

Chapter 16 - FLOODS¹¹

Footnotes:

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Editor's note— Ord. No. 2016-25, adopted Sept. 19, 2017, amended ch. 16 in its entirety to read as herein set out. Former ch. 16 pertained to the same subject matter, consisted of §§ 16-1, 16-31—16-40, 16-81—16-85, 16-121—16-125, 16-161—16-169, and derived from Ord. No. 2008-21, adopted Sept. 1, 2009; and Ord. No. 2010-25, adopted July 20, 2010.

Cross reference— Buildings and building regulations, ch. 6; environment, ch. 12; planning and development, ch. 24; roads and bridges, ch. 26; unified performance standards, ch. 32; utilities, ch. 34.

State Law reference— Flood regulation, S.C. Code 1976, § 48-17-10.

ARTICLE I. - IN GENERAL

Sec. 16-1. - Authority.

The General Assembly of the State of South Carolina has in S.C. Code 1976 Title 4, Chapter 9 and in Title 6, Chapter 29, delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore the provisions of this article are adopted under authority set forth in S.C. Code 1976 Title 4, Chapter 9 and in Title 6, Chapter 29.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-2. - Purpose and objectives.

It is the purpose of this chapter to protect human life and health, minimize property damage, and encourage appropriate construction practices to minimize public and private losses due to flood conditions by requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction. Uses of the floodplain which are dangerous to health, safety, and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion are restricted or prohibited. These provisions attempt to control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters, and control filling, grading, dredging, and other development which may increase flood damage or erosion. Additionally, the ordinance prevents or regulates the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

The objectives of this chapter are to protect human life and health, to help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize flood blight areas, and to insure that potential home buyers are notified that property is in a flood area. The provisions of the ordinance are intended to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in the floodplain, and prolonged business interruptions. Also, an important floodplain management objective of this chapter is to minimize expenditure of public money for costly flood control projects and rescue and relief efforts associated with flooding.

Floodplains are an important asset to the community. They perform vital natural functions such as temporary storage of floodwaters, moderation of peak flood flows, maintenance of water quality, groundwater recharge, prevention of erosion, habitat for diverse natural wildlife populations, recreational opportunities, and aesthetic quality. These functions are best served if floodplains are kept in their natural state. Wherever possible, the natural characteristics of floodplains and their associated wetlands and water bodies should be preserved and enhanced. Decisions to alter floodplains, especially floodways and

stream channels, should be the result of careful planning processes that evaluate resource conditions and human needs.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Secs. 16-3—16-30. - Reserved.

ARTICLE II. - FLOOD DAMAGE PREVENTION

DIVISION 1. - GENERALLY

Sec. 16-31. - Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Accessory structure means a structure located on the same parcel of property as the principal structure, and the use of which is incidental to the use of the principal structure.

Addition (to an existing building or structure) means an extension or increase in the floor area or height of a building or structure. Additions to existing buildings shall comply with the requirements for new construction regardless as to whether the addition is a substantial improvement or not. Where a firewall or load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and must comply with the standards for new construction.

Agricultural structure means a structure used solely for agricultural purposes in which the use is exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock. Agricultural structures are not exempt from the provisions of this article.

Appeal means a request for a review of the floodplain manager's interpretation of any provision of this article.

Area of shallow flooding means a designated AO zone on a flood insurance rate map (FIRM) with base flood depths of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

Base flood means the flood having a one-percent chance of being equaled or exceeded in any given year.

Base flood elevation (BFE) means the height of the base flood, usually in feet, in relation to the specified geodetic vertical datum.

Basement means any enclosed area of a building that is below grade on all sides.

Building means any structure built for support, shelter, or enclosure for any occupancy or storage.

CLOMR means conditional letter of map revision.

CLOMA means conditional letter of map amendment.

Critical facility means those functions, structures, or buildings used for essential services for the public good, health, and welfare of the essential daily operations and delivery of services to the citizens of the county, such as, but not limited to, waste water treatment facilities, potable water distribution facilities, power generation facilities, telecommunication centers, schools, hospitals, fire departments, law enforcement facilities, emergency medical service facilities, governmental offices, care centers, disaster shelter facilities, and the like.

DHS-FEMA means Department of Homeland Security-Federal Emergency Management Agency.

Development means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Elevated building means a non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns, piers, or shear walls parallel to the flow of water.

Existing construction means, for the purposes of determining rates, structures for which the start of construction commenced before September 1, 1987.

Existing manufactured home park or manufactured home subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before September 1, 1987.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs).

Flood means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters; or
- (2) The unusual and rapid accumulation of runoff or surface waters from any source.

Flood hazard boundary map (FHBM) means an official map issued by DHS-FEMA, NFIP on which the boundaries of the special flood hazard areas have been defined.

Flood insurance rate map (FIRM) means an official map of the county on which DHS-FEMA, NFIP has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

Flood insurance study means the official report containing the examination, evaluation, and determination of flood hazard areas provided by the DHS-FEMA, NFIP. The report contains flood profiles, as well as the flood hazard boundary map and flood risk data for various areas of the county and the water surface elevation of the base flood.

Floodplain or flood-prone area means any land area susceptible to being inundated by water from any source (see definition of "flood").

Floodproofing means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Flood-resistant material means any building material capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumber are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Class 4 and 5 materials, referenced in the Technical Bulletin 2-93, Flood-Resistant Materials for Buildings Located in Special Flood Hazard Areas in Accordance with the National Flood Insurance Program, document number FIA-TB-2, dated 4/93, and available from the Federal Emergency Management Agency are acceptable flood-resistant materials.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure.

Historic structure means any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of the Interior (DOI)) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places;
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified:
 - a. By an approved state program as determined by the Secretary of Interior, or
 - b. Directly by the Secretary of Interior in states without approved programs.

Some structures or districts listed on the state or local inventories may not be historic as cited above, but have been included on the inventories because it was believed that the structures or districts have the potential for meeting the historic structure criteria of the DOI. In order for these structures to meet NFIP historic structure criteria, it must be demonstrated and evidenced that the South Carolina Department of Archives and History has individually determined that the structure or district meets DOI historic structure criteria.

Increased cost of compliance applies to all new and renewed flood insurance policies effective on and after June 1, 1997. The NFIP shall enable the purchase of insurance to cover the cost of compliance with land use and control measures established under Section 1361. It provides coverage for the payment of a claim to help pay for the cost to comply with state or community floodplain management laws or ordinances after a flood event in which a building has been declared substantially or repetitively damaged.

