U.S. DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
National Flood Insurance Program

ELEVATION CERTIFICATE

Important: Read the instructions on pages 1–9.

OMB No. 1660-0008
Expiration Date: July 31, 2015

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE
Policy Number:
Company NAIC Number:

RECEIVED
SEP 29 2015
CONSTRUCTION DEPARTMENT
CITY OF NORTH WILDWOOD

A1. Building Owner's Name AD-AL, LLC

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
106 East 4th Avenue

City City of North Wildwood State NJ ZIP Code 08260

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Block 216 Lot 18

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) Residential

A5. Latitude/Longitude: Lat. 39°00'21.2" Long. 74°47'44.3" Horizontal Datum: ☐ NAD 1927 ☒ 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 8

A8. For a building with a crawlspace or enclosure(s):
- a) Square footage of crawlspace or enclosure(s) 1213 sq ft
- b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 6
- c) Total net area of flood openings in A8.b 1578 sq in
- d) Engineered flood openings? ☒ Yes ☐ No

A9. For a building with an attached garage:
- a) Square footage of attached garage 352 sq ft
- b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade 3
- c) Total net area of flood openings in A9.b 789 sq in
- d) Engineered flood openings? ☒ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
City of North Wildwood 345308	Cape May	NJ

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)
345308 0001	E	n/a	July 20, 1998	AE	10

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other/Source: _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: _____ ☐ CBRS ☐ OPA

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: Local Control Vertical Datum: N.A.V.D 1988
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)	7.3	☒ feet	☐ meters
b) Top of the next higher floor	12.5	☒ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	n.a	☐ feet	☐ meters
d) Attached garage (top of slab)	7.0	☒ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	12.2	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	7.0	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	7.3	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	6.4	☒ feet	☐ 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.*

☒ Check here if comments are provided on back of form.
☒ Check here if attachments.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No

PLACE SEAL HERE

Certifier's Name Stephen C. Martinelli License Number 30089
Title P.L.S. Company Name Stephen C.Martinelli Land Surveying
Address 1217 S.Shore Road Suite 106 City Ocean View State NJ ZIP Code 08230
Signature Date 06-16-15 Telephone 609-390-9618

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. 106 East 4th Avenue	Policy Number:
City City of North Wildwood State NJ ZIP Code 08260	Company NAIC Number:

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

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

Comments There are 6 USA Vents Model #FA-316 located in the crawl space of the building, and (3) USA Vents Model #FA-316 in the garage. (See attached documents) . Lowest machiney is the A/C units located on a raised platform outside the Building,
The Conversion from NGVD 29' to NAVD 88' Datum is -1.3'. Preliminary Firm Map from FEMA Flood Zone (AE9).

CHK By:SCM (FJS)

Signature Date 06-16-15

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 8–9 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's or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

☐ 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

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.

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

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 106 East 4th Avenue	FOR INSURANCE COMPANY USE Policy Number:
City City of North Wildwood State NJ ZIP Code 08260	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 6-15-15

Rear View 6-15-15

Smart Vent 6-15-15

A/C Units 6-15-15

DIAGRAM 7

All buildings elevated on full-story foundation walls with a partially or fully enclosed area below the elevated floor. This includes walkout levels, where at least 1 side is at or above grade. The principal use of this building is located in the elevated floors of the building.

Distinguishing Feature – For all zones, the area below the elevated floor is enclosed, either partially or fully. In A Zones, the partially or fully enclosed area below the elevated floor is with or without openings** present in the walls of the enclosure. Indicate information about enclosure size and openings in Section A – Property Information.

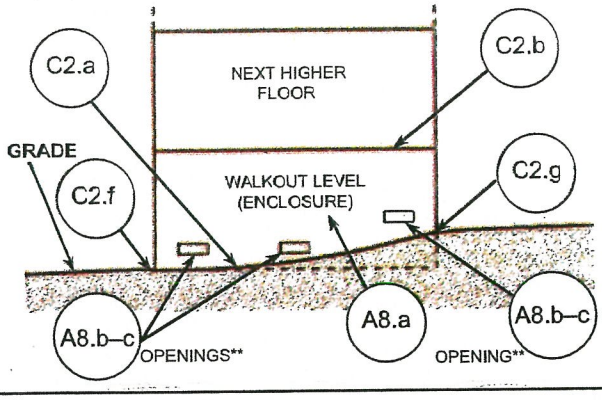


DIAGRAM 8

All buildings elevated on a crawlspace with the floor of the crawlspace at or above grade on at least 1 side, with or without an attached garage.

