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

OMB No. 1660-0008 Expiration Date: November 30, 2022

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 COMPAN				
A1. Building Owner's Name Jeffery John and Cheryl Ann West			Policy Num	ber:
A2. Building Street Address (including Apt., Unit, Suite, and/ Box No. 505 Avenida de Mayo	or Bldg. No.) or	P.O. Route and	Company N	IAIC Number:
City Sarasota	State Florida		ZIP Code 34242	
A3. Property Description (Lot and Block Numbers, Tax Parce Lot 31 and West 1/2 Lot 32, block 11, Sarasota Beach 3rd U			c.)	
A4. Building Use (e.g., Residential, Non-Residential, Addition	n, Accessory, e	etc.) Residentia	al	
A5. Latitude/Longitude: Lat. 27-16-34 N Long.	32-33-36 W	Horizontal	Datum: NAD 1	1927 🔀 NAD 1983
A6. Attach at least 2 photographs of the building if the Certifi	cate is being us	sed to obtain floor	d insurance.	
A7. Building Diagram Number7_				
A8. For a building with a crawlspace or enclosure(s):				
a) Square footage of crawlspace or enclosure(s)	25	508.00 sq ft		
b) Number of permanent flood openings in the crawlspace	e or enclosure((s) within 1.0 foot	above adjacent gra	ade 7
c) Total net area of flood openings in A8.b	3500.00 sq in			
d) Engineered flood openings? X Yes No				
A9. For a building with an attached garage:				
a) Square footage of attached garage	N/A sq ft			
b) Number of permanent flood openings in the attached	garage within 1.	.0 foot above adja	acent grade N/A	
c) Total net area of flood openings in A9.b	N/A sq ir	n		
d) Engineered flood openings?				
SECTION B - FLOOD INSURA	ANCE RATE N	MAP (FIRM) INF	ORMATION	
B1. NFIP Community Name & Community Number	B2. County N			B3. State
Sarasota County 125144	Sarasota			Florida
Number Date Eff		B8. Flood Zone(s)	B9. Base Flood E (Zone AO, use	levation(s) e Base Flood Depth)
12115C0143 F 11-04-2016 11-04-		AE	9	
B10. Indicate the source of the Base Flood Elevation (BFE) of			in Item B9:	
☐ FIS Profile 🔀 FIRM ☐ Community Determined	Other/source	Je		
B11. Indicate elevation datum used for BFE in Item B9:	IGVD 1929 🔀	ो NAVD 1988	Other/Source:	
B12. Is the building located in a Coastal Barrier Resources S	ystem (CBRS) :	area or Otherwise	e Protected Area (C	DPA)? ☐ Yes ☒ No
Designation Date: CBRS	☐ OPA			

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Building Street Address (including Apt., Unit, Suite 505 Avenida de Mayo		Route and Box No.		/ Number:	
City State ZIP Code Company NAIC Number					Number
Sarasota Florida 34242					
SECTION C - BUILD	NG ELEVATION INFOR	MATION (SURVEY R	EQUIR	ED)	
C1. Building elevations are based on: Cor *A new Elevation Certificate will be required C2. Elevations Zones A1-A30, AE, AH, A (with Complete Items C2.a-h below according to Benchmark Utilized: Sarasota Co. R-82	when construction of the b	th BFE), AR, AR/A, AR/ ied in Item A7. In Puert	/AE. AF	 R/A1-A30.	hed Construction AR/AH, AR/AO. meters.
Indicate elevation datum used for the elevati					
☐ NGVD 1929 🗷 NAVD 1988 ☐		Jelow,			
Datum used for building elevations must be t	he same as that used for the	ne BFE.	01		
a) Top of bottom floor (including basement,	orawispago, or analoguro f	201	5.1	eck the me	easurement used. meters
	brawispace, or enclosure in	001)	17.1		_
b) Top of the next higher floor		***************************************		x feet	meters
c) Bottom of the lowest horizontal structural	member (V Zones only)		N/A	∐ feet	meters
d) Attached garage (top of slab)		***	N/A	∐ feet	∐ meters
 e) Lowest elevation of machinery or equipment (Describe type of equipment and location) 	ent servicing the building in Comments)	2	10.8	x feet	meters
 f) Lowest adjacent (finished) grade next to t 	ouilding (LAG)		4.3	x feet	meters
g) Highest adjacent (finished) grade next to	building (HAG)		4.5	x feet	meters
 h) Lowest adjacent grade at lowest elevatior structural support 	ı of deck or stairs, includinç) 	4.6	feet	meters
SECTION D - SURV	EYOR, ENGINEER, OR A	ARCHITECT CERTIFI	CATIO	N	
This certification is to be signed and sealed by a last certify that the information on this Certificate representation may be punishable by fine or imprisonnt	resents my best efforts to it	nterpret the data availa	law to ble. I ui	certify elev	ration information. that any false
Were latitude and longitude in Section A provided		AND THE PERSON NAMED IN COLUMN TWO		Check here	e if attachments.
Certifier's Name	License Number			11.	111111111111111111111111111111111111111
Lawrence R. Weber	PSM 3868			1111	WEBER WY
Title Professional Surveyor & Mapper				4	CATA Die
Company Name Weber Engineering & Surveying, Inc.				THE STATE OF THE S	Salvar !
Address 4596 Ashton Road				馬	eresso
City	Chata	710.0.1.	- \	TI DO	X
Sarasota	State Florida	ZIP Code 34233	5	900	OFESSION AND THE
Signature Wiles	Date Alaska	Telephone (941) 921-3914	Ext.		
Copy all pages of this Elevation Certificate and all att	achments for (1) community	official, (2) insurance a	gent/co	mpany, and	d (3) building owner.
Comments (including type of equipment and location	on, per C2(e), if applicable				3-1-1
A5 - LAT/LONG FROM FEMA INTERACTIVE MAF A8d CRAWL SPACE DOOR SYSTEMS FLOOD C2e- A/C ELEVATED AT REAR OF HOUSE C2hSTAIRS ON LANAI AT POOL DECK		ATED FOR 500 SF EAC	СН		

