

Caroline County Board of Supervisors Agenda Executive Summary

Meeting Date: December 14, 2021

Title: TXT-03-2021 – Zoning Ordinance
Repeal Article XV, Supplemental Regulations, Section 6
Flood Hazard Zones

(Check Mark)

Consent

Action

No Action (Information Only)

Resolution

Closed Meeting

Public Hearing

Ordinance

PowerPoint Presentation

Summary: Planning staff is bringing forward for public hearing, TXT-03-2021, that removes Article XV, Section 6 Flood Hazard zones from the zoning ordinance.

In April 2016, The Board of Supervisors adopted a new Flood Plain Ordinance incorporating it into Chapter 45 of the Code of Caroline thereby rendering Section 6 of the Zoning Ordinance obsolete.

As a matter of “housekeeping” and to avoid confusion, Section 6 should be repealed from the zoning ordinance.

The Board held a first reading at the November 9th meeting and authorized advertisement a public hearing for December 14th.

The text amendment is as follows:

TXT-03-2021 - An Ordinance to amend the Zoning Ordinance of Caroline County by Repealing Article XV, Supplemental Regulations, Section 6-Flood Hazard Zones. This section was replaced by Chapter 45, Article II of the Code of Caroline.

Budget Impact: None

Action(s) requested of the Board of Supervisors: Conduct public hearing and adopt TXT-03-2021.

Presenter: Michael A. Finchum, Director, Planning & Community Development

TXT-03-2021 - REPEAL THE FOLLOWING SECTION FROM THE ZONING
ORDINANCE - ARTICLE XV, SECTION 6

SECTION 6 – Flood Hazard Zones

Section 6.1 - Purpose

The purpose of these provisions is to prevent: the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by:

- A. Regulating uses, activities, and development which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies;
- B. Restricting or prohibiting certain uses, activities, and development from locating within districts subject to flooding;
- C. Requiring all those uses, activities, and developments that do occur in flood-prone districts to be protected and/or flood-proofed against flooding and flood damage; and,
- D. Protecting individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

Section 6.2 - Applicability

These provisions shall apply to all lands within the jurisdiction of The County of Caroline and identified as being in the 100-year floodplain by the Federal Insurance Administration.

Section 6.3 - Compliance and Liability

- A. No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with the terms and provisions of this ordinance and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this ordinance.
- B. The degree of flood protection sought by the provisions of this ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that districts outside the floodplain district or that land uses permitted within such district will be

free from flooding or flood damages.

- C. Records of actions associated with administering this ordinance shall be kept on file and maintained by the Department of Planning & Community Development (DPCD).
- D. This ordinance shall not create liability on the part of the County of Caroline or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made there under.

Section 6.4 - Abrogation and Greater Restrictions

This ordinance supersedes any ordinance currently in effect in flood-prone districts. However, any underlying ordinance shall remain in full force and effect to the extent that its provisions are more restrictive than this ordinance.

Section 6.5 - Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance shall be declared invalid for any reason whatever, such decision shall not affect the remaining portions of this ordinance. The remaining portions shall remain in full force and effect; and for this purpose, the provisions of this ordinance are hereby declared severable.

Section 6.6 - Description of Districts

- A. Basis of Districts

The various floodplain districts shall include special flood hazard areas. The basis for the delineation of these districts shall be the Flood Insurance Study (FIS) and the Flood Insurance Rate Maps for the County of Caroline prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated March 2, 2009, as amended.

The approximated Floodplain Area shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred (100) year floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the Flood Insurance Study for the County of Caroline prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated March 2, 2009, as amended. For these areas, the one hundred (100) year flood elevations and floodway information from federal, state and other acceptable sources shall be used, when available. Where the specific one hundred (100) year flood elevation cannot be determined for this area using other sources of data, such as the U.S. Army Corps of Engineers Floodplain Information Reports, U.S. Geological Survey Flood-prone Quadrangles, etc., then the applicant for the proposed use and/or activity shall determine this elevation in accordance with accepted hydrologic and hydraulic engineering techniques.

