

# ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

*At 5-17-19*

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 ALINA HOUSE ✓				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3623 CLUSTER LANE ✓				Company NAIC Number:	
City MYRTLE BEACH ✓		State South Carolina ✓		ZIP Code 29579 ✓	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) ✓ LOT 13, BLOCK E PHASE II, WHISPERING PINES (PIN# 427-05-04-0014)					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>RESIDENTIAL</u>					
A5. Latitude/Longitude: Lat. <u>33-42-43.94</u> Long. <u>078-57-26.76</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> 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 <u>8</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) <u>990</u> sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>6</u>					
c) Total net area of flood openings in A8.b <u>1463</u> sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage <u>413</u> sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>2</u>					
c) Total net area of flood openings in A9.b <u>440</u> sq in					
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number HORRY COUNTY 450104 ✓			B2. County Name HORRY COUNTY ✓		B3. State South Carolina
B4. Map/Panel Number 45051C 0679 ✓	B5. Suffix H ✓	B6. FIRM Index Date 09/17/2003 ✓	B7. FIRM Panel Effective/ Revised Date 08/23/1999 ✓	B8. Flood Zone(s) AE ✓	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 14 ✓
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input checked="" type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other/Source: _____					
B11. Indicate elevation datum used for BFE in Item B9: <input checked="" type="checkbox"/> NGVD 1929 <input type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

# ELEVATION CERTIFICATE

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

<b>IMPORTANT: In these spaces, copy the corresponding information from Section A.</b>			<b>FOR INSURANCE COMPANY USE</b>
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3623 CLUSTER LANE ✓			Policy Number:
City MYRTLE BEACH ✓	State South Carolina ✓	ZIP Code 29579 ✓	Company NAIC Number

## 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: TBM Vertical Datum: NGVD 29

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.

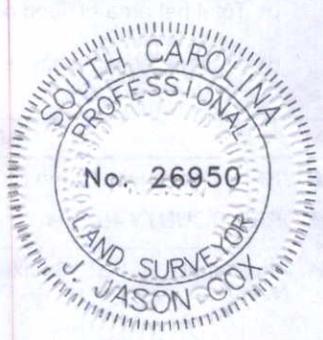
Check the measurement used.

a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	11.5	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> meters
b) Top of the next higher floor	16.5	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	<input type="checkbox"/> feet	<input type="checkbox"/> meters
d) Attached garage (top of slab)	13.3	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	15.3	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> meters
f) Lowest adjacent (finished) grade next to building (LAG)	11.1	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> meters
g) Highest adjacent (finished) grade next to building (HAG)	12.2	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	12.1	<input checked="" type="checkbox"/> feet	<input type="checkbox"/> 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.

Were latitude and longitude in Section A provided by a licensed land surveyor?  Yes  No  Check here if attachments.

Certifier's Name J. JASON COX	License Number SC# 26950		
Title OWNER			
Company Name COX SURVEYORS & ASSOCIATES, LLC ✓			
Address 4325 DICK POND RD., STE. A			
City MYRTLE BEACH	State South Carolina		ZIP Code 29588
Signature <i>J. Jason Cox</i>	Date 02/13/2019	Telephone 843-650-1500	Ext.

Comments (including type of equipment and location, per C2(e), if applicable)

There are 13 vents stamped with a rating of 45 square inches and one unobstructed opening at 878 square inches. No documentation provided to this office that indicates vents are "engineered" vents. C2a is the crawlspace elevation. C2b is the elevation of the finished floor. Flood vents in garage are engineered flood vents by Flood Flaps model FFNF12TF rated at 220 SF each for a total of 440 SF.

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City MYRTLE BEACH ✓	State South Carolina ✓	ZIP Code 29579 ✓	Company NAIC Number	

## 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.

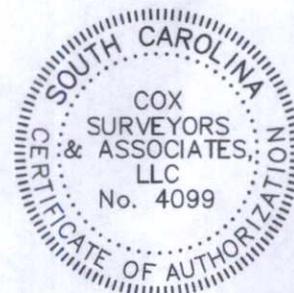
- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
- a) Top of bottom floor (including basement, crawlspace, or enclosure) is \_\_\_\_\_  feet  meters  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 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is \_\_\_\_\_  feet  \_\_\_\_\_  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.

Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments  
Elevations shown in Section E calculated from elevations surveyed by this office and construction plans.



Check here if attachments.