ELEVATION CERTIFICATE

OMB No. 1660-0008 Expiration Date: November 30, 2022

_	ORTANT: In these spaces, copy the correspond			FOR INSURANCE COMPANY USE
	ding Street Address (including Apt., Unit, Suite, and 05 Avenida de Mayo	d/or Bldg. No.) or P.O.	Route and Box No.	Policy Number:
City Sara			ZIP Code 34242	Company NAIC Number
	SECTION E – BUILDING EL FOR ZONI	EVATION INFORMA E AO AND ZONE A (TION (SURVEY NOT WITHOUT BFE)	REQUIRED)
com	Zones AO and A (without BFE), complete Items E1 plete Sections A, B,and C. For Items E1–E4, use n er meters.	–E5. If the Certificate i latural grade, if availab	s intended to support a le. Check the measure	a LOMA or LOMR-F request, ment used. In Puerto Rico only,
E1.	Provide elevation information for the following and the highest adjacent grade (HAG) and the lowest a a) Top of bottom floor (including basement,	check the appropriate adjacent grade (LAG).	boxes to show whether	r the elevation is above or below
	crawlspace, or enclosure) is b) Top of bottom floor (including basement,	:	feet	rs above or below the HAG.
	crawlspace, or enclosure) is		feet meter	
	For Building Diagrams 6–9 with permanent flood o the next higher floor (elevation C2.b in the diagrams) of the building is	penings provided in Se	ection A Items 8 and/or	
	Attached garage (top of slab) is		leet meter	
E4.	Top of platform of machinery and/or equipment servicing the building is	-	☐ feet ☐ meter	rs
E5.	Zone AO only: If no flood depth number is available		om floor elevated in ac	
	SECTION F - PROPERTY OWN	VER (OR OWNER'S R	EPRESENTATIVE) CI	ERTIFICATION
The comm	property owner or owner's authorized representativ munity-issued BFE) or Zone AO must sign here. Th	re who completes Section e statements in Section	ions A, B, and E for Zo ons A, B, and E are cor	ne A (without a FEMA-issued or rect to the best of my knowledge.
Prop	erty Owner or Owner's Authorized Representative's	s Name		257
Addr	ess	City	Sta	ate ZIP Code
Signa	ature	Date	Те	lephone
Com	ments			
				Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008 Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the cor			FOR INSURANCE COMPANY USE
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City Sarasota	State Florida	ZIP Code 34242	Company NAIC Number
SECT	ION G - COMMUNITY INFOR	RMATION (OPTIONAL)	
The local official who is authorized by law or of Sections A, B, C (or E), and G of this Elevation used in Items G8–G10. In Puerto Rico only, e	on Certificate. Complete the apenter meters.	pplicable item(s) and sign	below. Check the measurement
G1. The information in Section C was ta engineer, or architect who is authoridata in the Comments area below.)	ized by law to certify elevation	information. (Indicate the	e source and date of the elevation
G2. A community official completed Sec or Zone AO.			
G3. The following information (Items G4	G10) is provided for commu	nity floodplain manageme	ent purposes.
G4. Permit Number	G5. Date Permit Issued		Pate Certificate of compliance/Occupancy Issued
G7. This permit has been issued for:	New Construction Subs	stantial Improvement	
G8. Elevation of as-built lowest floor (including of the building:	ng basement)	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	Tele	phone	
Signature	Date	9	
Comments (including type of equipment and lo	cation, per C2(e), if applicable	3)	
			w.
			Check here if attachments.

ELEVATION CERTIFICATE

See Instructions for Item A6.