Hydrologic and hydraulic analyses shall be undertaken only by professional engineers licensed by the Commonwealth of Virginia, who shall certify that the technical methods used correctly reflect currently accepted technical concepts and methodologies. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the County and/or agencies as required.

1. The Special Floodplain District shall be those areas identified as an AE Zone on the maps accompanying the Flood Insurance Study for which one hundred (100)-year flood elevations have been provided but for which no floodway has been delineated.
2. The Approximated Floodplain District shall be those areas identified as an A Zone on the maps accompanying the Flood Insurance Study. In these zones, no detailed flood profiles or elevations are provided, but the one hundred (100)-year floodplain boundary has been approximated.

B. Overlay Concept

1. The Floodplain Districts described above shall be overlays to the existing underlying districts as shown on the Official Zoning Ordinance Map, and as such, the provisions for the floodplain districts shall serve as a supplement to the underlying district provisions.
2. Any conflict between the provisions or requirements of the Floodplain Districts and those of any underlying district, the more restrictive provisions and/or those pertaining to the floodplain districts shall apply.
3. In the event any provision concerning a Floodplain District is declared inapplicable as a result of any legislative or administrative actions or judicial decision, the basic underlying provisions shall remain applicable.

Section 6.7 - Official Zoning Map

The boundaries of the Special Flood Hazard Area and Floodplain Districts are established as shown on the Flood Boundary and Floodway Map and/or Flood Insurance Rate Map which is declared a part of this ordinance and which shall be kept on file at the County of Caroline's DPCD offices.

Section 6.8 - District Boundary Changes

The delineation of any of the Floodplain Districts may be revised by the County of Caroline Board of Supervisors where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U. S. Army Corps of Engineers or other qualified agency, or an individual documents the need for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration.

Section 6.9 - Interpretation of District Boundaries

Initial interpretations of the boundaries of the Floodplain Districts shall be made by the Zoning Administrator. Should a dispute arise concerning the boundaries of any of the Districts, the applicant may appeal to the Board of Zoning Appeals in accordance with Article 18, Section 3 of this ordinance and Code of Virginia 15.2-2309 (1950 as amended).

Section 6.10 – Permit and Application Requirements

A. Permit Requirement

All uses, activities, and development occurring within any floodplain district shall be undertaken only upon the issuance of a zoning/building permit or any other permit(s) required by Caroline County. Such development shall be undertaken only in strict compliance with the provisions of this Ordinance, the VA Uniform Statewide Building Code (USBC), all other applicable codes and ordinances, as amended, and the County of Caroline Subdivision Ordinance. Prior to the issuance of any such permit, the Zoning Administrator shall require all applications to include compliance with all applicable state and federal laws. Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.

B. Alteration or Relocation of a Watercourse

Prior to any proposed alteration or relocation of any channel or of any watercourse within this jurisdiction, a permit shall be obtained. If applicable, from the U. S. Army Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any one of these organizations). Further notification of the proposal shall be given, if applicable, to all adjacent jurisdictions, the Division of Dam Safety and Floodplain Management (Department of Conservation and Recreation), and the Federal Insurance Administration.

C. Site Plans and Permit Applications

All applications for development within any floodplain district and all building permits issued for the floodplain shall incorporate the following information:

1. The elevation of the Base Flood for the site.
2. The elevation of the lowest floor (including basement).
3. For structures to be flood-proofed (non-residential only), the elevation to which the structure will be flood-proofed.

A Certificate of Elevation may be used for new construction provided it addresses each of the issues as identified above.

- D. No new construction or development shall be permitted within the Floodplain District unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the elevation of the one hundred (100) year flood more than one foot at any point.
- E. Within any floodway area, no new construction or development shall be permitted that would cause any increase in the one hundred (100) year flood elevation.
- F. All manufactured homes (mobile homes) to be placed or substantially improved within the Floodplain District shall be placed on a permanent foundation and elevated and anchored in accordance with the Virginia Uniform Statewide Building Code. The lowest floor elevation, including basement, will be three feet or more above the one hundred (100) year flood elevation.
- G. All development in the Floodplain District and all building permits issued for the floodplain shall conform to the following:
 - 1. The lowest floor elevation, including basement, of any new or substantially improved residential structure shall be three feet or more above the one hundred (100) year flood elevation.
 - 2. Electrical Systems:
 - a. All electric water heaters, electric furnaces, and other electrical installations shall be prohibited below an elevation of three feet above the 100-year flood elevation.
 - b. Electrical distribution panels shall be placed at least three (3) feet above the 100- year flood elevation.
 - 3. Storage:

No materials that are buoyant, flammable, or explosive shall be stored in the 100-year floodplain, unless they are properly anchored or floodproofed to preclude their causing damage to life and property.

