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

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

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

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 SHELLER		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.0 Box No. 104 S CLARENDON AVENUE). Route and	Company NAIC Number:
City State MARGATE New Jersey		ZIP Code 08402
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal DBLOCK 3.02 LOT 9	escription, etc.)	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)	RESIDENTIAL	· · · · · · · · · · · · · · · · · · ·
A5. Latitude/Longitude: Lat. 39.19'48" Long. 74.29'38"	Horizontal Datum	: ☐ NAD 1927 ⊠ NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used	to obtain flood insura	nce.
A7. Building Diagram Number7_		
A8. For a building with a crawlspace or enclosure(s):		
a) Square footage of crawlspace or enclosure(s)sq ft		
b) Number of permanent flood openings in the crawlspace or enclosure(s)	within 1.0 foot above	adjacent grade5
c) Total net area of flood openings in A8.b1,025 sq in		
d) Engineered flood openings? 🗵 Yes 🗌 No		
A9. For a building with an attached garage:		
a) Square footage of attached garage sq ft		
b) Number of permanent flood openings in the attached garage within 1.0 f	oot above adjacent gi	rade 2
c) Total net area of flood openings in A9.b 410 sq in		1
d) Engineered flood openings? 🗵 Yes 🗌 No		
SECTION B – FLOOD INSURANCE RATE MAR		
B1. NFIP Community Name & Community Number MARGATE 345304 B2. County Nam ATLANTIC	e	B3. State New Jersey
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)
34001C0453 F 08/28/2018 08/28/2018	AE	10.00'
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood of	lepth entered in Item	B9:
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source:		
B11. Indicate elevation datum used for BFE in Item B9: NGVD 1929 N	AVD 1988	er/Source:
B12. Is the building located in a Coastal Barrier Resources System (CBRS) are	a or Otherwise Protec	oted Area (OPA)? ☐ Yes ※ No
Designation Date: CBRS OPA		
	· .	

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IMPORTANT: In these spaces, copy the corresponding information from Secti	FOR INSURANCE COMPANY USE	
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route 104 S CLARENDON AVENUE	Policy Number:	
City State ZIP Co MARGATE New Jersey 08402		Company NAIC Number
SECTION C – BUILDING ELEVATION INFORMATION	ON (SURVEY RE	EQUIRED)
3	ng Under Constru	action* X Finished Construction
*A new Elevation Certificate will be required when construction of the building C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE)	•	AE AB/A1 A20 AB/AU AB/AO
Complete Items C2.a—h below according to the building diagram specified in Benchmark Utilized: RM-3 Vertical Datum: N	Item A7. In Puerto	
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 BFI	E.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor) _	8, 28	Check the measurement used.
b) Top of the next higher floor	 16 _. 76	X feet meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	X feet meters
d) Attached garage (top of slab)	8. 28	X feet meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) Output Describe type of equipment and location in Comments.	<u>15</u> . <u>70</u>	X feet meters
f) Lowest adjacent (finished) grade next to building (LAG)	7. 88	X feet meters
g) Highest adjacent (finished) grade next to building (HAG)	<u>8</u> . <u>36</u>	x feet meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	7. 94	X feet meters
SECTION D – SURVEYOR, ENGINEER, OR ARCH	IITECT CERTIFI	CATION
This certification is to be signed and sealed by a land surveyor, engineer, or archit I certify that the information on this Certificate represents my best efforts to interpresent may be punishable by fine or imprisonment under 18 U.S. Code, Sectio	ret the data availa	law to certify elevation information. ble. I understand that any false
	⊠Yes □ No	
Certifier's Name License Number DANIEL J. PONZIO, SR. GS37603		
Title	•	
PROFESSIONAL LAND SURVEYOR		Place
Company Name ARTHUR W. PONZIO CO. & ASSOC., INC.		Seal
Address	<u> </u>	Here
400 NORTH DOVER AVENUE		
	ZIP Code 08401	
	Telephone (609) 344-8194	
Copy all pages of this Elevation Certificate and all attachments for (1) community offici	ial, (2) insurance a	agent/company, and (3) building owner.
Comments (including type of equipment and location, per C2(e), if applicable)		
PROJECT # 34296 AIR HANDLER & HEATER = 15.70' DUCT - 15.70' FLOOD VENTS ARE CRAWL SPACE DOOR SYST		205 SQ FT EACH