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City MYRTLE BEACH ✓	State South Carolina ✓	ZIP Code 29579 ✓
<b>SECTION G – COMMUNITY INFORMATION (OPTIONAL)</b>		
<p>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.</p> <p>G1. <input type="checkbox"/> 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.)</p> <p>G2. <input type="checkbox"/> A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.</p> <p>G3. <input type="checkbox"/> The following information (Items G4–G10) is provided for community floodplain management purposes.</p>		
G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued
<p>G7. This permit has been issued for:    <input type="checkbox"/> New Construction    <input type="checkbox"/> Substantial Improvement</p> <p>G8. Elevation of as-built lowest floor (including basement) of the building: _____ <input type="checkbox"/> feet    <input type="checkbox"/> meters    Datum _____</p> <p>G9. BFE or (in Zone AO) depth of flooding at the building site: _____ <input type="checkbox"/> feet    <input type="checkbox"/> meters    Datum _____</p> <p>G10. Community's design flood elevation: _____ <input type="checkbox"/> feet    <input type="checkbox"/> meters    Datum _____</p>		
Local Official's Name		Title
Community Name		Telephone
Signature		Date
Comments (including type of equipment and location, per C2(e), if applicable)		
<div style="text-align: right; margin-top: 10px;"><input type="checkbox"/> Check here if attachments.</div>		

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### BUILDING PHOTOGRAPHS

See Instructions for Item A6.

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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 Caption FRONT VIEW

Clear Photo One

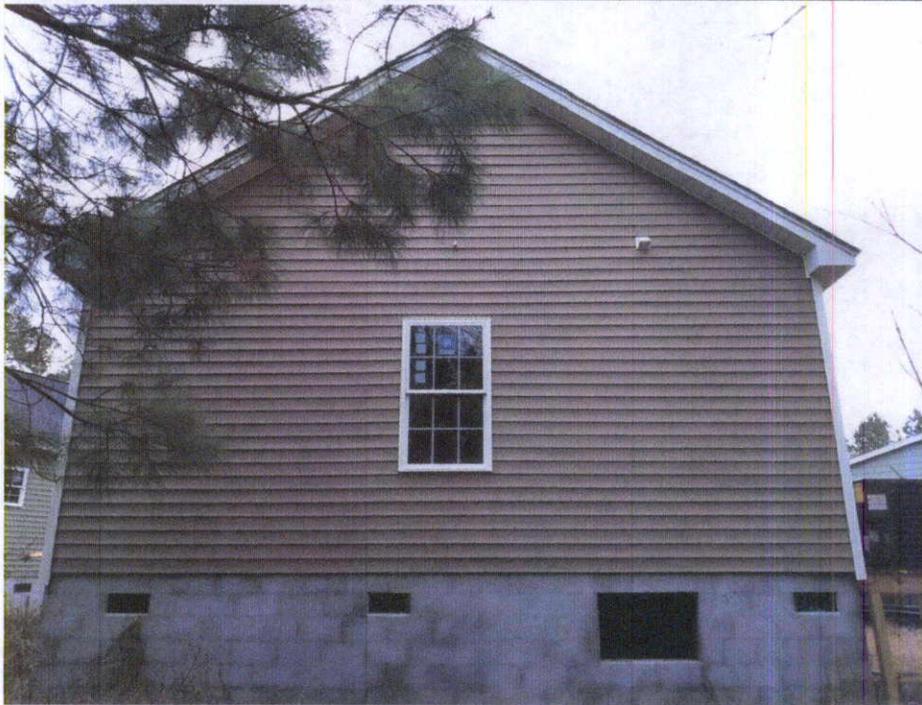


Photo Two Caption REAR VIEW

Clear Photo Two

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5-16-19  
EB45

Arteaga Consulting, LLC  
7983 Leeward Lane,  
Murrels Inlet, South Carolina 29576  
(843) 655-6078

To: Horry County Building Department  
Attention: Mr. David Jacobs  
1301 Second Avenue, Suite 1D09  
Conway, South Carolina 29626

Date: May 10, 2019

Subject: Plan Revision of Single Family Residence,  
Lot 13, Whispering Pines, 3623 Cluster Lane, Myrtle Beach, SC 29579  
Horry County Building Permit Number: RES-02-18-80997

Dear Mr. Jacobs,

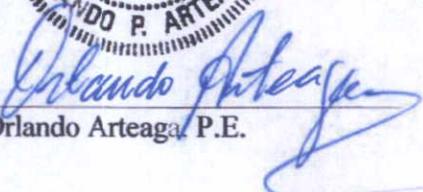
The Flood Vents (FV) installed on the above referenced residence comply with the design principle noted in Sections 2.7.2.2 and 2.7.3 of the ASCE/SEI 24-14 (2018 and 2015 IBC and IRC) {Section 2.6.2.2 of the ASCE/SEI 24-05 (2012 and 2009 IBC and IRC)} for a rate of rise and fall of 5 feet per hour (0.423 mm/s). This system provides for the equalization of hydrostatic flood forces on exterior walls. The FV's installed were:

Flood Flaps Automatic Flood Vents Model: FFNF12TF

This model requires a minimum of two openings, one on each side of the garage walls. Each FV handles 220 s.f. (square feet) for a total of 440 s.f. This is 10% more than required minimum of 400 s.f. Bottoms of vents are located a maximum of 12 inches above grade.

Sincerely,



  
Orlando Arteaga, P.E.