

D. Standards for Streams with Established Base Flood Elevations but without Floodways. Along rivers and streams where Base Flood Elevation (BFE) data is provided but neither floodway are identified for a Special Flood Hazard Area on the FIRM or in the FIS. The following provisions apply within such areas:

1. No encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

E. Standards for Areas of Shallow Flooding (AO Zones). Located within the areas of special flood hazard established in Article 1.D, are areas designated as shallow flooding. The following provisions shall apply within such areas:

1. All new construction and substantial improvements of residential structures shall have the lowest floor elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least three (3) feet above the highest adjacent grade.
2. All new construction and substantial improvements of non-residential structures shall:
 - a) have the lowest floor elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least three (3) feet above the highest adjacent grade; or,
 - b) be completely floodproofed together with attendant utility and sanitary facilities to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

F. Coastal High Hazard Areas (V-Zones). Located within the areas of special flood hazard established in Article I.D or Article III.E.11 are areas designated as coastal high hazard areas. These areas have special flood hazards associated with wave wash. The following provisions shall apply within such areas:

1. All buildings or structures shall be located landward of the first line of stable natural vegetation and comply with all applicable Department of Heath and Environmental Control (DHEC) Ocean and Coastal Resource Management (OCRM) setback requirements.
2. All buildings or structures shall be elevated so that the bottom of the lowest supporting horizontal member (excluding pilings or columns) is located no

lower than one foot above the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water. Prior to construction, plans for any structures that will have lattice work or decorative screening must be submitted to the local administrator for approval. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of abnormal wave action and in accordance with Article IV.F.8.

3. All buildings or structures shall be securely anchored on pilings or columns, extending vertically below a grade of sufficient depth and the zone of potential scour, and securely anchored to the subsoil strata.

4. All pilings and columns and the attached structures shall be anchored to resist flotation, collapse, lateral movement and scour due to the effect of wind and water loads acting simultaneously on all building components.

5. A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in Article IV Section F 3, 4, 6 and 9 of this ordinance.

6. There shall be no fill used as structural support. Non-compacted 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. Only beach compatible sand may be used. The local administrator shall approve design plans for landscaping/ aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist that demonstrates that the following factors have been fully considered:

- 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.

7. There shall be no alteration of sand dunes that would increase potential flood damage.

8. Lattice work or decorative screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to breakaway, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are to be used and provided the following design specifications are met:

- a) No solid walls shall be allowed.
- b) Breakaway wall material shall consist of wood or mesh screening only.

c) Design safe loading resistance of each breakaway wall shall be not less than 10 nor more than 20 pounds per square foot; or

d) If more than 20 pounds per square foot, a registered professional engineer or architect shall certify that the design wall collapse would result from a water load less than that which would occur during the base flood event, and 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 (structural and non-structural). The water loading values used shall be those associated with the base flood. The wind loading values used shall be those required by the IBC International Building Code.

e) Breakaway wall material shall be constructed with flood resistant materials.

9. If aesthetic lattice work or screening is utilized, such enclosed space shall not be designed to be used for human habitation, but shall be designed to be used only for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises.

a) Only flood resistant materials shall be used below the required flood elevation specified in Article IV .A.2.

b) One wet location switch and/or outlet connected to a ground fault interrupt breaker may be installed below the required lowest floor elevation specified in Article IV A.4.

c) The total area of an enclosed space shall not exceed 299 square feet per building.

10. Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except with lattice work or decorative screening, as provided for in Article IV.F.8 and 9.

11. No manufactured homes shall be permitted except in an existing manufactured home park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring and elevation standards of Article IV.B.3.

12. Recreational vehicles shall be permitted in Coastal High Hazard Areas provided that they meet the Recreational Vehicle criteria of Article IV B.6 and the Temporary Structure provisions of Article IV B.11

13. Temporary structures are permitted in accordance with Article IV.B.11.

14. Accessory structures, below the required lowest floor elevation specified in Article IV F.2, are prohibited except for the following:

a) Swimming Pools

(1) They are installed at-grade or elevated so long as the pool will not act as an obstruction

(2) They must be structurally independent of the building and its foundation.

(3) They may be placed beneath a coastal building only if the top of the pool and any accompanying decking or walkway are flush with the existing grade and only if the lower area remains unenclosed.

(4) As part of the certification process for V-zone buildings the design professional must consider the effects that any of these elements will have on the building in question and any nearby buildings.

b) Pool Utility Equipment Rooms

(1) If the building can not be built at or above the BFE, because of functionality of the equipment then a structure to house the utilities for the pool may be built below the BFE with the following provisions:

(a) It must be structurally independent from the main structure.