ELEVATION CERTIFICATE

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IMPORTANT: In these spaces, co	opy the corresponding informat	tion from Section A.	FOR INSURA	NCE COMPANY USE
Building Street Address (including 104 S CLARENDON AVENUE	Apt., Unit, Suite, and/or Bldg. No.	.) or P.O. Route and Box No		
City	State	ZIP Code	Company NAI	C Number
MARGATE	New Jersey	08402		•
SECTION	N E – BUILDING ELEVATION IN FOR ZONE AO AND Z	NFORMATION (SURVEY I ZONE A (WITHOUT BFE)	NOT REQUIRED)	
For Zones AO and A (without BFE complete Sections A, B,and C. Fo enter meters. E1. Provide elevation information	r Items E1–E4, use natural grade,	, if available. Check the mea	surement used. In F	Puerto Rico only,
	IAG) and the lowest adjacent grad			above of below
crawlspace, or enclosure) b) Top of bottom floor (includ		feetn	neters 🗌 above o	r 🗌 below the HAG.
crawlspace, or enclosure)		feet m	neters 🔲 above o	r 🗌 below the LAG.
E2. For Building Diagrams 6–9 wi the next higher floor (elevation		vided in Section A Items 8 ar	nd/or 9 (see pages 1	–2 of Instructions),
the diagrams) of the building i		feet n	neters 🔲 above o	r □ below the HAG.
E3. Attached garage (top of slab)		feet n	neters 🔲 above o	r 🗌 below the HAG.
E4. Top of platform of machinery servicing the building is	and/or equipment	feet	neters	r Delow the HAG.
E5. Zone AO only: If no flood deptifloodplain management ordina				
SECTION F	- PROPERTY OWNER (OR OW		· · · · · · · · · · · · · · · · · · ·	
SECTION	- FROFERTT OWNER (OR OW	WILK 5 REFRESENTATIVE	-) CENTIFICATION	
The property owner or owner's aut	thorized representative who comp	letes Sections A B and E fo	or Zone A (without a	FEMA issued or
The property owner or owner's aut community-issued BFE) or Zone A	thorized representative who comp O must sign here. The statements	letes Sections A, B, and E fo s in Sections A, B, and E are	or Zone A (without a e correct to the best	FEMA-issued or of my knowledge.
The property owner or owner's aut community-issued BFE) or Zone A Property Owner or Owner's Author	O must sign here. The statements	letes Sections A, B, and E fo s in Sections A, B, and E are	or Zone A (without a e correct to the best	FEMA-issued or of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author	O must sign here. The statements	s in Sections A, B, and E are	e correct to the best	of my knowledge.
community-issued BFE) or Zone A	O must sign here. The statements	letes Sections A, B, and E for s in Sections A, B, and E are	or Zone A (without a ecorrect to the best	FEMA-issued or of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author	O must sign here. The statements	s in Sections A, B, and E are	e correct to the best	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.
community-issued BFE) or Zone A Property Owner or Owner's Author Address Signature	O must sign here. The statements	s in Sections A, B, and E are	State	of my knowledge.

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IMPORTANT: In these spaces, copy the corr	esponding information	from Section A.	FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, S 104 S CLARENDON AVENUE	uite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
City MARGATE	State New Jersey	ZIP Code 08402	Company NAIC Number
SECTION	ON G - COMMUNITY IN	FORMATION (OPTIONAL)	
The local official who is authorized by law or or Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, er	Certificate. Complete th	e community's floodplain ma ne applicable item(s) and sig	anagement ordinance can complete n below. Check the measurement
G1. The information in Section C was tak engineer, or architect who is authoriz data in the Comments area below.)			
G2. A community official completed Sect or Zone AO.	ion E for a building locate	ed in Zone A (without a FEM	A-issued or community-issued BFE)
G3. The following information (Items G4-	-G10) is provided for con	nmunity floodplain managen	nent purposes.
G4. Permit Number	G5. Date Permit Issue		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 of the building:	g basement) ———	fee	t meters Datum
G9. BFE or (in Zone AO) depth of flooding at	the building site:	fee	t meters Datum
G10. Community's design flood elevation:		fee	t meters Datum
Local Official's Name	bplantino	Title	
Community Name	balantino BRIATE	Telephone	2-1744
Signature	0/1	608-38 Date	3/20/5
Comments (including type of equipment and look	ation, per C2(e), if applic	cable)	1-11/
			. •
			Check here if attachments.
			ones. nore in accomments.