Section 6.11 - Permitted Uses in the 100-Year Floodplain District

All uses permitted in the underlying zoning district shall remain except for the following:

- A. Solid waste, landfills, dumps, junkyards, outdoor storage of inoperable motor vehicles, and/or materials.
- B. The filling of marshlands.
- C. Damming or relocation of any watercourse that will result in any downstream increase in flood levels during the base flood.

- D. The construction or storage of any object subject to flotation or movement during flooding.

Section 6.12 - General Standards

In all special flood hazard areas the following provisions shall apply:

- A. New construction and substantial improvements shall be done according to the VA USBC and anchored to prevent flotation, collapse or lateral movement of the structure.
- B. Manufactured 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.
- C. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- D. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage in accordance with these regulations.
- E. Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including ductwork, shall be designed and/or located to prevent water from entering or accumulating within the components during conditions of flooding.
- F. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- G. New and replacement public sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
- H. The subsurface soil absorption system for on-site waste disposal systems shall be not be located in flood plains subject to annual or more frequent sustained flooding,
- I. Any alteration, repair, reconstruction or improvements to a building that complies with the provisions of this ordinance shall meet the requirements of "new construction" as contained in this ordinance.
- J. Any alteration, repair, reconstruction or improvements to a building that does not comply with the provisions of this ordinance, shall be undertaken only if said non-conformity is not furthered, extended, or replaced.
- K. Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction a permit shall be obtained, if applicable, from the U. S. Corps of Engineers, the Virginia Department of

Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Furthermore, notification of the proposal shall be given by the applicant to all affected adjacent jurisdictions, the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and the Federal Insurance Administration.

- L. The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.

Section 6.13 - Specific Standards

In all special flood hazard areas where base flood elevations have been provided in the Flood Insurance Study or generated according to Section 6.6 of this Article, the following provisions shall apply:

- A. Residential Construction

New construction or substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, including basement, elevated no lower than three (3) above the base flood elevation.

- B. Non-Residential Construction

New construction or substantial improvement of any commercial, industrial, or non-residential building (or manufactured home) shall have the lowest floor, including basement, elevated to no lower than three (3) feet above the base flood elevation. Buildings located in all A1-30, AE, and AH zones may be flood-proofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus three (3) feet are water tight 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.

- C. Elevated Buildings

Enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:

1. Not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas;

2. Be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
3. Include, in Zones A and AE, measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria:
 - a. Provide a minimum of two openings on different sides of each enclosed area subject to flooding.
 - b. The total net area of all openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding.
 - c. If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
 - d. The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade.
 - e. Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.
 - f. Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.

D. Standards for Manufactured Homes and Recreational Vehicles

1. All manufactured homes placed, or substantially improved, on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, in a new 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 meet all the requirements for new construction, including the elevation and anchoring requirements in Section 6.12 of this Article.
2. All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision in which a manufactured home has not incurred substantial damage as the result of a flood shall be elevated so that either
 - a. The lowest floor of the manufactured home is elevated no lower than three (3) feet above the base flood elevation; or
 - b. The manufactured home chassis is supported by reinforced piers or other

foundation elements of at least equivalent strength that are no less than three (3) feet in height above grade;

- c. And be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement;
3. All recreational vehicles placed on sites must comply with the following:
- a. Be on the site for fewer than 180 consecutive days;
 - b. Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions); or,
 - c. Meet all the requirements for manufactured homes in Section 6.12 of this Article.