Distinguishing Feature – For all zones, the area below the first floor is enclosed by solid or partial perimeter walls. In all A zones, the crawlspace is with or without openings** present in the walls of the crawlspace. Indicate information about crawlspace size and openings in Section A – Property Information.

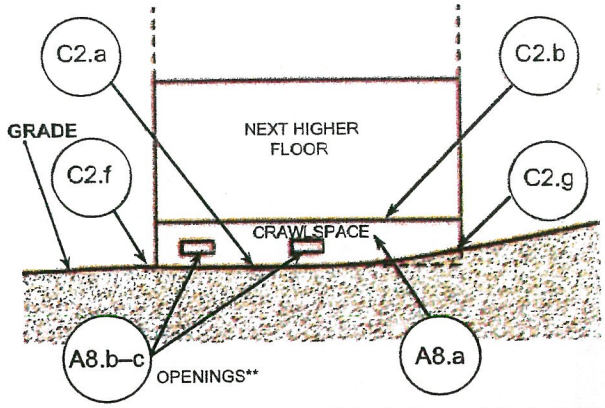
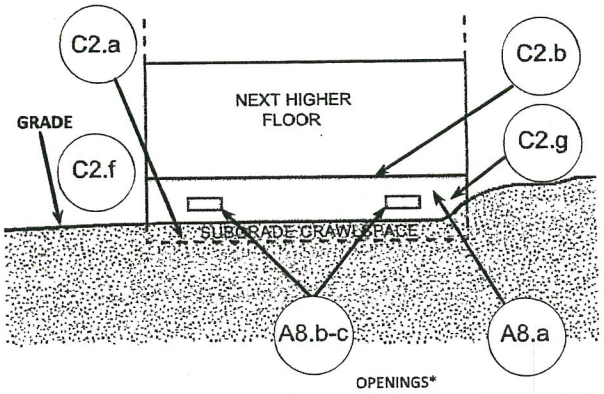


DIAGRAM 9

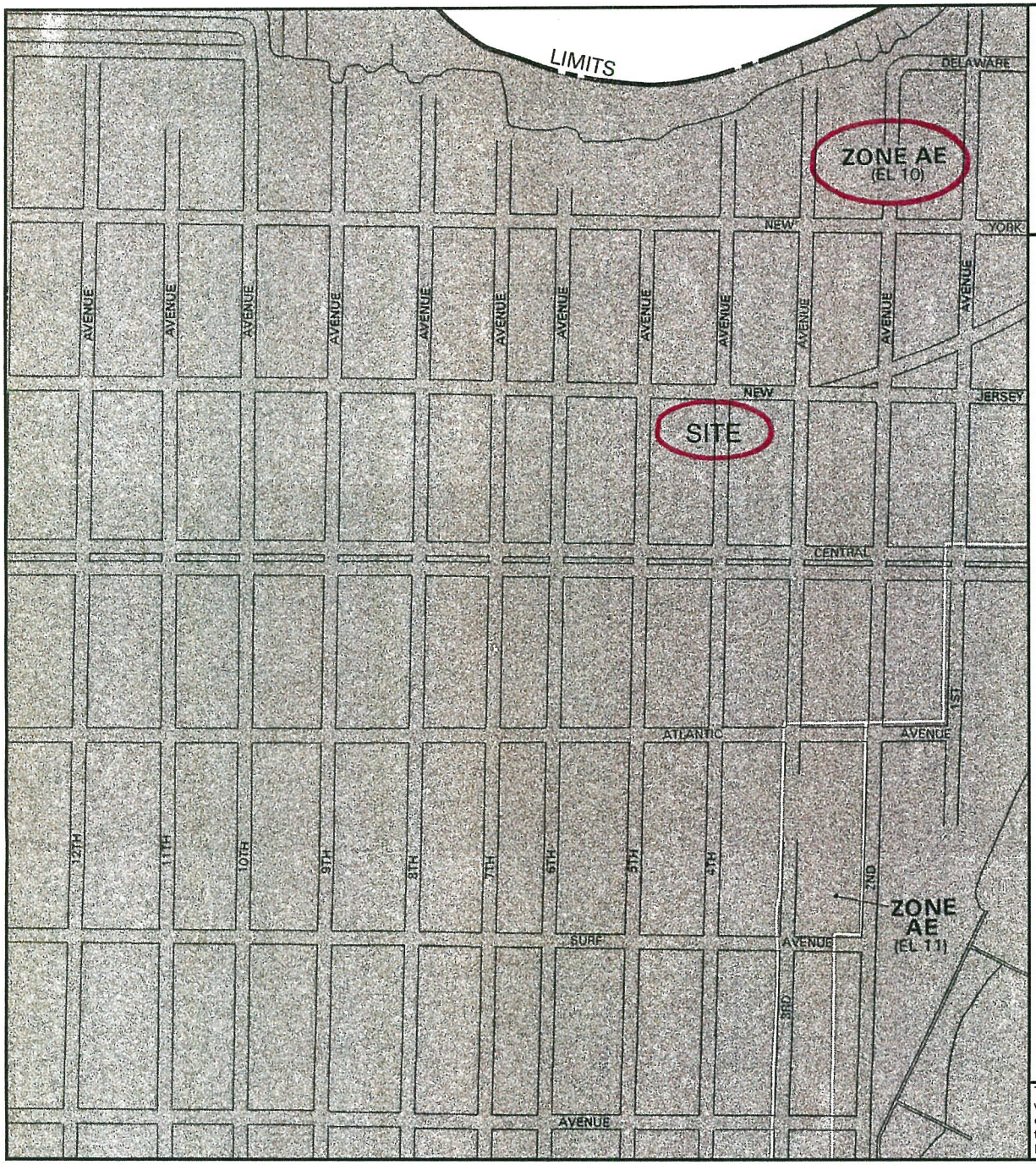
All buildings (other than split-level) elevated on a sub-grade crawlspace, with or without attached garage.