(b) It must be built with breakaway walls.

(c) The utilities must be anchored to prevent flotation and shall be designed to prevent water from entering or accumulating within the components during conditions of the base flood.

c) Access Stairs Attached to or Beneath an Elevated Building:

(1) Must be constructed of flood-resistant materials..

(2) Must be constructed as open staircases so they do not block flow under the structure in accordance with 44CFR60.3(e)(5).

d) Decks

(1) If the deck is structurally attached to a building then the bottom of the lowest horizontal member must be at or above the elevation of the buildings lowest horizontal member.

(2) If the deck is to be built below the BFE then it must be structurally independent of the main building and must not cause an obstruction.

(3) If an at-grade, structurally independent deck is proposed then a design professional must evaluate the design to determine if it will adversely affect the building and nearby buildings.

e) Elevators

(1) Install a float switch system or another system that provides the same level of safety is necessary for all elevators where there is a potential for the elevator cab to descend below the BFE during a flood per FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.

(2) All equipment that may have to be installed below the BFE such as counter weight roller guides, compensation cable and pulleys, and oil buffers for traction elevators and the jack assembly for a hydraulic elevator must be constructed using flood-resistant materials where possible per FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.

15. Parking areas should be located on a stable grade under or landward of a structure. Any parking surface shall consist of gravel or ROC aggregate.

16. Electrical, ventilation, plumbing, heating and air conditioning equipment (including ductwork), and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of base flood event plus _____ feet. This requirement does not preclude the installation of outdoor faucets for shower heads, sinks, hoses, etc., as long as cut off devices and back flow devices are installed to prevent contamination to the service components and thereby minimize any flood damages to the building. No utilities or components shall be attached to breakaway walls.

Article V. VARIANCE PROCEDURES

A. Establishment of Appeal Board. The Fairfield County Board of Zoning Appeals as established by County Council of Fairfield County shall hear and decide requests for variances from the requirements of this ordinance.

B. Right to Appeal. Any person aggrieved by the decision of the appeal board or any taxpayer may appeal such decision to the Court.

C. Historic Structures. Variances may be issued for the repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

D. Agricultural Structures. Variances may be issued to wet floodproof an agricultural structure in accordance with Technical Bulletin 7-93, *Wet Floodproofing Requirements for Structures Located in Special Flood Hazard Areas in accordance with the National Flood Insurance Program*, document number FIA-TB-7, dated 12/93, and available from the Federal Emergency Management Agency. In order to minimize flood damages during the base flood and the threat to public health and safety, the structure must

meet all of the conditions and considerations of Article V.H, this section, and the following standards:

1. use of the structure must be limited to agricultural purposes as listed below:
 - a) pole frame buildings with open or closed sides used exclusively for the storage of farm machinery and equipment,
 - b) steel grain bins and steel frame corncribs,
 - c) general-purpose barns for the temporary feeding of livestock that are open on at least one side;
 - d) for livestock confinement buildings, poultry houses, dairy operations, and similar livestock operations, variances may not be issued for structures that were substantially damaged. New construction or substantial improvement of such structures must meet the elevation requirements of Article IV.B.2 of this ordinance; and,
 - e) detached garages and storage sheds solely used for parking and limited storage in connection with agricultural uses only, which are no greater than 400 square feet in area.
2. the agricultural structure must be built or rebuilt, in the case of an existing building that is substantially damaged, with flood-resistant materials for the exterior and interior building components and elements below the base flood elevation,
3. the agricultural structure must be adequately anchored to prevent flotation, collapse, or lateral movement. All of the structure's components must be capable of resisting specific flood-related forces including hydrostatic, buoyancy, hydrodynamic, and debris impact forces. Where flood velocities exceed 5 feet per second, fast-flowing floodwaters can exert considerable pressure on the building's enclosure walls or foundation walls,
4. the agricultural structure must meet the venting requirement of Article IV.B.4 of this ordinance,
5. any mechanical, electrical, or other utility equipment must be located above the base flood elevation so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with Article IV.A.5 of this ordinance,
6. the agricultural structure must comply with the floodway encroachment provisions of Article IV.B.5 of this ordinance; and,
7. major equipment, machinery, or other contents must be protected. Such protection may include protective watertight floodproofed areas within the building, the use of equipment hoists for readily elevating contents, permanently elevating contents on pedestals or shelves above the base flood elevation, or determining that property owners can safely remove contents