U.S. DEPARTMENT OF HOMELAND SECURITY FODERAL 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

F	SECT	ION A - PROPE	RTY INFORM	IATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name DeROSSI					Policy Number:
A2. Building Street Address (including Ap 510 SNELL COURT	ot., Unit, Suite, and/or E	Bldg. No.) or P.O. R	oute and Box N	lo.	Company NAIC Number:
City MARCO ISLAND		State FL	ZIP Code 3	34145	antical sate of the state of th
A3. Property Description (Lot and Block N LOT 1, BLOCK 387, MARCO BEACH UN		umber, Legal Descr	ription, etc.)		
A4. Building Use (e.g., Residential, Non-F	Residential, Addition, A	ccessory etc.) RES	IDENTIAL		
A5. Latitude/Longitude: Lat. 25° 57' 02.83	"N Long. 81° 44' 22.1	5' ' W			um: ☐ NAD 1927 ⊠ NAD 1983
A6. Attach at least 2 photographs of the b	ouilding if the Certificate	e is being used to ob	otain flood insur	ance.	
A7. Building Diagram Number <u>1-B</u> A8. For a building with a crawlspace or er	nclosure(s):	200 B.7 W	A9 For a h	uilding with an at	tached garage:
Square footage of crawlspace or e		V/A sq ft		uare footage of a	
b) Number of permanent flood opening		.1/6			nt flood openings in the attached garage
or enclosure(s) within 1.0 foot abo c) Total net area of flood openings in		<u>N/A</u> N/A sqin		nin 1.0 foot above	e adjacent grade <u>2</u> od openings in A9.b <u>714</u> sq in
	Yes No	<u>4//</u> 34 III		gineered flood op	
SEC	TION B - FLOOD II	NSURANCE RAT	E MAP (FIRM	I) INFORMATI	ON
B1. NFIP Community Name & Community CITY OF MARCO ISLAND 120426		32. County Name COLLIER		(<u></u>	B3. State FLORIDA
B4. Map/Panel Number B5. Suffix 12021 C 0828 H	B6. FIRM Index Dat 5/16/2012	B7. FIRM Effective/Re 5/16/2	vised Date	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 8.0'
B10. Indicate the source of the Base Flood I	Elevation (BFE) data or	r base flood depth e	ntered in Item I	39.	
☐ FIS Profile ☐ FIRM	☐ Community Determ	mined 🔲 O	ther/Source:		
B11. Indicate elevation datum used for BFE				☐ Other/Source	
B12. Is the building located in a Coastal Bar Designation Date:	rier Resources System		herwise Protect ☐ OPA	ted Area (OPA)?	☐ Yes No
SECTIO	N C – BUILDING EL	EVATION INFO	RMATION (SI	JRVEY REQUI	RED)
C1. Building elevations are based on:	☐ Construction Draw	rings*	Building Under (
*A new Elevation Certificate will be requi 22. Elevations – Zones A1–A30, AE, AH, A (below according to the building diagram	(with BFE), VE, V1-V3	0, V (with BFE), AR	AR/A, AR/AE.	AR/A1-A30, AR	/AH, AR/AO. Complete Items C2.a-h
Benchmark Utilized: SITE		Vertical Datum: NA			
Indicate elevation datum used for the ele Datum used for building elevations must	vations in items a) thro	ugh h) below. DN		NAVD 1988 🗆 (Other/Source:
Datam does for building elevations must	be the same as that as	sed for the Br L.		· Checi	k the measurement used.
a) Top of bottom floor (including basement	nt, crawispace, or enclo	osure floor)	<u>9</u> . <u>1</u>		⊠ feet ☐ meters
b) Top of the next higher floor			<u>N</u> ./A		☐ feet ☐ meters
c) Bottom of the lowest horizontal structu	ral member (V Zones o	only)	<u>N</u> ./A		☐ feet ☐ meters
d) Attached garage (top of slab)		lation or	<u>7.2</u>		☑ feet ☐ meters
 e) Lowest elevation of machinery or equip (Describe type of equipment and locati 		iaing	<u>9.1</u>		☐ feet ☐ meters
f) Lowest adjacent (finished) grade next t			<u>6.2</u>		☑ feet ☐ meters
g) Highest adjacent (finished) grade next	to building (HAG)		<u>6</u> . <u>8</u>		☐ feet ☐ meters
h) Lowest adjacent grade at lowest elevat	tion of deck or stairs, in	cluding structural s			feet meters
SECTIO	N D – SURVEYOR,	ENGINEER, OR	ARCHITECT	CERTIFICATIO	ON
This certification is to be signed and sealed b information. <i>I certify that the information on th</i> I understand that any false statement may be	is Certificate represent	s my best efforts to	interpret the da	ata available.	ion Separation
□ Check here if comments are provided on the comment of t		ere latitude and long			L CATE
Check here if attachments.		ensed land surveyor		□ No	ATRIGO
Certifier's Name ANTONIO TRIGO					- PLS No. 2982
	00.0064)	Licens	e Number PLS	3 2982	10:5
Fitle LAND SURVEYOR	Company Name A. Ti			3 2982	8 2 X
	, ,		ES, INC.	le 34109	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Address 2223 TRADE CENTER WAY	Company Name A. T	RIGO & ASSOCIAT State	ES, INC.	le 34109	The letter of th