Limited storage means an area used for storage and intended to be limited to incidental items that can withstand exposure to the elements and have low flood damage potential. Such an area must be of flood resistant or breakaway material, void of utilities except for essential lighting and cannot be temperature controlled.

LOMA means letter of map amendment.

LOMR means letter of map revision.

Lowest adjacent grade (LAG) means an elevation of the lowest ground surface that touches any of the exterior walls of a building or proposed building walls.

Lowest floor means the lowest floor of the lowest enclosed area. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement area, is not considered a building's lowest floor provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this article.

Manufactured home means a structure, transportable in one or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a recreational vehicle.

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean sea level means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the special flood hazard area.

National Geodetic Vertical Datum (NGVD), as corrected in 1929, means the elevation reference points set by National Geodetic Survey based on mean sea level. New construction means structure for which the start of construction commenced after September 1, 1987. The term also includes any subsequent improvements to such structure.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs) is completed on or after September 1, 1987.

NFIP means National Flood Insurance Program.

North American Vertical Datum (NAVD) means the datum point established at Pointe-au-Père on the St. Lawrence River, Quebec Province, Canada, based on the mass or density of the earth. The datum listed as the reference datum on flood insurance rate maps should be used for elevation certificate and floodproofing certificate completion.

Recreational vehicle means a vehicle which is:

- (1) Built on a single chassis;
- (2) Four hundred square feet or less when measured at the largest horizontal projection;
- (3) Designed to be self-propelled or permanently towable by a car or light duty truck; and
- (4) Designed primarily not for use as a permanent dwelling, but as a temporary living quarters for recreational, camping, travel, or seasonal use.

Repetitive loss structure means a structure covered by a contract of flood insurance that has incurred flood-related damages on two occasions during a ten year period ending on the date of the event for which a second claim is made, in which the cost to repair the flood damage, on average, equaled or exceeded 25 percent of the market value of the building at the time of such flood event.

Section 1316 means, for the purposes of this chapter, Section 1316 of the National Flood Insurance Act of 1968, wherein standards are established providing that no new flood insurance shall be provided for any property found by the Federal Emergency Management Agency to have been declared by a state or local authority to be in violation of state or local ordinances.

Special flood hazard area means an area delineated on a flood insurance rate map as being subject to inundation by the base flood and designated as zone A, AE, A1-30, AR, AO, and AH.

Start of construction includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for footings, piers or foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds, not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

Structure means a walled and roofed building, a manufactured home, including a gas or liquid storage tank that is principally above ground.

Subdivision means the division of a tract, lot or parcel of land into two or more lots, plats, sites or other divisions of land.

Substantial damage means damage of any origin, sustained by a structure after September 1, 1987, whereby the cost of restoring the structure to its before-damaged condition would be equal to or exceed 50 percent of the market value of the structure before the damage occurred. Such repairs may be undertaken successively and their costs counted cumulatively. Please refer to the definition of "substantial improvement."

Substantial improvement means any repair, reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of the construction of the improvement. This term includes structures that have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project of improvement to a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions (does not include American with Disabilities Act compliance standards); or,
- (2) Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

Permits shall be cumulative for a period of five years. If the improvement project is conducted in phases, the total of all costs associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether "substantial improvement" will occur.

Substantially improved existing manufactured home park or subdivision means where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction, or improvement commenced.

Variance means the grant of relief from a term or terms of this article.

Violation means the failure of a structure or other development to be fully compliant with this article.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-32. - Lands to which this article applies.

This article shall apply to all parcels of land that lie either wholly or partially within, or immediately adjacent to, special flood hazard areas that are within the jurisdiction of the unincorporated areas of the county. These special flood hazard areas are identified by the Department of Homeland Security-FEMA, National Flood Insurance Program (DHS-FEMA, NFIP), in its flood insurance study, dated December 21, 2017 with accompanying maps and other supporting data, which are hereby adopted by reference and declared to be a part of this article. Further, this article shall apply to any special flood hazard areas established and accepted by the county that utilize DHS-FEMA, NFIP detailed flood study standards, or better.

Upon annexation any special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study for the unincorporated areas of Oconee County, with accompanying map and other data are adopted by reference and declared part of this chapter.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-33. - Adoption of letters of map revisions and letters of map amendments.

All LOMRs and LOMAs issued by DHS-FEMA for the unincorporated areas of the county are hereby adopted by this reference.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-34. - Establishment of development permit.

Prior to the commencement of any development activities in the special flood hazard areas, a development permit shall be required in accordance with the provisions of this article.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-35. - Compliance.

No structure shall hereafter be located, extended, converted, or structurally altered, or land developed, without full compliance with the terms of this article and other applicable regulations. Nothing in this article shall be construed to apply to parcels of land that do not lie either wholly or partially within, or immediately adjacent to, special flood hazard areas within the jurisdiction of the unincorporated areas of the county.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-36. - Interpretation.

In the interpretation and application of this article, all provisions shall be considered as minimum requirements, liberally construed in favor of the governing body, and deemed neither to limit nor repeal any other powers granted under state law. This article is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this article and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-37. - Partial invalidity and severability.

If any part of the ordinance codified in this chapter is declared invalid, the remainder of the ordinance shall not be affected and shall remain in force.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-38. - Penalties for violation.

In addition to any specific penalties as set forth herein, violation of the provisions of this article or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person, firm, corporation, or agent who violates this article or fails to comply with any of its requirements shall, upon conviction thereof, be fined within the jurisdictional limits of magistrate's court or imprisoned for not more than 30 days, or both. Each such person, firm, corporation or agent shall be deemed guilty of a separate offense for each and every day, or portion thereof, during which any violation of any of the provisions of this article is committed or continued. Nothing herein contained shall prevent the county from taking such other lawful action, including an action for injunctive relief, as is necessary to prevent or remedy any violation.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-39. - Effect upon outstanding development permits.

Nothing herein contained shall require any change in the plans, construction, size, or designated use of any building, structure or part thereof for which a development permit has been granted by the county before the time of the enactment of this article.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-40. - 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 special flood hazard areas 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 county, or by any officer or employee thereof, for any flood damages that result from reliance on this article, or any administrative decision lawfully made hereunder.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-41. - Effect on rights and liabilities under the existing flood damage prevention ordinance.