Distinguishing Feature – The bottom (crawlspace) floor is below ground level (grade) on all sides.* (If the distance from the crawlspace floor to the top of the next higher floor is more than 5 feet, or the crawlspace floor is more than 2 feet below the grade [LAG] on all sides, use Diagram 2.)



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

** An "opening" is a permanent opening that allows for the free passage of water automatically in both directions without human intervention. Under the NFIP, a minimum of 2 openings is required for enclosures or crawlspaces. The openings shall provide a total net area of not less than 1 square inch for every square foot of area enclosed, excluding any bars, louvers, or other covers of the opening. Alternatively, an Individual Engineered Flood Openings Certification or an Evaluation Report issued by the International Code Council Evaluation Service (ICC ES) must be submitted to document that the design of the openings will allow for the automatic equalization of hydrostatic flood forces on exterior walls. A window, a door, or a garage door is not considered an opening; openings may be installed in doors. Openings shall be on at least 2 sides of the enclosed area. If a building has more than 1 enclosed area, each area must have openings to allow floodwater to directly enter. The bottom of the openings must be no higher than 1.0 foot above the higher of the exterior or interior grade or floor immediately below the opening. For more guidance on openings, see NFIP Technical Bulletin 1.



APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
NORTH WILDWOOD,
NEW JERSEY
CAPE MAY COUNTY

ONLY PANEL PRINTED

- NOTE -

THIS MAP INCORPORATES APPROXIMATE BOUNDARIES OF COASTAL BARRIER RESOURCES SYSTEM UNITS AND/OR OTHERWISE PROTECTED AREAS ESTABLISHED UNDER THE COASTAL BARRIER IMPROVEMENT ACT OF 1990 (PL 101-591).

COMMUNITY-PANEL NUMBER
345308 0001 E

MAP REVISED:
JULY 20, 1998

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

City of
North Wildwood
345308
ZONE AE
(EL 9)
1ST AV
NEW YORK AV
JFK BLVD
621
3RD AV
4TH AV
5TH AV
6TH AV
7TH AV
8TH AV
CENTRAL AVE
3RD AV
4TH AV
5TH AV
6TH AV
7TH AV
8TH AV
ATLANTIC AVE
10TH AVE

FEET

METERS

150 0 150 300

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0243F

FIRM

FLOOD INSURANCE RATE MAP

CAPE MAY COUNTY, NEW JERSEY

(ALL JURISDICTIONS)

PANEL 243 OF 311

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MIDDLE, TOWNSHIP OF	340154	0243	F
NORTH WILDWOOD, CITY OF	345308	0243	F
STONE HARBOR, BOROUGH OF	345323	0243	F

- NOTE -

THIS MAP INCLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES SYSTEM ESTABLISHED UNDER THE COASTAL BARRIER RESOURCES ACT OF 1982 AND/OR SUBSEQUENT ENABLING LEGISLATION.

