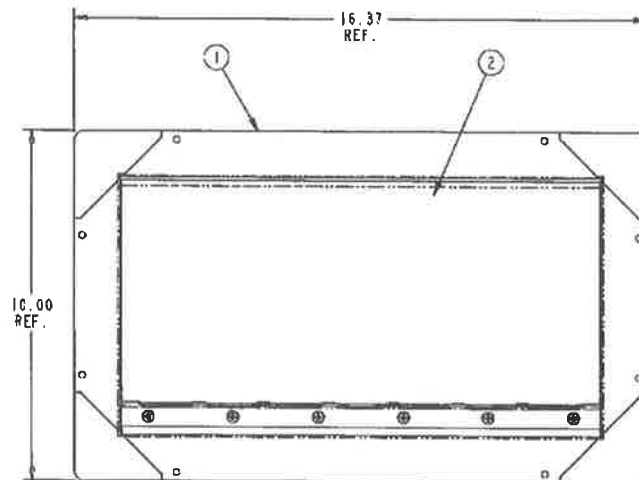


**FIGURE 3 – FOAL Flood Vent**





**FIGURE 4 – FAAL Flood Vent**



**FIGURE 5 – ROAL Flood Vent**