This article in part comes forward by reenactment of some of the provisions of the flood damage prevention ordinance enacted August 18, 1987, as amended. It is not the intention to repeal but rather to reenact and continue to enforce without interruption such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this article shall not affect any action, suit or proceeding instituted or pending that has been brought by the county. All provisions of the flood damage prevention ordinance of Oconee County enacted on August 18, 1987, as amended, which are not reenacted herein, are repealed.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Secs. 16-42—16-80. - Reserved.

DIVISION 2. - ADMINISTRATION

Sec. 16-81. - Designation of floodplains manager.

The county administrator or his designee shall serve as the floodplains manager.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-82. - Development permit and certification requirements.

Development permits shall be required for all development, including the placement of manufactured homes, so that the county may determine whether or not such construction or other development is proposed in the special flood hazard area. Prior to any development activities, application for a development permit shall be made to the floodplains manager on forms furnished by the local floodplains manager. The development permit may include, but not be limited to, plans in duplicate, drawn to scale,

showing: the nature, location, dimensions, and elevations of the area in question; existing or proposed structures; and the location of fill materials, storage areas, and drainage facilities. Specifically, the following information is required:

- (1) A plot plan that shows the special flood hazard area contour, or a statement that the entire lot is within the special flood hazard area, must be provided by the development permit applicant when the lot is within, or appears to be within the special flood hazard area as mapped by DHS-FEMA or the special flood hazard area identified pursuant to either the duties and responsibilities of the floodplains manager of subsection 16-83(9) or the standards for subdivision proposals of section 16-125 and the standards for streams without estimated base flood elevations and/or floodways of section 16-124. The plot plan must be prepared by or under the direct supervision of a state-registered land surveyor or professional engineer and certified by the same.
- (2) The plot plan required herein must show the floodway, if any, as identified by the DHS-FEMA, NFIP, or as identified pursuant to either the duties or responsibilities of the floodplains manager of subsection 16-83(9) or the standards for subdivision proposals of section 16-125 and the standards for streams without estimated base flood elevations and/or floodways of section 16-124.
- (3) Where base flood elevation data is provided as set forth in section 16-32 or the duties and responsibilities of the floodplains managers of subsection 16-83(9) the application for a development permit within the flood hazard area shall show:
 - a. The elevation (in relation to mean sea level) of the lowest floor of all new and substantially improved structures, and
 - b. If the structure will be floodproofed in accordance with the nonresidential construction requirements of subsection 16-122(2) the elevation (in relation to mean sea level) to which the structure will be floodproofed.
- (4) Where base flood elevation data is not provided. In the absence of other available data from another source, and where no BFE data is provided as set forth in section 16-32, one of the following methods may be used to determine a BFE, subject to approval by the floodplains manager. For further information regarding the methods for determining BFEs listed below, refer to DHS-FEMA's manual Managing Floodplain Development in Approximate Zone A Areas.
 - a. *Contour interpolation.*
 1. Superimpose approximate zone A boundaries onto a topographic map and estimate a preliminary BFE.
 2. Add one half of the contour interval of the topographic map to determine the final BFE.
 - b. *Data extrapolation.* A BFE can be determined if a site is located within 500 feet upstream of a stream reach for which a 100-year profile has been computed by detailed methods, and the special flood hazard area and channel bottom slope characteristics are relatively similar to the downstream reaches.
 - c. *Hydrologic and hydraulic calculations.* Perform hydrologic and hydraulic calculations to determine BFEs using DHS-FEMA-approved methods and software.
- (5) Alteration of watercourse. Where any watercourse will be altered or relocated as a result of proposed development, the application for a development permit shall include: A description of the extent of watercourse alteration or relocation; an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; a map showing the location of the proposed watercourse alteration or relocation; and notification of the proposal to the appropriate governmental agencies. A copy of the notification shall be maintained in the permit records and submitted to the DHS-FEMA. Prior to the commencement of any work on the alteration of a watercourse, the applicant must procure and submit to the floodplains manager any applicable federal or state approvals or permits, including a CLOMR. Within 60 days of completion of an

alteration of a watercourse, the applicant shall submit as-built certification, by a state-registered professional engineer, to the floodplains manager, DHS-FEMA, as a LOMR, and the State of South Carolina, Department of Natural Resources, Flood Mitigation Program.

- (6) When a structure is constructed or substantially improved in the special flood hazard area or, in the opinion of the floodplains manager, a flood elevation certificate is required as soon as possible after completion of the lowest floor and before any further inspections are accepted and vertical construction commences. The as-built measurement shall be made in relation to mean sea level and shall be a minimum of three feet above the BFE. The certification shall be prepared, signed and sealed by a state-registered land surveyor or a state professional engineer. Any work done prior to submission of the certification shall be at the permit holder's risk. The floodplains manager 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 certification or failure to make the required corrections shall be cause to issue a stop-work order for the project.
- (7) If the proposed development will impact the configuration of a watercourse, floodway, or BFE for which a detailed flood insurance study has been developed, the applicant shall apply and must receive approval for a CLOMR with the DHS-FEMA, NFIP. The development permit will not be issued until DHS-FEMA has issued the CLOMR. When a CLOMR has been issued for a development the following shall apply. Within 30 calendar days of completion of construction activities, the applicant shall apply to DHS-FEMA for a LOMR. The applicant is responsible for all technical submissions and fees required to obtain the CLOMR/LOMR.
- (8) As-built certification. Upon completion of the development a state-registered professional engineer, land surveyor or architect shall certify that the development is built in accordance with the submitted plans and previous pre-development certifications.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-83. - Duties and responsibilities of the floodplains manager.

The floodplains manager shall reasonably and responsibly apply the provisions of this article. The duties and responsibilities of the floodplains manager shall include, but are not limited to, the following:

- (1) *Permit application review.* It is the duty and responsibility of the floodplains manager to review all development permit applications to assure that the requirements of this article have been satisfied, and the floodplains manager is authorized to determine whether sites will be reasonably safe from flooding.
- (2) *Requirement of federal and/or state permits.* It is the responsibility of the floodplains manager to review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including section 404 of Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- (3) *Watercourse alterations.*
 - a. Prior to the issuance of the development permit to alter a watercourse, it is the responsibility of the floodplains manager to notify adjacent communities, the South Carolina Department of Natural Resources, Land Resources and Conservation Division, State Coordinator for the NFIP, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to DHS-FEMA, NFIP.
 - b. In addition to the notifications required watercourse alterations per subsection 16-83(3)a., it is the responsibility of the floodplains manager to maintain written reports of maintenance records to show that maintenance has been provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished. This maintenance must consist of a comprehensive program of periodic inspections, and routine channel clearing and dredging, or other related functions. The assurance shall consist of a

description of maintenance activities, frequency of performance, and the local person responsible for maintenance performance. Records shall be kept on file for DHS-FEMA inspection.