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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 505 Avenida de Mayo			Policy Number:
City	State	ZIP Code	Company NAIC Number
Sarasota	Florida	34242	

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 4/14/2022

Clear Photo One



Photo Two

Photo Two Caption Right Side 4/14/2022

Clear Photo Two

ELEVATION CERTIFICATE

Continuation Page

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Photo Three

Photo Three Caption Back Side 4/14/2022

Clear Photo Three



Photo Four

Photo Four Caption Left Side 4/14/2022

Clear Photo Four

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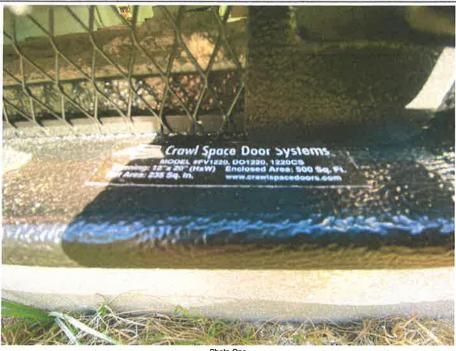


Photo One

Photo One Caption Vent 4/14/2022

Clear Photo One



Photo Two

Photo Two Caption Vent 4/14/2022

Clear Photo Two

ELEVATION CERTIFICATE

Continuation Page

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Sarasota	Florida	34242	

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Photo Three

Photo Three Caption Vent 4/14/2022

Clear Photo Three



Photo Four

Photo Four Caption Vent 4/14/2022

Clear Photo Four

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See Instructions for Item A6.

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Photo Опе

Photo One Caption Vents 4/14/2022

Clear Photo One



Photo Two Caption Vents 4/14/2022 Clear Photo Two

ELEVATION CERTIFICATE

Continuation Page

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IMPORTANT: In these spaces, copy the corresponding information from Section A.FOR INSURANCE COMPANY USEBuilding Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.Policy Number:505 Avenida de MayoStateZIP CodeCityStateZIP CodeSarasotaFlorida34242

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Photo Three

Photo Three Caption Vent 4/14/2022

Clear Photo Three

Photo Four

Photo Four Caption

Clear Photo Four

Certification of Engineered Flood Openings

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

Thereby 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 net area of engineered openings (A_o) for a given enclosed area (Ae). 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 (Ae) 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 (Ao) as provided by the manufacturer.

Installation Requirements 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;
- 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.

*)	Model	H x W [in]	A _o [in ²]	A _e [ft ²]
	816CS	8 x 16	105	205
	1220C5	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
at	2436CS	24 x 36	850	1765

Table 1 Maximum total enclosed area (Ae) that can be serviced by each individual model based on the given net area of engineered openings (Ao)

Certifying Design Professional

Name Title Mechanical Engineer Christopher Mark Loney Company **Innovation Products Company** Address 1675 Meredith Road, Virginia Beach, VA 23455 No. 029000 License License No. 0402029000 **Professional Engineer** Signature: Date: Chi Tu 11/12/17

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:

Plastic - No Rust or Rot Crawlspace Door/Air Vent for Homes (New Construction & Replacement)

Easy Access • Modular Use • Can Be Painted

	MODEL	HXW-(In)	Net Area (in²)
Ø	1220CS	12 X 20	235
A	1 2 32CS	12 X 32	305
	1616CS	16 x 16	180
	1624CS	16 X 2 4	310
	1632CS	16 x 32	405
	2032CS	20 X 32	630
	2424CS	24 X 24	570
	2436CS	24×36	850

Plastic Crawlspace Doors & Vents Plastic Crawlspace Louvers/Screens

Standard Door/Air Vent

Great for new construction and remodeling. One-piece doorplate with easy to insert vermin screen, fixed louver and door lid. Made of durable PVC/ABS plastic (no rust or rot) with a UV retardant treatment. Quick and easy to install.



MODEL	DOOR OPENING - H x W	TOTAL DIMENSION wth APPROXIMATE 3" FRAME
1220CS	12" H x 20" W	17 3/4" H x 26" W
1232CS	12" H x 32" W	17 ³ / ₄ " H × 37 1/2" W
1616CS	16" H x 16" W	21 3/4" H x 21 3/4" W
1624CS	16" H x 24" W	21 3/4" H x 30" W
1632CS	16" H x 32" W	21 3/4" H x 37 1/2" W
2032CS	20" H x 32" W	25 1/2" H x 37 3/4" W
2424CS	24" H x 24" W	29 3/4" H x 30" W
2436CS	24" H x 36" W	29 ³ / ₄ " H x 41 ³ / ₄ " W

- All doors are surface mount meaning they mount over the foundation opening
- Because the frame / flange adds an approximate extra 3 inches around it is okay if your opening is a little smaller or bigger. So, you do not have to make a custom door
- All doors are paintable with a plastic adherent paint. We suggest Krylon Spray Paint and wait an hour then use Krylon Clear Coat for a lasting finish
- The frame / flange can be trimmed if needed since our doors are made of durable ABS Plastic
- All louvered doors come with mounting hardware, frame, screen, louver (vent) and a cover
- To remove the cover or louver just pull the pins out of the left and right side



Plastic Crawlspace Doors & Vents Plastic Crawlspace Louvers/Screens Engineered FEMA Flood Vents