Section 6.14 - Standards for Approximated Floodplain

The following provisions shall apply within the Approximate Floodplain District:

- A. When base flood elevation data or floodway data have not been provided, the County of Caroline shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or any other source, in order to administer the provisions of Section 6.
- B. When such base flood elevation data is utilized, the Zoning Administrator shall obtain
 1. The elevation (in relation to the mean sea level) of the lowest floor (including the basement) of all new and substantially improved structures; and,
 2. If the structure has been floodproofed in accordance with the requirements of Section 6.13 of this Article, the elevation in relation to the mean sea level to which the structure has been floodproofed.
- C. When the data is not available from any source as in Section 6.6, the lowest floor of the structure shall be elevated to no lower than three (3) feet above the highest adjacent grade.

Section 6.15 - Standards for the Special Floodplain District

The following provisions shall apply within the Special Floodplain District:

Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the areas of special flood hazard, designated as Zone AE on the Flood Rate Insurance Map, unless it

is demonstrated 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 County of Caroline.

Development activities in Zones AE, and AH, on the County of Caroline's Flood Insurance Rate Map which increase the water surface elevation of the base flood by more than one (1) foot may be allowed, provided that the applicant first applies – with the County of Caroline's endorsement – for a conditional Flood Insurance Rate Map revision, and receives the approval of the Federal Emergency Management Agency.

Section 6.16 - Standards for the Floodway

The following provisions shall apply within the Floodway when it has been identified as in Section 6.6

- 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.

Development activities which increase the water surface elevation of the base flood may be allowed, provided that the applicant first applies – with the County of Caroline endorsement – for a conditional Flood Insurance Rate Map and floodway revision, and receives the approval of the Federal Emergency Management Agency.

- B. If Section 6.10 is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this article.
- C. The placement of manufactured homes (mobile homes) is prohibited, except in an existing manufactured homes (mobile homes) park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring, elevation, and encroachment standards are met.

Section 6.17 - Standards for Subdivision Proposals Within Floodplain District

- A. All subdivision proposals shall be consistent with the need to minimize flood damage;
- B. All subdivision proposals shall have utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage in accordance with this ordinance;
- C. All subdivision proposals shall have adequate drainage provided to reduce

exposure to flood hazards, and

- D. Floodplain data shall be provided for subdivision proposals and other proposed development proposals (including manufactured home parks and subdivisions) that exceed fifty (50) lots or five (5) acres, whichever is the lesser.

Section 6.18 - Design Criteria for Utilities and/or Public Facilities

- A. All new or replacement sanitary sewer facilities and private package sewage treatment plants, including pumping stations and collector systems, shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into the floodwaters. In addition, they should be located and constructed to minimize or eliminate flood damage and impairment.
- B. All new or replacement water facilities shall be designed to minimize or eliminate infiltration of flood waters into the system and must be located and constructed to minimize or eliminate flood damages
- C. All storm drainage facilities shall be designed to convey the flow of surface waters without damage to persons or property. The systems shall ensure drainage away from buildings and on-site waste disposal sites. Drainage plans shall be consistent with the county's stormwater management plan. The facilities shall be designed to prevent the discharge of excess run-off onto adjacent properties.
- D. All utilities, such as gas lines, electrical and telephone systems being placed in flood-prone areas should be located, elevated (where possible), and constructed to minimize the chance of impairment during a flooding occurrence.
- E. Streets and sidewalks should be designed to minimize their potential for increasing and aggravating the levels of flood flow. Draining openings shall be required to sufficiently discharge flood flows without unduly increasing flood heights. The finished elevation of all new streets shall be no more than one foot below the 100-year flood elevation.

Section 6.19 - Variances

In passing upon applications for Variances, the Board of Zoning Appeals shall satisfy all relevant factors and procedures specified in other sections of the zoning ordinance and consider the following additional factors:

- A. The showing of good and sufficient cause.
- B. The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development, or activity within any Floodway District that will cause any increase in the one hundred (100)-year flood elevation.
- C. The danger that materials may be swept on to other lands or downstream to the injury of others.

- D. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
- E. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
- F. The importance of the services provided by the proposed facility to the community.
- G. The requirements of the facility for a waterfront location.
- H. The availability of alternative locations not subject to flooding for the proposed use.
- I. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- J. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
- K. The safety of access by ordinary and emergency vehicles to the property in time of flood.
- L. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
- M. The repair or rehabilitation of historic structures upon a 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.
- N. Such other factors which are relevant to the purposes of this ordinance.