REVISED PRELIMINARY
JANUARY 30, 2015

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
34009C0243F

EFFECTIVE DATE

Federal Emergency Management Agency

Certification of Engineered Flood Openings

In accordance with NFIP, FEMA Technical Bulletin 1-08 and ASCE/SEI 24-05

Certification Statement

I hereby certify that the flood vents manufactured by **USA Foundation Flood Air Vents** (Model No's FO-316, FA-316, FOAL, FAAL, RFPC and RFSS) are designed in accordance with the requirements of the 2011 NFIP "Flood Insurance Manual" to provide automatic equalization of hydrostatic flood loads on exterior walls by allowing the automatic entry and exit of floodwaters during floods up to and including the base 100-year flood. The flood vents must be installed and sized properly as set forth by the requirements below. This certification follows the design requirements and specifications that are established in FEMA Technical Bulletin 1-08 and ASCE/SEI 24-05.

Design Characteristics

I hereby certify that I have measured the flood vent models listed below. I have also calculated the maximum total enclosed area that can be served by each individual model based on the net area of the opening using the equation taken from ASCE/SEI 24-05, Section 2.6.2.2 and the following design assumptions listed below.

Design Assumptions:

1. The rates of rise and fall have been assumed to be 5 feet per hour.
2. The maximum difference between the exterior and interior floodwater levels have been assumed to be 1 foot during base flood conditions.
3. A factor of safety of 5 has been used in the design.

Area of Engineered Openings per ASCE 24, Section 2.6.2.2

$A_o = (0.0333)[1/c]R(A_e) \rightarrow Ae = Ao / [(0.0333)[1/c]R]$

Where:

A_o =	Total Net Area of Openings Required (in^2)
0.033 =	Coefficient Corresponding to a Factor of Safety of 5.0 ($in^2 \cdot hr/ft^3$)
c =	Opening Coefficient (Non-Dimensional; see ASCE 24, Table 2-2)
R =	Worst Case Rate of Rise and Fall (ft/hr)
A_e =	Total Enclosed Area (ft^2)

Maximum Area Coverage in Square Feet per Vent for each Model

Model	Height (in.)	Width (in.)	A_o ($in.^2$)	Constant ($in^2 \cdot hr/ft^3$)	c	R (ft/hr)	A_e^* (ft^2)
FO-316	7.00	15.50	108.50	0.0330	0.400	5	**263**
FA-316	7.00	15.50	108.50	0.0330	0.400	5	**263**
FOAL-W	7.00	15.50	108.50	0.0330	0.400	5	**263**
FOAL-B	7.00	15.50	108.50	0.0330	0.400	5	**263**
FOAL-G	7.00	15.50	108.50	0.0330	0.400	5	**263**
FAAL-W	7.00	15.50	108.50	0.0330	0.400	5	**263**
FAAL-B	7.00	15.50	108.50	0.0330	0.400	5	**263**
FAAL-G	7.00	15.50	108.50	0.0330	0.400	5	**263**
RFPC	7.00	13.75	96.25	0.0330	0.398	5	**232**
RFSS	7.00	13.75	96.25	0.0330	0.398	5	**232**

**Note: (A_e) is the maximum total enclosed area that can be served for each individual model based on the net area of the opening (A_o)*

Limitations and Installation Requirements

This certification will be voided in it's entirety if the following installation requirements and limitations are not enforced. USA Foundation Flood Air Vents and Conn Engineering Consultants, Inc. do not recommend or authorize any modifications to the flood vents and will not be held liable for improper installation or modification of the flood vents.

FEMA/ NFIP Limitations and Installation Requirements:

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
2. The bottom of all openings shall be no higher than one foot above grade that is immediately under each opening.
3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
4. It is recommended that openings be reasonably distributed around the perimeter of the enclosed area unless there is clear justification for putting all openings on just one or two sides (such as in townhouses or buildings set into sloping sites).
5. Where analysis indicates rates of rise and fall greater than 5 feet per hour, the total enclosed area shall be reduced accordingly.

Design Professional

Name / Title:	Jason M. Conn, P.E. President, Conn Engineering Consultants, Inc.
Address:	107 N. Bridge St., Linden, MI 48451
License Type:	Professional Engineer
State:	**New Jersey**
License Number:	**24GE04573000**

Installation Address

Customer and Installation Address:

106 East 4th Avenue
North Wildwood, NJ 08260

Model Installed

Model Number: **FA-316**

Maximum total enclosed area that can be served for **EACH** individual vent: **263 Square Feet**

Professional Engineering Seal

STATE OF NEW JERSEY
JASON M. CONN
No. 24GE04573000
LICENSED PROFESSIONAL ENGINEER

Certification Date: 6/16/2015