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

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Building Street Address (including 104 S CLARENDON AVENUE	Apt., Unit, Suite, and/or Bldg. No.) or	P.O. Route and Box No.	Policy Number:
City	State	ZIP Code	Company NAIC Number
MARGATE	New Jersey	08402	

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.

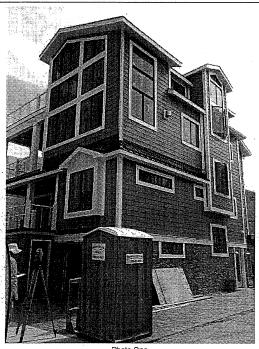


Photo One

Photo One Caption FRONT RIGHT 5/22/19

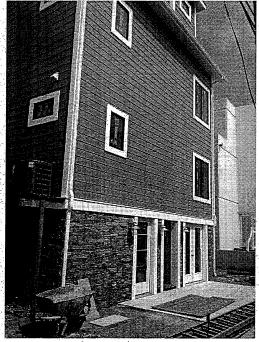


Photo Two

Photo Two Caption REAR 5/22/19

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

Continuation Page

OMB No. 1660-0008

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IMPORTANT: In these spaces, co	FOR INSURANCE COMPANY USE		
Building Street Address (including 104 S CLARENDON AVENUE	Apt., Unit, Suite, and/or Bldg. No.) or	P.O. Route and Box N	No. Policy Number:
City	State	ZIP Code	Company NAIC Number
MARGATE	New Jersey	08402	

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.

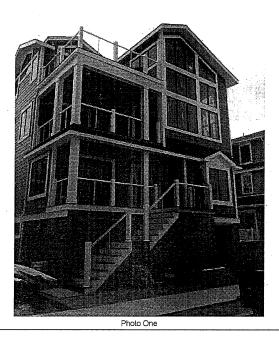


Photo One Caption LEFT SIDE 5/22/19

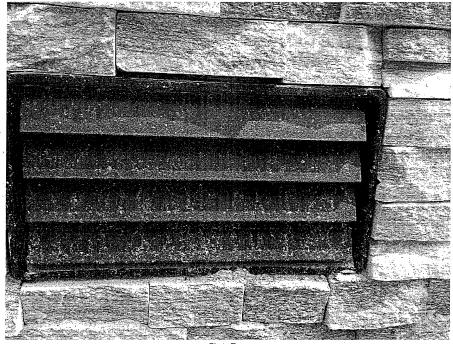


Photo Two

Photo Two Caption CRAWL SPACE DOOR SYSTEMS 8"x16" FLOOD VENT 5/22/19

Plastic - No Rust or Rot Grawlspace Flood Vent for Homes (New Construction & Replacement)

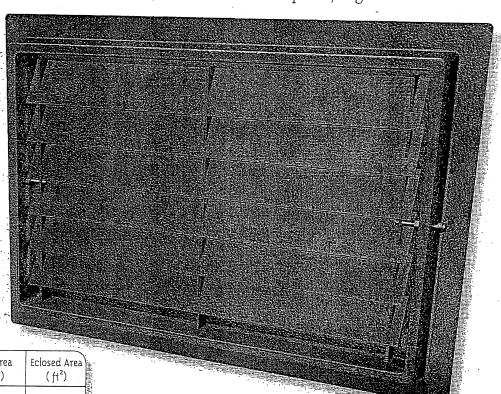
Easy Access • Modular Use • Can Be Painted

Flood Vent (No Cover)

One-piece ventplate with easy to insert vermin screen and fixed louver. Made of durable PVC/ABS plastic (no rust or rot) with a UV retardant treatment. FEMA compliant, engineered certified.