- (4) *Floodway encroachments.* It is the responsibility of the floodplains manager to minimize and manage encroachments within the floodway.
- (5) *Adjoining floodplains.* It is the responsibility of the floodplains manager to cooperate with neighboring communities with respect to the management of adjoining floodplains and/or flood-related erosion areas in order to prevent aggravation of existing hazards.
- (6) *Notifying adjacent communities.* It is the responsibility of the floodplains manager to notify adjacent communities prior to permitting substantial commercial developments and large subdivisions to be undertaken in areas of special flood hazard and/or flood-related erosion hazards.
- (7) *Documentation review.* It is the responsibility of the floodplains manager to accept and review documentation for all structures located in the special flood hazard areas in accordance with this article.
- (8) *Floodproofing certifications.* When floodproofing is utilized for a particular structure, the floodplains manager is authorized to require the property owner or other responsible party provide certifications from a state-registered professional engineer or architect in accordance with the nonresidential construction requirements outlined in subsection 16-122(2).
- (9) *Map interpretation.* Where interpretation is needed as to the exact location of boundaries of the special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), it is the responsibility of the floodplains manager to make the necessary interpretation. The person contesting the location of the special flood hazard area boundary may obtain an approved LOMA from DHS-FEMA, or he or she may appeal the interpretation as provided for in this article.
- (10) *Prevailing authority.* Where a map boundary showing an area of special flood hazard and field elevations disagree, the base flood elevations for flood protection elevations (as found on an elevation profile, floodway data table, etc.) shall prevail. The correct information should be submitted to FEMA as per the map maintenance activity requirements outlined in section 16-84.
- (11) *Use of best available data.* When base flood elevation data and floodway data has not been provided in accordance with section 16-32, obtain, review, and reasonably utilize best available base flood elevation data and floodway data available from a federal, state, or other source, including data developed pursuant to the standards for subdivision proposals outlined in section 16-125, in order to administer the provisions of this article. Data from preliminary, draft, and final flood insurance studies constitutes best available data from a federal, state, or other source. Data must be developed using hydraulic models meeting the minimum requirement of NFIP approved model. If an appeal is pending on the study in accordance with 44 CFR ch. 1, parts 67.5 and 67.6, the data does not have to be used.
 - a. For a project greater than five acres or more than 50 lots, a detailed study is required, using detailed methods as are acceptable by the Department of Homeland Security-FEMA, utilizing floodplain geometry, hydrology and hydraulics to analyze the pre- and post-development conditions. All studies shall take into consideration a "full build out" condition for the studied watershed area. Such analysis shall be undertaken by a state-licensed professional engineer, who shall certify that the technical methods used reflect currently accepted engineering practices. Studies, analysis and computations shall be submitted in sufficient detail to allow review and approval by the floodplains manager, and in a digital format compatible with the requirements and standards of Oconee County GIS. The accuracy of the data submitted for such determination shall be the sole responsibility of the applicant.
 - b. After review of the detailed study by the floodplains manager, the applicant shall submit to DHS-FEMA an application for a LOMR, based upon existing site conditions. Applications

for encroachments and/or modifications to the special flood hazard area will be evaluated and processed as described in subsection 16-82(7) and subsection 16-122(11)f. The applicant shall be responsible for all technical submissions and fees to DHS-FEMA in order to obtain the map change. The development permit will not be issued until DHS-FEMA has issued the LOMR or CLOMR, as applicable.

- (12) *Special flood hazard area conflicts with topographic boundaries.* When the exact location of boundaries of the special flood hazard areas conflict with the current, natural topographical information at the site, the property owner may apply and be approved for a LOMA by DHS-FEMA, NFIP. The floodplains manager will file a copy of the LOMA issued by DHS-FEMA, NFIP in the permit file.
- (13) *On-site inspections.* It is the responsibility of the floodplains manager to make on-site inspections of projects in accordance with the administrative procedures outlined in subsection 16-85(1).
- (14) *Administrative notices.* The floodplains manager is authorized to serve notices of violations, issue stop-work orders, revoke permits and direct corrective actions in accordance with administrative procedures outlined in section 16-85.
- (15) *Records maintenance.* It is the responsibility of the floodplains manager to maintain all records pertaining to the administration of this article and make these records available for public inspection.
- (16) *Annexation and detachments.* It is the responsibility of the floodplains manager to notify the South Carolina Department of Natural Resources Land, Water and Conservation Division, within six months, of any annexations or detachments that include special flood hazard areas.
- (17) *Federally funded development.* The President issued Executive Order 11988, Floodplain Management May 1977. E.O. 11988 directs federal agencies to assert a leadership role in reducing flood losses and losses to environmental values served by floodplains. Proposed developments must go through an eight-step review process. Evidence of compliance with the executive order must be submitted as part of the permit review process.
- (18) *Substantial damage determination.* It is the responsibility of the floodplains manager to determine damage to structures located in the special flood hazard areas, regardless of the source of the damage and notify the owner of the property of such finding.
- (19) *Substantial improvement determination.* It is the responsibility of the floodplains manager to perform an assessment of permit applications for improvements or repairs to be made to a building or structure equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. Cost of work counted for determining if and when substantial improvement to a structure occurs shall be cumulative for a period of five years. If the improvement project is conducted in phases the total of all cost associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether "substantial improvement" will occur.

The market values shall be determined by one of the following methods:

- a. The current assessed building value as determined by the county's assessor's office or the value of an appraisal performed by a licensed appraiser at the expense of the owner within the past six months;
- b. One or more certified appraisals from a state-registered professional licensed appraiser. The appraisal shall indicate actual replacement value of the building or structure in its pre-improvement condition, less depreciation for functionality and obsolescence and site improvements. The Marshall & Swift Residential Cost Handbook shall be used to determine costs for buildings or structures; or
- c. Real estate purchase contract within 12 months prior to the date of the application for a permit.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-84. - Map maintenance activities.