IMPORTANT: In these spaces, co	FC	FOR INSURANCE COMPANY US		
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 510 SNELL COURT				plicy Number:
City MARCO ISLAND	State FL	ZIP Code 34	145 Co	ompany NAIC Number:
SECTION [) – SURVEYOR, ENGINEER, OR A	RCHITECT CERT	IFICATION (CON	TINUED)
Copy both sides of this Elevation Certific	ate for (1) community official, (2) insuran	ce agent/company, a	and (3) building own	ner.
	MODEL #2416 D-CERTIFIED FOR 357		2e= A/C PAD	
Signature		Date 11/6/14		=
SECTION E - BUILDING ELEVA	ATION INFORMATION (SURVEY N	OT REQUIRED) F	OR ZONE AO AI	ND ZONE A (WITHOUT BFE)
b) Top of bottom floor (including base) E2. For Building Diagrams 6–9 with per (elevation C2.b in the diagrams) of E3. Attached garage (top of slab) is E4. Top of platform of machinery and/or E5. Zone AO only: If no flood depth nur ordinance? Yes No L	de, if available. Check the measurement e following and check the appropriate bo ent grade (LAG). sement, crawlspace, or enclosure) is sement, crawlspace, or enclosure) is manent flood openings provided in Secti the building is feet	used. In Puerto Ricc xes to show whether fee	et meters above et meters a et meters a et meters a et meters a et below the B et above cordance with the co	bove or below the highest adjacent bove or below the HAG. bove or below the LAG. Instructions), the next higher flood IAG. e or below the HAG. bommunity's floodplain manageme
The property owner or owner's authorized or Zone AO must sign here. The statemen Property Owner's or Owner's Authorized F	representative who completes Sections its in Sections A, B, and E are correct to Representative's Name	A, B, and E for Zone the best of my knowl	A (without a FEMA	
The property owner or owner's authorized or Zone AO must sign here. The statemen	representative who completes Sections its in Sections A, B, and E are correct to	A, B, and E for Zone the best of my knowl	A (without a FEMA	
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The property owner or owner's authorized or Zone AO must sign here. The statemen Property Owner's or Owner's Authorized FAddress Signature	representative who completes Sections its in Sections A, B, and E are correct to Representative's Name	A, B, and E for Zone the best of my knowl	e A (without a FEMA ledge. State	-issued or community-issued BFE
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The property owner or owner's authorized or Zone AO must sign here. The statemen Property Owner's or Owner's Authorized FAddress Signature Comments	representative who completes Sections its in Sections A, B, and E are correct to Representative's Name City Date SECTION G – COMMUNITY INF	A, B, and E for Zone the best of my knowl	State Telephone	ZIP Code ☐ Check here if attachme
The property owner or owner's authorized or Zone AO must sign here. The statement Property Owner's or Owner's Authorized Faddress Signature Comments e local official who is authorized by law or of this Elevation Certificate. Complete the approperty of the information in Section C was is authorized by law to certify elevation. A community official completed Section A community of the communit	representative who completes Sections its in Sections A, B, and E are correct to Representative's Name City Date SECTION G – COMMUNITY INF	ORMATION (OPT oodplain managemer measurement used i been signed and see nd date of the elevati without a FEMA-issu	State Telephone TIONAL) Int ordinance can con in Items G8–G10. In aled by a licensed s ion data in the Comued or community-is	ZIP Code Check here if attachments area below.)