The Board of Zoning Appeals may refer any application and accompanying documentation pertaining to any request for a variance to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.

Variances shall be issued only after the Board of Zoning Appeals has determined that the granting of such will not result in (a) unacceptable or prohibited increases in flood heights, (b) additional threats to public safety, (c) extraordinary public expense; and will not (d) create nuisances, (e) cause fraud or victimization of the public, or (f) conflict with local laws or ordinances.

Variances shall be issued only after the Board of Zoning Appeals has determined that the variance will be the minimum required to provide relief.

The Board of Zoning Appeals shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one hundred (100)-year flood elevation (a) increases the risks to life and property and (b) will result in increased premium rates for flood insurance.

A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances that are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

Section 6.20 – Existing Structures in Floodplains

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions (August 1, 1989), but which is not in conformity with these provisions, may be continued subject to the following conditions:

- A. Existing structures in the Floodway Area shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed expansion would not result in any increase in the base flood elevation.
- B. Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any flood plain areas to an extent or amount of less than fifty (50) percent of its market value shall conform to the VA USBC.
- C. The modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its location in a floodplain area to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with this ordinance and shall require the entire structure to conform to the VA USBC.

**INCLUDED FOR REFERENCE
EXCERPT FROM CHAPTER 45 OF THE CODE OF CAROLINE,
ADOPTED APRIL 2016 – REPLACED ARTICLE XV SECTION 6 OF THE ZONING
ORDINANCE**

Article 2 Flood Hazard Regulations

45-10. Authority and Purpose

This article is adopted pursuant to Va. Code § 10.1-600 *et seq.* The purpose of these provisions is to prevent: the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by:

- A. regulating uses, activities, and developments which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies;
- B. restricting or prohibiting certain uses, activities, and developments from locating within districts subject to flooding;
- C. requiring those uses, activities, and developments that do occur in flood-prone districts to be protected and/or flood-proofed against flooding and flood damage; and,
- D. protecting individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

45-11. Definitions.

For the purposes of this article, the following words and terms shall have the specific meaning given below:

AGENT

The Director of Planning and Community Development of Caroline County or his/her designed.

APPROXIMATE FLOOD PLAIN DISTRICT

That floodplain area for which no detailed flood profiles or elevations are provided, but where a one percent annual chance floodplain boundary has been approximated.

BASE FLOOD

The flood having a one-percent chance of being equaled or exceeded in any given year. (Also referred to as the "one-hundred-year flood").

BASE FLOOD ELEVATION (BFE): The water surface elevation of the Base Flood in relation to the datum specified on the community's Flood Insurance Study and Flood Insurance Rate Map.

BASEMENT

Any area of the building having its floor sub-grade (below ground level) on all sides.

DEVELOPMENT

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

EXISTING STRUCTURES

Structures for which the "start of construction" commenced before September 1, 1981.

FLOOD OR FLOODING

A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters or from the unusual and rapid accumulation of runoff of surface waters from any source.

FLOODPLAIN

- A. A relatively flat or low land area adjoining a river, stream or watercourse which is subject to partial or complete inundation;
- B. An area subject to the unusual and rapid accumulation or runoff of surface water from any source.

FLOODPLAIN ADMINISTRATOR

The agent designated by the Board of Supervisors to administer this article.

FLOOD INSURANCE RATE MAP (FIRM)

An official map of Caroline County, on which the Federal Emergency Management Agency has delineated both the special hazard areas and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY (FIS)

A report by FEMA that examines, evaluates and determines flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudflow and/or flood-related erosion hazards.

FLOOD-PRONE AREA

Any land area susceptible to being inundated by water from any source.

FLOODPROOFING

Any combination of structural and non-structural 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, as provided in the Virginia Uniform Statewide Building Code.

FLOODWAY

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 at any point within the County.

HISTORIC STRUCTURE: Any structure that is:

- A. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- B. 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;
- C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1). by an approved state program as determined by the Secretary of the Interior, or

- (2). directly by the Secretary of the Interior in states without approved programs.