The National Flood Insurance Program requires flood data to be reviewed and approved by DHS-FEMA. This ensures that flood maps, studies and other data identified in section 16-32 accurately represent flooding conditions so appropriate special flood hazard area management criteria are based on current data, the following map maintenance activities are identified:

- (1) *Requirement to submit new technical data.*
 - a. For all development proposals that impact floodway delineations or BFEs, the floodplains manager shall ensure that technical data reflecting such changes is submitted to DHS-FEMA within six months of the date such information becomes available. These development proposals include:
 1. Floodway encroachments that increase or decrease BFEs or alter floodway boundaries;
 2. Fill sites to be used for the placement of proposed structures where the applicant desires to remove the site from the special flood hazard area;
 3. Alteration of watercourses that result in a relocation or elimination of the special flood hazard area, including the placement of culverts; and
 4. Subdivision or large scale development proposals requiring the establishment of base flood elevations in accordance with section 16-125.
 - b. It is the responsibility of the applicant to have technical data, required in accordance with section 16-84, prepared in a format required for a CLOMR or LOMR, and submitted to DHS-FEMA. Submittal and processing fees for these map revisions shall also be the responsibility of the applicant.
 - c. The floodplains manager shall require a CLOMR prior to the issuance of a floodplain development permit for:
 1. Proposed floodway encroachments that increase the base flood elevation; and
 2. Proposed development which increases the base flood elevation by more than one foot in areas where DHS-FEMA has provided base flood elevations but no floodway.
 - d. Development permits issued by the floodplains manager shall be conditioned upon the applicant obtaining a LOMR from DHS-FEMA for any development proposal subject to section 16-84.
- (2) *Right to submit new technical data.* The floodplain manager may request changes to any of the information shown on an effective map that does not impact floodplain or floodway delineations or base flood elevations, such as labeling or planimetric details. Such a submission shall include appropriate supporting documentation made in writing by the local jurisdiction and may be submitted at any time.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-85. - Administrative procedures.

- (a) *Inspections of work in progress.* As the work pursuant to a permit progresses, the floodplains manager shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of this article and the terms of the permit. In exercising this responsibility, the floodplains manager, and each member of the floodplains manager's inspections department, has the authority, upon presentation of proper credentials, to enter on any premises

within the territorial jurisdiction at any reasonable hour for the purposes of inspection or other enforcement action.

- (b) *Stop work orders.* The floodplains manager may utilize stop work orders to prevent violations of this article, and in doing so, the following procedure shall be followed:
- (1) The floodplains manager may order the work to be immediately stopped whenever a building, or part thereof, or development is being constructed, reconstructed, altered, or repaired in violation of this article or in violation of any regulation adopted or order issued pursuant to this article, and either:
 - a. The violation or work being performed will alter the special flood hazard area in such a way that it would be difficult to abate the violation without substantial cost;
 - b. The violation or work being performed would cause irreparable harm to the special flood hazard area;
 - c. The violation or work being performed alters a watercourse; or
 - d. The work being performed requires a development permit or certification and the work is being performed without a required development permit or certification.
 - (2) The stop work order shall be in writing and shall state what work is to be stopped and what measures are required to abate the violation. The order shall include a statement of the findings made by the floodplains manager and shall list the conditions under which work that has been stopped by the order may be resumed. The delivery of equipment and materials, which does not contribute to the violation, may continue while the stop work order is in effect. A copy of this section may be attached to the stop work order.
 - (3) The stop work order shall be served on the person responsible for the work by a person duly authorized by law to serve process. The person duly authorized by law to serve process shall also post a copy of the stop work order in a conspicuous place at the site of the work. The floodplains manager may also deliver a copy of the stop work order to any person that the floodplains manager has reason to believe may be responsible for the violation.
 - (4) The directives of a stop work order become effective upon service of the order. Thereafter, any person notified of the stop work order who violates any of the directives set out in the stop work order may be assessed a penalty as provided in section 16-38. A stop work order issued pursuant to this section may remain in force until all non-compliant issues are rectified in the sole discretion of the floodplains manager.
 - (5) The floodplains manager shall monitor compliance with the stop work order. The floodplains manager shall rescind the stop work order, in writing, if all the violations for which the stop work order is issued are corrected, no other violations have occurred, and all measures necessary to abate the violations have been taken. The floodplains manager shall rescind a stop work order that is issued in error.
- (c) *Revocation of permits.* The floodplains manager may revoke and require the return of the development permit by notifying the permit holder in writing, stating the reason for the revocation. Permits shall be revoked for departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any permit issued in error in violation of an applicable state or local law may also be revoked.
- (d) *Periodic inspections.* The floodplains manager, and each member of the floodplains manager's inspections department, has the authority, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.
- (e) *Initial notice of violation.* When the floodplains manager finds violations of applicable laws, the floodplains manager has the authority to notify the owner of the property of the violation. The owner

shall take necessary actions to immediately correct each of the violations in accordance with this article.

- (f) *Actions in event of failure to take corrective action.* If prompt action is not taken to correct the violation, the floodplains manager shall give the owner(s) of the property written notice, by certified or registered mail, to the last known address of the owner(s), or by personal service, that:
 - (1) The building or property is in violation of this article, and
 - (2) A hearing will be held before the floodplains manager at a designated place and time, not later than ten days after the date of the notice, at which time the owner(s) shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter.
- (g) *Order to take corrective action.* If, upon a hearing held pursuant to the notice prescribed above, the floodplains manager finds that the property is in violation of this article, the floodplains manager shall make an order in writing to the owner(s), requiring that the owner(s) remedy the violation within such period the floodplains manager may prescribe, not less than 60 days. If the floodplains manager finds that there is imminent danger to life or other property, the floodplains manager may order that corrective action be taken in such lesser period as may be feasible.
- (h) *Appeal.* Any person who has received an order to take corrective action and/or stop work order may appeal the order to the board of zoning appeals by giving notice of appeal in writing to the floodplains manager within ten days following issuance of the final order. In the absence of an appeal, the order of the floodplains manager shall be final, or in the case of stop work orders, the stop work order will stand as issued. The board of zoning appeals shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.
- (i) *Failure to comply with order.* If the owner(s) fail to comply with an order to take corrective action or stop work order from which no appeal has been taken, or if the owner(s) fail to comply with an order of the board of zoning appeals following an appeal, the owner(s) shall be guilty of a misdemeanor and shall be punished in the discretion of the court. Each such person, firm, corporation or agent shall be deemed guilty of a separate offense for each and every day, or portion thereof, during which any violation of any of the provisions of this article is committed, or continued.
- (j) *Denial of flood insurance under the NFIP.* If a property is declared in violation of this article and the violation is not remedied, the floodplains manager shall notify DHS-FEMA to initiate an action against property under section 1316 of the National Flood Insurance Act of 1968. Once a violation has been remedied the floodplains manager shall notify DHS-FEMA of the remedy and ask that the action under section 1316 be rescinded.
- (k) *[Incorporation by reference.]* The following documents are incorporated by reference and may be used by the local floodplain manager to provide further guidance and interpretation of this chapter as found on FEMA's website at www.fema.gov:
 - (1) FEMA 55 Coastal Construction Manual;
 - (2) All FEMA Technical Bulletins;
 - (3) All FEMA Floodplain Management Bulletins;
 - (4) FEMA 348 Protecting Building Utilities from Flood Damage; and
 - (5) FEMA 499 Home Builder's Guide to Coastal Construction Technical Fact Sheets.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Secs. 16-86—16-120. - Reserved.