The property owner or owner's authorized or Zone AO must sign here. The statement Property Owner's or Owner's Authorized Faddress Address Signature Comments Le local official who is authorized by law or of this Elevation Certificate. Complete the application in Section C was is authorized by law to certify elevation in Section C was is authorized by law to certify elevation. A community official completed Section C has been dependent on the following information (Items G. 14. Permit Number G. 15.	representative who completes Sections ats in Sections A, B, and E are correct to Representative's Name City Date SECTION G – COMMUNITY INF ordinance to administer the community's flociable item(s) and sign below. Check the taken from other documentation that has ation information. (Indicate the source an ection E for a building located in Zone A (ORMATION (OPT measurement used in been signed and send date of the elevation without a FEMA-issurblain management publish manag	State Telephone TIONAL) Int ordinance can con in Items G8–G10. In aled by a licensed sion data in the Comuled or community-is surposes.	ZIP Code Check here if attachments area below.)
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The property owner or owner's authorized or Zone AO must sign here. The statement Property Owner's or Owner's Authorized Faddress Address Signature Comments Le local official who is authorized by law or of this Elevation Certificate. Complete the application in Section C was a is authorized by law to certify elevation. A community official completed Section in A community official completed Section in The following information (Items Grands 13 - 39 60 / 13 - 39 60	SECTION G – COMMUNITY INF Date SECTION G – COMMUNITY INF Ordinance to administer the community's fluicable item(s) and sign below. Check the taken from other documentation that has ation information. (Indicate the source as ection E for a building located in Zone A (64–G10) is provided for community floods. Date Permit Issued New Construction Substantial ing basement) of the building: at the building site:	ORMATION (OPT OODDIAN	State Telephone TIONAL) Int ordinance can continuous G8—G10. In aled by a licensed store data in the Computed or community-is surposes. Intificate Of Compliant Grant Garden	ZIP Code Check here if attachments area below.) sued BFE) or Zone AO. Ince/Occupancy Issued Lissued BFE attachments area below.)
The property owner or owner's authorized or Zone AO must sign here. The statement Property Owner's or Owner's Authorized Faddress Address Signature Comments The information in Section C was a is authorized by law to certify elever is authorized by law or certify elever is authorized by	SECTION G – COMMUNITY INF Date SECTION G – COMMUNITY INF Ordinance to administer the community's fluicable item(s) and sign below. Check the taken from other documentation that has ation information. (Indicate the source as ection E for a building located in Zone A (64–G10) is provided for community floods. Date Permit Issued New Construction Substantial ing basement) of the building: at the building site:	ORMATION (OPT OODDIAN STEEL STATE OODDIAN STEEL STATE OODDIAN STEEL STATE OODDIAN STEEL STATE OODDIAN STATE OODDIA	State Telephone TIONAL) Int ordinance can continuous of the Computed or community-is curposes. Tifficate Of Compliant of the Computed or community or community of the Computed or community of the Computed or community or community of the Computed or community or	ZIP Code Check here if attachments area below.) sued BFE) or Zone AO. Ince/Occupancy Issued Lissued BFE attachments area below.)