No cover to allow the automatic entry and exit of floodwaters. Quick and easy to install.





	MODEL	HxW (in)	Net Area (in²)	Eclosed Area (ft²)
1	816CS	8 x 16	105	205
	1220CS	12 X 20	235	500
	1232CS	12 X 32	305	645
	1616CS	16 X 16	180	395
	1624CS	16 X 24	310	670
	1632CS	16 X 32	405	835
	2032CS	20 X 32	630	1240
	2424CS	24 X 24	570	1230
	2436CS	24 X 36	850	1765



Crawlspace Doors & Vents Crawlspace Louvers/Screens Engeneered FEMA Flood Vents

Certification of Engineered Flood Openings

In accordance with the Code of Federal Regulations for the National Flood Insurance Program

I hereby certify that the Crawl Space Door Systems flood vents 816CS, 1220CS, 1232CS, 1616CS, 1624CS, 1632CS, 2032CS, 2424CS, and 2436CS are designed are designed in accordance with the requirements of the Code of Federal Regulations for the National Flood Insurance Program (NFIP) to provide automatic equalization of hydrostatic flood forces by allowing for the entry and exit of floodwaters, when properly installed and sized as set forth below. Vent opening measurements were measured and certified by Mr. Christopher Mark Loney, Virginia P.E. NO. 029000. Detailed calculations were prepared as outlined in "Review of certification of Engineered Flood Openings," prepared by Dr. Georg Reichard, Associate Professor of Building Construction, Virginia Tech (available upon request from Crawl Space Door Systems, Inc. billy@crawlspacedoors.com)

Design Characteristics

Section 2.6.2.2 of ASCE/SEI 24-05 provides an equation to determine the required <u>net area</u> of engineered openings $\{A_o\}$ for a given <u>enclosed area</u> $\{A_e\}$. This equation is based on the hydraulic formula for the flow rate across sharp edged orifices. I have utilized this equation to calculate 1) the restricted flow rate through the main frame opening in case the louver is blown out during a flood event; 2) the flow rate through the individual openings between louver blades; and 3) the flow rate through projected openings between louver blades following hydraulic short-tube theory. The maximum total enclosed area $\{A_e\}$ that can be serviced by a single vent has then been determined by utilizing the lowest flow rate of the three assessed scenarios for each vent and is listed in Table 1. These values are based on the following assumptions:

- In absence of reliable data, the rates of rise and fall have been assumed at a minimum rate of 5 feet/hour;
- The (maximum) difference between the exterior and interior floodwater levels shall not exceed 1 foot during base flood conditions;
- A factor of safety of 5 has been assumed, which is consistent with design practices related to protection of life and property;
- The net area of openings (A_o) as provided by the manufacturer.

Installation	Requir	ements and	Limitations

This certification will be voided if the following installation requirements and limitations are not enforced:

- There shall be a minimum of two openings on different sides of each enclosed area subject to flooding;
- The bottom of all openings shall be no higher than one foot above the higher of the interior or exterior grade that is immediately under each opening;
- 16 x 16 1616CS 180 395 1624CS 16 x 24 310 670 1632CS 16 x 32 405 835 20 x 32 630 2032CS 1240 2424CS 24 x 24 570 1230 2436CS 24 x 36 850 1765 Table 1 Maximum total enclosed area (Ae) that can be

HxW

[in]

8 x 16

12 x 20

12 x 32

[in']

105

235

305

 $[ft^2]$

205

500

645

Model -

816CS

1220CS

1232CS

300

- **Table 1** Maximum total <u>enclosed area</u> (A_e) that can be serviced by each individual model based on the given <u>net area</u> of engineered openings (A_o)
- No temporary (e.g. during cold weather) or permanent solid cover may be placed into or over the flood vent that would block the automatic entry or exit of floodwaters at any time;
- Where data or analyses indicate more rapid rates of rise and fall, the required number of openings shall be increased to account
 for those different conditions. The number or size of the openings may be decreased if data or analyses indicate rates of rise
 and fall are less than 5 feet per hour.

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Identification of the Building and Installed Flood Vents (By Others)

The flood vent models marked in Table 1*) are being installed at the following building:

Building Address