DIVISION 3. - FLOOD HAZARD REDUCTION

Sec. 16-121. - General standards.

Where alternative locations exist, development may not occur in the special flood hazard areas due to the inherent hazards and risks involved. Before a permit is issued, the applicant shall demonstrate that new structures cannot be located out of the special flood hazard areas and that encroachments onto the special flood hazard areas are minimized. In all special flood hazard areas the following provisions are required:

- (1) *Reasonably safe from flooding.* Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding.
- (2) *Anchoring.* All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (3) *Flood-resistant materials and equipment.* All new construction and substantial improvements shall be constructed with flood-resistant materials and utility equipment resistant to flood damage.
- (4) *Minimize flood damage.* All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages.
- (5) *Utilities.* 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 plus two feet.
- (6) *Water supply systems.* All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (7) *Sanitary sewage systems.* 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. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (8) *Gas or liquid storage tanks.* All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent flotation or lateral movement resulting from hydrodynamic and hydrostatic loads.
- (9) *Alteration, repair, reconstruction, or improvements.* Any alteration, repair, reconstruction, or improvement to a structure must be in compliance with the provisions of this article, and shall meet the requirements of new construction as contained in this article. This includes post-FIRM development and structures. Alterations, repairs, reconstruction, or improvements shall not alter the flood carrying capacity within the altered or relocated portion of any watercourses.
- (10) *Nonconforming buildings or uses.* Nonconforming buildings or uses may not be enlarged, replaced, or rebuilt unless such enlargement or reconstruction is accomplished in conformance with the provisions of this article. Provided, however, nothing in this article shall prevent the repair, reconstruction, or replacement of an existing building or structure located totally or partially within the special flood hazard area, provided that the bulk of the building or structure below BFE is not increased and provided that such repair, reconstruction, or replacement meets all of the other requirements of this article.
- (11) *Accessibility.* A building must meet the specific standards for construction outlined in section 16-122, as well as any applicable accessibility requirements promulgated by the state building codes council. The accessibility requirements are not justification for issuing a variance or otherwise waiving these requirements. The cost of improvements required to meet the accessibility provisions shall also be included in the costs of the improvements for calculating substantial improvement.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-122. - Specific standards.

In all special flood hazard areas that are designated as zones A, AE, AH, AO, and A1-30, where base flood elevation data has been provided, as set forth in section 16-32 or outlined in the duties and responsibilities of the floodplains manager section 16-83, the following provisions are required:

- (1) *Residential construction.* New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor elevated no lower than three feet above the base flood elevation. No basements are permitted. 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 the elevated buildings requirements in subsection 16-122(5).
- (2) *Nonresidential construction.* New construction or substantial improvement of any commercial, industrial, or nonresidential structure (including manufactured homes) shall have the lowest floor elevated no lower than three feet above the level of 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 the elevated buildings requirements in subsection 16-122(5). No basements are permitted. Structures located in special flood hazard areas that are designated as either zone A or zone AE may be floodproofed in lieu of elevation provided that all areas of the structure below the required elevation are watertight with walls substantially impermeable to the passage of water, using structural components capable of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A state-registered, professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certifications shall be provided to the floodplains manager as set forth in the floodproofing certification requirements in section 16-83. A variance may be considered for wet floodproofing agricultural structures in accordance with the criteria outlined in section 16-165 of this article. Agricultural structures not meeting the criteria of section 16-165 must meet the non-residential construction standards and all other applicable provisions of this article. Structures that are floodproofed are required to have an approved maintenance plan with an annual exercise. The maintenance plan must be approved by the floodplains manager, and notification of the annual exercise shall be provided to the same.
- (3) *Critical facilities.*
 - a. Existing critical facilities in the special flood hazard area that are substantially damaged or substantially improved as well as new and substantially improved critical facility structures shall be elevated or floodproofed in accordance with this article.
 - b. New critical facilities shall not be permitted in the special flood hazard area.
- (4) *Manufactured homes.*
 - a. Conditions requiring placement of manufactured home on permanent foundation. Manufactured homes that are placed or substantially improved on sites outside a manufactured home park or subdivision, in a new manufactured home park or subdivision, in an expansion to an existing manufactured home park or subdivision, or in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood, must be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated no lower than three feet above the base flood elevation and securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
 - b. Conditions permitting placement of manufactured home on permanent foundation. Manufactured homes that are to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the provisions for residential construction in subsection 16-122(1) of this article must be elevated so that the lowest floor of the manufactured home is elevated no lower than three feet above the base flood elevation, and securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement.

