

ARTICLE II. FLOOD DAMAGE PREVENTION*

***Cross references:** Buildings and building regulations, ch. 67; floor elevation standards, § 67-32; flood damage prevention for utility systems, § 67-34; drainage requirements for clearing, excavating and filling of land, § 67-138.

Sec. 66-16. Purpose of article.

It is the purpose of this article to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters;
- (4) Control filling, grading, dredging and other development which may increase erosion or flood damage; and
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

(Code 1993, § 26-120)

Sec. 66-17. Special flood hazard maps.

The areas of special flood hazard identified by the Federal Emergency Management Agency in the document entitled "Flood Insurance Study for Ocean Ridge," dated September 30, 1982, with accompanying maps and other supporting data, and any revision thereto, are adopted by reference and declared to be a part of this article.

(Code 1993, § 26-122)

Sec. 66-18. Warning and disclaimer of liability.

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This article shall not create liability on the part of the town or by any officer or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made thereunder.

(Code 1993, § 26-123)

Sec. 66-19. Administration.

(a) *Administrative official appointed.* The administrative official is hereby appointed to administer and implement the provisions of this article.

(b) *Duties of administrative official.* Duties of the administrative official shall include, but not be limited to, the following:

(1) The administrative official shall review all development permits to ensure that the permit requirements of this article have been satisfied.

(2) The administrative official shall advise the permittee that additional federal or state permits may be required, and, if specific federal or state permits are known to be required, require that copies of such permits be provided and maintained on file with the development permit.

(3) The administrative official shall notify adjacent communities and the state prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

(4) The administrative official shall ensure that maintenance is provided within the altered or relocated portion of such watercourse so that the flood-carrying capacity is not diminished.

(5) The administrative official shall verify and record the actual elevation, in relation to mean sea level, of the lowest floor, including basement, of all new or substantially improved structures, in accordance with section 66-20.

(6) The administrative official shall verify and record the actual elevation, in relation to mean sea level, to which the new or substantially improved structures have been floodproofed, in accordance with section 66-20.

(7) In coastal high hazard areas, certification shall be obtained from a registered professional engineer or architect that the structure is designed to be securely anchored to adequately anchored pilings or columns in order to withstand high-velocity waters and hurricane wave wash.

(8) In coastal high hazard areas, the administrative official shall review plans for adequacy of breakaway walls in accordance with section 66-20.

(9) When floodproofing is utilized for a particular structure, the administrative official shall obtain certification from a registered professional engineer or architect, in accordance with section 66-20.

(10) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard; for example, where there appears to be a conflict between a mapped boundary and actual field conditions, the administrative official shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

(11) When base flood elevation data or floodway data have not been provided in accordance with section 66-20, the administrative official shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer the provisions of section 66-20.

(12) All records pertaining to the provisions of this article shall be maintained in the office of the town manager or his designee and shall be open for public inspection.

(c) *Development permit required.* A development permit shall be required in conformance with

the provisions of this article as well as article IV of chapter 63 of this land development code prior to the commencement of any development activities.

(d) *Application for development permit.* The following information shall be provided in an application for a minor or major development permit as required in article IV of chapter 63 of this land development code:

(1) *Site plan stage (major development only).*

- a. Elevation, in relation to mean sea level, of the proposed lowest floor, including basement, of all structures.
- b. Elevation, in relation to mean sea level, to which any nonresidential structure will be floodproofed.
- c. A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure will meet the floodproofing criteria in section 66-20.
- d. A description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

(2) *Building permit stage (minor or major development).* The permittee shall provide a floor elevation or floodproofing certification after the lowest floor is completed, or, in instances where the structure is subject to the regulations applicable to coastal high hazard areas, after placement of the horizontal structural members of the lowest floor. Upon placement of the lowest floor, or floodproofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit holder to submit to the town manager a certification of the elevation of the lowest floor, the floodproofed elevation, or the elevation of the lowest portion of the horizontal structural members of the lowest floor, whichever is applicable, as built, in relation to mean sea level. The certification shall be prepared by or under the direct supervision of and certified by a registered land surveyor or professional engineer. When floodproofing is utilized for a particular building, the certification shall be prepared by or under the direct supervision of and certified by a professional engineer or architect. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The administrative official shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make the corrections required by this section shall be cause to issue a stop work order for the project.

(e) *Variance procedure.*

- (1) The town commission, shall hear and decide appeals and requests for variances from the requirements of this article.
- (2) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the state inventory of historic places without regard to the procedures set forth in subsections (e)(3) through (6) of this section, except for subsections (e)(6)a. through d., provided the proposed reconstruction, rehabilitation or restoration will not result in the structure losing its historical designation.
- (3) In passing upon such applications, the town commission shall consider all technical evaluations, all relevant factors, standards specified in the other sections of this article and:
 - a. The danger that materials may be swept onto other lands to the injury of others;

- b. The danger to life and property due to flooding or erosion damage;
 - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - d. The importance of the services provided by the proposed facility to the community;
 - e. The necessity to the facility of a waterfront location, in the case of a functionally dependent facility;
 - f. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
 - g. The compatibility of the proposed use with existing and anticipated development;
 - h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - j. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
 - k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- (4) Upon consideration of the factors listed in subsection (3) of this section and the purposes of this article, the town commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this article.
- (5) Variances shall not be issued within any designated floodway if any increase in flood level during the base flood discharge would result.
- (6) Conditions for variances are as follows:
- a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and, in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building.
 - b. Variances shall only be issued upon:
 - 1. A showing of good and sufficient cause;
 - 2. A determination that failure to grant the variance would result in exceptional hardship; and
 - 3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - c. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the structure is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

- d. The town manager shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

(Code 1993, § 26-124)

Cross references: Administration, ch. 2.