ELEVATION CERTIFICATE, page 3

Building Photographs

See Instructions for Item A6.

IMPORTANT: In these spaces, copy the correspondent	FOR INSURANCE COMPANY USE Policy Number:		
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 510 SNELL COURT			
City MARCO ISLAND	State FL	ZIP Code 34145	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 11/6/14



REAR VIEW 11/6/14

ELEVATION CERTIFICATE, page 4

Building Photographs

Continuation Page

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

FOR INSURANCE COMPANY USE
Policy Number:

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

510 SNELL COURT
City MARCO ISLAND

State FL

ZIP Code 34145

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.



LEFT SIDE VIEW 11/6/14



RIGHT SIDE VIEW 11/6/14

CERTIFICATION OF ENGINEERED FLOOD OPENINGS (FEMA TB-1 August 2008)

I do hereby certify that the **FLOOD SOLUTIONS LLC** Flood Vent properly installed and sized in accordance with Federal Emergency Management Agency's (FEMA's) National Flood Program regulations is designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for entry and exit of floodwater during floods up to and including the base 100-year flood.

I also do hereby certify that I calculated the Non Engineered Net Free Air and Engineered Opening size for each model and size of FLOOD SOLUTIONS LLC flood vents. The results of the calculations are recorded in the table below. The Engineered size opening calculation was performed using the formula in FEMA Technical Bulletin 1 – August 2008, Openings in Foundation Walls for Buildings Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program (NFIP) and ASCE/SEI 24-05, Flood Resistance Design and Construction.

I measured the Non Engineered Net Free Air by calculating the minimum distance between the top blade and the top of the vent times the clear opening width of the vent; plus the minimum distance between the bottom blade and the bottom of the vent the clear opening width of the vent; plus the minimum distance between each blade times the number of spaces between the blades in vent times the clear opening width of the vent.

I used the formula in TB 1 – August 2008 ($A^o = 0.033$ [1/C] RAê) to determine the Engineered Opening size for each model listed below. I used the following assumptions: $A^o = \text{total}$ net area of openings required (in²); 0.033 = coefficient corresponding to a factor of safety of 5.0 (in² hr/ft³); c = 0.40 opening coefficient (ASCE 24 Table 2-3 "rectangular, long axis horizontal, short axis vertical unobstructed during design flood") or C = 0.35 (square unobstructed during design flood); R = 5 ft/hr worst case rate of rise and fall; and $A\hat{e} = 1$ ft² total enclosed area.

Note: When the horizontal dimension is twice or more the vertical dimension, use 0.4; as the dimensions approach a square, interpolate from 0,4 to 0.35.

 A° / $A\hat{e}$ = 0.033 [1/C] R = 0.033 [1/0.40 for rectangle, long axis horizontal] = 0.4125 in² per ft² or A° / $A\hat{e}$ = 0.033 [1/C] R = 0.033 [1 / 0.35 for square] = .4719 in² per ft²

Each individual opening, and any louvers, screens, or other covers, shall be designed to allow automatic entry and exit of floodwaters during design flood or lesser flood conditions; there shall be a minimum of two openings on different sides of each enclosed area; if a structure has more than one enclosed area below the DFE, each area shall have openings; openings shall not be less than 3 inches in any direction in the plane of the wall; the bottom of each required opening shall be no more than 1 ft. above the adjacent grade; the difference between the exterior and interior floodwater levels shall not exceed 1 ft. during base flood conditions; in the absence of reliable data on the rates of rise and fall, assume a rate of rise and fall of 5ft/hr; where data or analysis indicated more rapid rates of rise and fall, the total net area of the required openings shall be increased to account for the higher rates of rise and fall.

MODEL Number Flood Solutions:	SIZE of OPENING: (WIDTH X HEIGHT)	Net Free Air (square inches):	ENGINEERED OPENING Each vent covers: (square ft.)
1412-F	14-1/2" x 12"	67	145
1509-F	16"x 9-1/2"	55	131
1608-F	16" x 8"	51	124
1608-D	16" x 8"	51	124
1608-C	16" x 8"	65	158
1616-F	16" x 16"	104	221
1616-D	16" x 16"	102	216
2412-F	24" x 12"	113	274
2412-D	24" x 12"	110	267
2416-F	24" x 16"	156	362
2416-D	24" x 16"	154	357
3208-F	32" x 8"	104	252
3208-D	32" x 8"	104	252

SIGNATURE:		
NAME : DANIEL G.	FARABAUGH	
TYPE OF LICENSE:	PROFESSIONAL EN	GINEER
STATE: FLORIDA	LICENSE NUMBER:_	48349

DAN FARABAUGH, P.E.
FARABAUGH ENGINEERING AND TESTING, INC.
401 WIDE DR., McKEESPORT, PA 15135
PHONE: 412-751-4001 FAX: 412-751-4003