- c. Anchoring. Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. For the purpose of this requirement, manufactured homes must be anchored to resist flotation, collapse, or lateral movement in accordance with section 19-425.42 of the South Carolina Manufactured Housing Board Regulations, as amended. Additionally, when the elevation requirement would be met by an elevation of the chassis at least 36 inches or less above the grade at the site, the chassis shall be supported by reinforced piers or other foundation elements of at least equivalent strength. When the elevation of the chassis is above 36 inches in height, an engineering certification is required.
 - d. Evacuation plan. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood-prone areas. This plan shall be filed with and approved by the floodplains manager and the Oconee County Emergency Services Department.
- (5) *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas usable solely for the parking of vehicles, building access, or limited storage in an area other than a basement, and which are subject to flooding shall be designed to preclude finished space and to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.
- a. Certification or minimum criteria. Designs for complying with this requirement must either be certified by a state professional engineer or architect or meet the following minimum criteria:
 - 1. Provide a minimum of two openings on different walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
 - 2. The bottom of all openings shall be no higher than one foot above grade;
 - 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;
 - 4. Fill placed around foundation walls must be graded so that the grade inside the enclosed area is equal to or higher than the adjacent grade outside the building on at least one side of the building; and
 - 5. Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.
 - b. Hazardous velocities. Hydrodynamic pressure must be considered in the design of any foundation system where velocity waters or the potential for debris flow exists. If flood velocities are excessive (greater than five feet per second), foundation systems other than solid foundations walls should be considered so that obstructions to damaging flood flows are minimized.
 - c. Enclosures below BFE.
 - 1. Access to the enclosed area. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door), limited storage of maintenance equipment used in connection with the premises (standard exterior door), or entry to the living area (stairway or elevator).
 - 2. Requirements for the interior portion of the enclosed area. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose a single storage area and must be void of utilities except for essential lighting as required, and cannot be temperature controlled. 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 the specific standards outlined in subsection 16-122(1), (2) and (4).

3. Flood-resistant construction materials. All construction materials below the required lowest floor elevation specified in the specific standards outlined in subsection 16-122(1), (2) and (4) should be of flood resistant materials.

(6) *Accessory structures.*

- a. A detached accessory structure or garage, greater than 400 square feet must comply with the elevated structure requirements of subsection 16-122(5) or floodproofed in accordance with subsections 16-122(2).
- b. When an accessory structure less than 400 square feet is to be placed in the special flood hazard area, the following additional criteria shall be met:
 1. Accessory structures shall not be used for human habitation (including work, sleeping, living, cooking or restroom areas);
 2. Accessory structures shall be designed to have low flood damage potential;
 3. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
 4. Accessory structures shall be firmly anchored to prevent flotation, collapse or lateral movement of the structure;
 5. Service facilities such as electrical and heating equipment shall be installed in accordance with section 16-121;
 6. Openings to relieve hydrostatic pressure during a flood shall be provided below BFE in conformance with subsection 16-122(5)a.; and
 7. Accessory structures shall be built with flood-resistance materials in accordance with Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, dated 8/08, and available from the Federal Emergency Management Agency. Class 4 and 5 materials, referenced herein, are acceptable flood-resistant materials.

(7) *Floodways.* Floodways have erosion potential and are extremely hazardous areas due to the velocity of floodwaters carrying debris and potential projectiles. The following provisions shall apply to floodways:

- a. No encroachments, including fill, new construction, substantial improvements, additions, and other developments, shall be permitted in a floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood. Such certification and technical data shall be presented to the floodplains manager; or

A conditional letter of map revision (CLOMR) has been approved by FEMA. A letter of map revision must be obtained upon completion of the proposed development.

- b. If subsection 16-122(7)a. is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of division 3.
- c. 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 the elevation standards of subsection 16-122(4) are met.
- d. Permissible uses within a floodway may include: general farming, pasture, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife, and related uses. Lawns, gardens, play areas, picnic grounds, and hiking and horseback riding trails are acceptable uses, provided that they do not employ structures or fill. Substantial development of a permissible use may require a no-impact certification. A use listed in this division is permissible only if the use causes no adverse

effect on the floodway, any increase in the BFE, or any change to the floodway configuration.

(8) *Recreational vehicles.*

- a. A recreational vehicle is ready for highway use if it:
 1. Is on wheels or a jacking system;
 2. Is attached to the site only by quick-disconnect type utilities and security devices; and
 3. Has no permanently attached additions.
- b. Recreational vehicles placed on sites shall either:
 1. Be on site for fewer than 180 consecutive days and fully licensed and ready for highway use; or
 2. Meet the development permit and certification requirements of section 16-82, general standards outlined in section 16-121, and manufacture homes standards in subsection 16-122(4).

(9) *Swimming pool utility and/or equipment structures.* If a swimming pool utility and/or equipment structure cannot be built at or above the BFE because of functionality of the equipment, then such structure may be built below the BFE with the following provisions:

- a. The structure must meet the requirements for accessory structures in subsection 16-122(6).
- b. The utilities and/or equipment must be anchored to prevent flotation, and the structure shall be designed to prevent water from entering or accumulating within the components during a flood.

(10) *Elevators.* A float switch system, or other similar system that provides the same level of safety, shall be installed for all elevators where there is a potential for the elevator cab to descend below the BFE during a flood per DHS-FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas. All equipment that may have to be installed below the BFE such as counterweight 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 DHS-FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.

(11) *Fill.* An applicant shall demonstrate that fill is the only alternative to raising the building to meet the residential and non-residential construction requirements of subsections 16-122(1) and (2), and that the amount of fill used will not affect the flood storage capacity or adversely affect adjacent properties. The following provisions shall apply to all fill placed in the special flood hazard area:

- a. Fill may not be placed in the floodway unless it is in accordance with the requirements in subsection 16-122(7)a.
- b. Fill may not be placed in wetlands without the required state and federal permits.
- c. Fill must consist of soil and rock materials only. Dredged material may be used as fill only upon certification of suitability by a state-registered professional geotechnical engineer. Landfills, rubble fills, dumps, and sanitary fills are not permitted in the special flood hazard area.
- d. Fill used to support structures must comply with ASTM Standard D-698, as amended, and its suitability to support structures certified by a state-registered, professional engineer.
- e. Fill slopes shall be no greater than two horizontal to one vertical. Flatter slopes may be required where velocities may result in erosion; and,

- f. No encroachment, including fill, shall be permitted within an special flood hazard area, unless certification with supporting technical data, prepared by a state-registered engineer, is provided to demonstrate that the encroachment will not result in adverse impact to the special flood hazard area. Adverse impact includes, but is not limited to, an increase in BFE, floodway elevation and floodway width. The demonstration shall include hydrologic and hydraulic analyses performed in accordance with standard engineering practice that meets the requirements of the NFIP. Compensatory storage at hydraulically equivalent sites within the proposed project area may be used as part of the required demonstration, with prior approval of the floodplains manager. If the encroachment results in adverse impact to the special flood hazard area, the applicant shall submit to DHS-FEMA a CLOMR or other appropriate map change application. Within 30 calendar days of completion of construction activities, the applicant shall apply to DHS-FEMA for a LOMR. The development permit will not be issued until DHS-FEMA has issued the CLOMR. The applicant is responsible for all technical submissions and fees required to obtain the CLOMR/LOMR.
 - g. The use of fill shall not increase flooding or cause drainage problems on neighboring properties.
 - h. Will meet the requirements of FEMA Technical Bulletin 10-01, Ensuring That Structures Built On Fill in or Near Special Flood Hazard Areas Are Reasonably Safe from Flooding.
- (12) *Drainage paths in zones AH and AO.* In all special flood hazard areas that are designated as zones AH and AO, drainage paths shall be constructed around structures on slopes to guide floodwaters around and away from proposed structures.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-123. - Standards for streams without established base flood elevations and/or floodways.