Sec. 66-20. Provisions for flood hazard reduction.

(a) *General standards.* In all areas of special flood hazard as specified on the map, the following provisions are required:

- (1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- (2) Mobile homes shall be anchored to prevent flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.
- (3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (4) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.
- (5) Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.
- (8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (9) Any alteration, repair, reconstruction or improvements to a structure which is in compliance with the provisions of this article shall meet the requirements of new construction as contained in this article.

(b) *Specific standards.* In all areas of special flood hazard where base flood elevation data has been provided, the following provisions are required:

- (1) *Residential construction.* New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated no lower than one foot above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards of subsection (b)(3) of this section.
- (2) *Nonresidential construction.* New construction or substantial improvement of any nonresidential structure shall have the lowest floor, including basement, elevated no lower than one foot above the level of the base flood elevation. Structures located in all A zones may be floodproofed in lieu of being elevated provided that all areas of the structure below the required elevation are watertight with walls substantially impermeable to the passage of water and use structural components having the

capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in section 66-19(d).

(3) *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

1. A minimum of two openings shall be provided having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. The bottoms of all openings shall be no higher than one foot above grade; and
3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.

b. Electrical, plumbing and other utility connections are prohibited below the base flood elevation.

c. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and

d. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

(4) *Floodways.* Located within areas of special flood hazard established on the map are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris and potential projectiles and have erosion potential, the following provisions shall apply:

a. Encroachments, including fill, new construction, substantial improvements and other developments, are prohibited unless certification, with supporting technical data, by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge.

b. If subsection (b)(4)a. of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section.

(5) *Coastal high hazard areas (V zones).* Located within the areas of special flood hazard established on the map are areas designated as coastal high hazard areas. These areas have special flood hazards associated with wave wash; therefore, the following provisions shall apply:

a. All buildings or structures shall be located landward of the reach of the mean high tide.

b. 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 the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water. Open latticework 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 subsection (b)(5)h. of this section.

c. All buildings or structures shall be securely anchored on pilings or columns.

d. All pilings and columns and the attached structures shall be anchored to resist flotation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. The anchoring and support system shall be designed with wind and water loading values which equal or exceed the 100-year mean recurrence interval (one percent annual chance flood).

e. A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in subsections (b)(5)b. through d. of this section.

f. There shall be no fill used as structural support. Noncompacted fill may be used around the perimeter of a building for landscaping or 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. The building official shall approve design plans for landscaping or aesthetic fill only after the applicant has provided an analysis by an engineer, architect or soil scientist which demonstrates that the following factors have been fully considered:

1. Particle composition of fill material does not have a tendency for excessive natural compaction;
2. Volume and distribution of fill will not cause wave deflection to adjacent properties; and
3. Slope of fill will not cause wave run-up or ramping.

g. There shall be no alteration of sand dunes or mangrove stands which would increase potential flood damage.

h. Latticework or decorative screening shall be allowed below the base flood elevation provided it is not part of the structural support of the building and is designed so as to break away, under abnormally high tides or wave action, without damage to the structural integrity of the building on which it is to be used, and provided the following design specifications are met:

1. No solid walls shall be allowed; and
2. Material shall consist of lattice or mesh screening only.

i. If aesthetic latticework 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.

j. Prior to construction, plans for any structures that will have latticework or decorative screening must be submitted to the building official for approval.

k. Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except with latticework or decorative screening, as provided for in subsections (b)(5)h. and i. of this section.

(c) *Standards for subdivisions.*

- (1) All subdivision proposals shall be consistent with the need to minimize flood damage.
 - (2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
 - (3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
 - (4) Base flood elevation data shall be provided for subdivision proposals and other proposed development which is greater than the lesser of 50 lots or five acres.
- (d) *Standards for areas of shallow flooding.* Located within the areas of special flood hazard are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply:

- (1) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, 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, including basement, shall be elevated at least two feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of nonresidential structures shall:
 - a. Have the lowest floor, including basement, 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, including basement, shall be elevated at least two feet above the highest adjacent grade; or
 - b. Together with attendant utility and sanitary facilities be completely floodproofed 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.

(Code 1993, § 26-125)

Cross references: Streets and sidewalks, ch. 46; waterways, ch. 62; subdivisions, § 64-96 et seq.; buildings and building regulations, ch. 67.

Secs. 66-21--66-35. Reserved.