

# County of Currituck V-Zone Certification

*This form is to certify that the design, specifications, and plans for any development within Coastal High Hazard Areas (Zones VE and V1-30) conform to the requirements of Chapter 7 of the Currituck County Unified Development Ordinance and the provisions of this form.*

Name of Owner: \_\_\_\_\_

Structure Address or Other Description: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

**SECTION I: FLOOD INSURANCE RATE MAP (FIRM) INFORMATION**  
*Note: to be obtained from appropriate FIRMs*

|                     |                 |           |                                    |              |
|---------------------|-----------------|-----------|------------------------------------|--------------|
| 1. Community Number | 2. Panel Number | 3. Suffix | 4. Date of FIRM Index/<br>and FIRM | 5. FIRM Zone |
|---------------------|-----------------|-----------|------------------------------------|--------------|

**SECTION II: ELEVATION INFORMATION**  
*Note: This form is not a substitute for an Elevation Certificate. Elevations should be rounded to nearest tenth of foot.*

1. Elevation of the Bottom of Lowest Horizontal Structural Member..... \_\_\_\_\_ feet

2. Base Flood Elevation..... \_\_\_\_\_ feet

3. Elevation of Lowest Adjacent Grade..... \_\_\_\_\_ feet

4. Approximate Depth of Anticipated Scour/Erosion Used for Foundation Design..... \_\_\_\_\_ feet

5. Embedment depth of Pilings or Foundation Below Lowest Adjacent Grade ..... \_\_\_\_\_ feet

6. Datum Used: \_\_\_\_\_ NGVD '29    \_\_\_\_\_ NAVD '88    \_\_\_\_\_ Other

**CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT**

*Note: This section must be certified by a registered professional engineer or architect.*

**THE COMPLETED V-ZONE CERTIFICATION SHALL INCLUDE ALL DOCUMENTATION OF ANY OF THE FOLLOWING PROVISIONS WHICH APPLY.**

I certify that I have developed or reviewed the structural design, plans and specifications for construction and that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the following provisions:

- \_\_\_\_\_ 1. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the BFE;
- \_\_\_\_\_ 2. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of the wind and water loads acting simultaneously on all building components. Water loading values used are those associated with the base flood including wave action. Wind loading values used are those required by the applicable State or local building code. The potential for scour and erosion at the foundation has been anticipated for conditions associated with the flood, including wave action;
- \_\_\_\_\_ 3. Breakaway wall collapse (if applicable) shall result from water load less than that which would occur during base flood;
- \_\_\_\_\_ 4. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (wind and water loading values defined in (a) and (b)).
- \_\_\_\_\_ 5. Soil and foundation analysis performed by North Carolina licensed engineer, architect and/or soil scientist to determine suitability of the soil to support the structure.

- \_\_\_\_\_ 6. A statement, signed and sealed by a North Carolina licensed engineer or architect, showing that there shall be no impact with respect to ramping and, or, deflection of velocity waters, or erosion damage to the structure or nearby buildings. The statement shall address the conformance standards identified within FEMA's Coastal Construction manuals.
  
- \_\_\_\_\_ 7. A signed and sealed, site specific statement prepared by a North Carolina licensed engineer or architect, complying with NFIP Regulations 44 CFR,60.3, proving that any proposed swimming pool will not act as an obstruction that will result in damage to the V-zone building or nearby buildings, will not be subject to breaking up or floating out of the ground during a coastal flood associated with a 100 year storm and shall therefore not increase the damage potential to the foundation and elevated portion of nearby buildings. In addition, the design professional must design and site the pool so that any increased wave or debris impact forces will not affect any nearby buildings.
  
- \_\_\_\_\_ 8. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding
  
- \_\_\_\_\_ 9. Fill shall not be used for structural support. Limited non-compacted and non-stabilized fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, thereby rendering the building free of obstruction prior to generating excessive loading forces, ramping effects, or wave deflection. Design plans shall be submitted in accordance with Section 7.4.6 of the UDO. The floodplain administrator may approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist which demonstrates that the following factors have been satisfied:
  - a) Particle composition of fill material does not have a tendency for excessive natural compaction;
  - b) Volume and distribution of fill will not cause wave deflection to adjacent properties; and
  - c) Slope of fill will not cause wave run-up or ramping.

\_\_\_\_\_ 10. **SWIMMING POOL CERTIFICATION**

I certify that:

- a) The pool will not be subject to breaking up or floating out of the ground during a coastal flood and will therefore not increase the potential for damage to the foundations and elevated portions of any nearby buildings.
- b) The elevation of the pool accounts for the potential buoyancy of the pool and the buoyancy calculations should be made with the pool empty. (Calculations must be attached to this certification for review.)
- c) The pool is designed and sited so that any increased wave or debris impact forces will not affect any nearby buildings.

| <b>SECTION III: CERTIFICATION</b> |                         |          |
|-----------------------------------|-------------------------|----------|
| Name of Certifier                 | Title                   |          |
| Firm Name                         | License Number          |          |
| Street Address                    | Phone Number<br>(     ) |          |
| City                              | State                   | Zip Code |
| Signature                         | Date                    |          |