Located within the special flood hazard areas that are designated as zone A, are small streams where no base flood data has been provided or where no floodways have been identified. The following provisions apply within such areas:

- (1) No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within 100 feet of the stream bank unless certification with supporting technical data by a state-registered, professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) If subsection 16-123(1) is satisfied and base flood elevation data is available from other sources, all new construction and substantial improvements within such areas shall comply with all applicable provisions of division 3 and shall be elevated or floodproofed in accordance with elevations established in accordance with subsection 16-83(9).

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-124. - Standards for streams with established base flood elevations but without floodways— Along rivers and streams where base flood elevation (BFE) data is provided but no floodway is identified for a special flood hazard area on the FIRM or in the FIS.

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.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-125. - Standards for subdivision proposals.

- (a) All subdivision proposals shall be consistent with the need to minimize flood damage and are subject to all applicable standards in this article.
- (b) All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical and water systems, located and constructed to minimize flood infiltration damage.
- (c) All subdivision proposals shall provide for adequate drainage provided to reduce exposure to flood damage.
- (d) Base flood elevation data shall be provided for subdivision proposals and other proposed development.
 - (1) The base flood elevation data shall be obtained in accordance with section 16-32; or
 - (2) In all special flood hazard areas where base flood elevation data are not available, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations for all subdivision proposals and other proposed developments containing at least 50 lots or five acres, whichever is less.
- (e) All building lots containing special flood hazard areas or immediately adjacent to these areas shall have the proposed lowest floor elevation for each structure, in accordance with subsection 16-122(1), noted on the preliminary and final plat drawings.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-126. - Standards for areas of shallow flooding (AO zones).

Located within the special flood hazard areas established in section 16-32 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 feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of nonresidential structures shall:
 - a. Have the lowest floor elevated to the depth number specified on the FIRM, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least three feet above the highest adjacent grade; or,
 - b. Be completely floodproofed together with attendant utilities or sanitary sewage systems 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.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Secs. 16-127—16-160. - Reserved.

DIVISION 4. - VARIANCE PROCEDURES

Sec. 16-161. - Appeal board.

The board of zoning appeals of Oconee County, as established by Oconee County in ch. 38, art. 6 of this Code of Ordinances, shall hear and decide requests for variances from the requirements of this article. The application for a variance shall be filed on a form obtained from the floodplains manager.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-162. - Limitation on authority.

An application for variance shall be based on a claim that the true intent of this article, or the rules legally adopted thereunder, have been incorrectly interpreted; the provisions of this article do not fully apply; or an equally good or better form of construction is proposed.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-163. - Right to appeal.

Any person aggrieved by the decision of the appeal board or any taxpayer may appeal such decision to the circuit court within 30 days.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-164. - 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.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-165. - 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 DHS-FEMA. 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 section 16-169, 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. Irrigation sheds in connection with agricultural uses only, which are no greater than 200 square feet in area,
 - d. General-purpose barns for the temporary feeding of livestock that are open on at least one side; and
 - e. For livestock confinement buildings, poultry houses, dairy operations, and similar livestock operations, variances may not be issued for substantially damaged structures. New

construction or substantial improvement of such structures must meet the elevation requirements of subsection 16-122(2) of this article.

- (2) In the case of a substantially damaged existing structure, the agricultural structure must be built or rebuilt 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 buoyancy, hydrostatic, hydrodynamic, and debris impact forces. Where flood velocities exceed five 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 subsection 16-122(5) of this article.
- (5) Any mechanical, electrical, or other utility equipment must be located above the base flood elevation or contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with section 16-121 of this article.
- (6) The agricultural structure must comply with the floodway encroachment provisions of subsection 16-122(7).
- (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 without risk to lives and that the contents will be located to a specified site out of the special flood hazard area.
- (8) The agricultural structure must be located in wide, expansive special flood hazard areas, where no other alternative location for the agricultural structure exists. The applicant must demonstrate that the entire farm acreage, consisting of a contiguous parcel of land on which the structure is to be located, is in the special flood hazard area and no other alternative locations for the structure are available.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-166. - Considerations.

In passing upon such applications, the board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this article, and:

- (1) The danger that materials may be swept onto other lands to the injury of others;
- (2) The danger to life and property due to flooding or erosion damage, and the safety of access to the property in times of flood for ordinary and emergency vehicles;
- (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (4) The importance of the services provided by the proposed facility to the community;
- (5) The necessity to the facility of a waterfront location, where applicable;
- (6) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (7) The compatibility of the proposed use with existing and anticipated development, and the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

- (8) 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;
- (9) 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.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-167. - Findings.

Findings listed above shall be submitted to the appeal board, in writing, and included in the application for a variance. Additionally, comments from the department of natural resources, land, water and conservation division, state coordinator's office, must be taken into account and included in the permit file.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-168. - Variances in floodways.

Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result unless a CLOMR is obtained prior to issuance of the variance. In order to insure the project is built in compliance with the CLOMR for which the variance is granted the applicant must provide a bond for 100 percent of the cost to perform the development.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)

Sec. 16-169. - Conditions.

Upon consideration of the factors listed above and the purposes of this article, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this article. The following conditions shall apply to all variances:

- (1) Variances may not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.
- (2) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (3) Variances shall only be issued upon a showing of good and sufficient cause, a determination that failure to grant the variance would result in exceptional hardship, and a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- (4) The appeal board may consider the possible impacts on flood insurance premiums and the size of the lot in question.
- (5) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the BFE and the elevation to which the structure is to be built and a written statement that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. Such notification shall be maintained with a record of all variance actions.
- (6) Upon request, the floodplains manager shall maintain the records of all appeal actions and report any variances to DHS-FEMA.

- (7) Variances shall not be issued for unpermitted development or other development that is not in compliance with the provisions of this article. Violations must be corrected in accordance with section 16-85.

(Ord. No. 2016-25, § 1(Exh. A), 9-19-2019)