LOWEST FLOOR

The lowest floor of the lowest enclosed area (including basement).

MANUFACTURED HOME

A structure which is transportable in one (1) or more sections; is built on a permanent chassis, and is designed for use with or without a permanent foundation, when connected to the required utilities. The term "manufactured home" does not include "recreational vehicle," but does include mobile homes. The term also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.

MANUFACTURED HOME PARK/SUBDIVISION

A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

NEW CONSTRUCTION

Structures for which the start of construction commenced on or after September 1, 1981, and includes any subsequent improvements to such structures.

RECREATION VEHICLE: A vehicle which is:

- A. Built on a single chassis;
- B. Four hundred (400) square feet or less when measured at the largest horizontal projection;
- C. Designed to be self-propelled or permanently towable by a light duty truck; and
- D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.

RIVERINE

Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

SPECIAL FLOOD HAZARD AREA (SFHA)

The land in the floodplain subject to a one (1%) percent or greater chance of being flooded in any given year as determined in Section 45.16 of this article.

START OF CONSTRUCTION

The date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, substantial improvement or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the 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 a basement, 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 on any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects the external dimensions of the building.

STRUCTURE

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

SUBSTANTIAL DAMAGE

Damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT

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

- A. Any project for improvement of 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, or
- B. Any alteration of a "historic structure," provided that the alteration will not preclude the structures continued designation as a "historic structure."

VIOLATION

The failure of a structure or other development to be fully compliant with this article. Any development without the elevation certificate, other certifications, or other evidence of compliance required in this article is presumed to be in violation until such time as that documentation is provided.

45-12. Applicability

These provisions shall apply to all lands within the jurisdiction of the County identified as areas of special flood hazard according to the flood insurance rate map (FIRM).

45-13. Compliance and Liability

- A. No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with the terms and provisions of this ordinance and any other applicable ordinances and regulations which apply to uses within the County.
- B. The degree of flood protection sought by the provisions of this ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study, but does not imply total flood protection. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that districts outside the floodplain district or that land uses permitted within such district will be free from flooding or flood damages.
- C. Records of actions associated with administering this ordinance shall be kept on file and maintained by the Floodplain Administrator.

- D. This ordinance shall not create liability on the part of the County of Caroline or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made there under.

45-14 Floodplain Administrator

The Director of Planning and Community Development or his/her designee, is designated as the Floodplain Administrator (hereinafter "agent") and shall administer and implement the requirements of this Section and as required by federal law. Specifically, the agent shall undertake duties and responsibilities including but not limited to the following:

- A. Review permit applications submitted to the Department of Planning and Community Development to determine whether proposed activities will be located in the Special Flood Hazard Area (SFHA).
- B. Interpret floodplain boundaries and provide base flood elevation and flood hazard information maintained by the County.
- C. Review permit applications in the SFHA to determine whether proposed activities will be reasonably safe from flooding.
- D. Require new construction and substantial improvements to meet the requirements of these regulations.
- E. Confirm that all necessary permits have been obtained from the Federal, State or local agencies from which prior or concurrent approval is required; including permits from state agencies for any construction, reconstruction, repair, or alteration of a dam, reservoir, or waterway obstruction (including bridges, culverts, structures), any alteration of a watercourse, or any change of the course, current, or cross section of a stream or body of water, including any change to the 100-year frequency floodplain of free-flowing non-tidal waters of the State.
- F. Verify that any applicant proposing an alteration of a watercourse has notified adjacent communities, the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), and any other appropriate agencies (VADEQ, USACE) and have submitted copies of such notifications to FEMA.
- G. Approve applications and issue floodplain development permits to develop in flood hazard areas provided the provisions of these regulations have been met, or disapprove applications if the provisions of these regulations have not been met.
- H. Inspect or cause to be inspected, buildings, structures, and other development for which permits have been issued to determine compliance with these regulations or to determine if non-compliance has occurred or violations have been committed.
- I. Review Elevation Certificates and require incomplete or deficient certificates to be corrected.
- J. Submit to FEMA, or require applicants to submit to FEMA, data and information necessary to maintain FIRMs, including hydrologic and hydraulic engineering analyses prepared by or for the (community), within six months after such data and information becomes available if the analyses indicate changes in base flood elevations.
- K. Maintain and permanently keep records that are necessary for the administration of these regulations, including:

- (1). Flood Insurance Studies, Flood Insurance Rate Maps (including historic studies and maps and current effective studies and maps) and Letters of Map Change; and
 - (2). Documentation supporting issuance and denial of permits, Elevation Certificates, documentation of the elevation (in relation to the datum on the FIRM) to which structures have been floodproofed, inspection records, other required design certifications, articles, and records of enforcement actions taken to correct violations of these regulations.
- L. Enforce the provisions of these regulations, investigate violations, issue notices of violations or stop work orders, and require permit holders to take corrective action.
- M. Advise the Board of Supervisors regarding the intent of these regulations and, for each application for an exception, prepare a staff report and recommendation.
- N. Administer the requirements related to proposed work on existing buildings:
- (1). Make determinations as to whether buildings and structures that are located in flood hazard areas and that are damaged by any cause have been substantially damaged.
 - (2). Make reasonable efforts to notify owners of substantially damaged structures of the need to obtain a permit to repair, rehabilitate, or reconstruct. Prohibit the non-compliant repair of substantially damaged buildings except for temporary emergency protective measures necessary to secure a property or stabilize a building or structure to prevent additional damage.
- O. Undertake other actions as deemed appropriate which may include but are not limited to: issuing press releases, public service announcements, and other public information materials related to permit requests and repair of damaged structures; coordinating with other Federal, State, and local agencies to assist with substantial damage determinations; providing owners of damaged structures information related to the proper repair of damaged structures in special flood hazard areas; and assisting property owners with documentation necessary to file claims for Increased Cost of Compliance coverage under NFIP flood insurance policies.
- P. Notify the Federal Emergency Management Agency if/when the boundaries of the County have been modified and:
- (1). Provide a map that clearly delineates the new corporate boundaries or the new area for which the authority to regulate pursuant to these regulations has either been assumed or relinquished through annexation; and
 - (2). If the FIRM for any annexed area includes special flood hazard areas that have flood zones that have regulatory requirements that are not set forth in these regulations, prepare amendments to these regulations to adopt the FIRM and appropriate requirements, and submit the amendments to the governing body for adoption; such adoption shall take place at the same time as or prior to the date of annexation and a copy of the amended regulations shall be provided to Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and FEMA.
- Q. Upon the request of FEMA, complete and submit a report concerning participation in the NFIP which may request information regarding the number of buildings in the SFHA,

number of permits issued for development in the SFHA, and number of exceptions issued for development in the SFHA.

- R. Take into account flood, mudslide and flood-related erosion hazards, to the extent that they are known, in all official actions relating to land management and use throughout the entire jurisdictional area of the County whether or not those hazards have been specifically delineated geographically (e.g. via mapping or surveying).

45-15. Use and Interpretation of FIRMs

The agent shall make interpretations, where needed, as to the exact location of special flood hazard areas, floodplain boundaries, and floodway boundaries. The following shall apply to the use and interpretation of FIRMs and data:

- A. Where field surveyed topography indicates that adjacent ground elevations:
 - (1). Are below the base flood elevation, even in areas not delineated as a special flood hazard area on a FIRM, the area shall be considered as special flood hazard area and subject to the requirements of these regulations;
 - (2). Are above the base flood elevation, the area shall be regulated as special flood hazard area unless the applicant obtains a Letter of Map Change that removes the area from the SFHA.
- B. In FEMA-identified special flood hazard areas where base flood elevation and floodway data have not been identified and in areas where FEMA has not identified SFHAs, any other flood hazard data available from a Federal, State, or other source shall be reviewed and reasonably used.
- C. Base flood elevations and designated floodway boundaries on FIRMs and in FISs shall take precedence over base flood elevations and floodway boundaries by any other sources if such sources show reduced floodway widths and/or lower base flood elevations.
- D. Other sources of data shall be reasonably used if such sources show increased base flood elevations and/or larger floodway areas than are shown on FIRMs and in FISs.
- E. If a Preliminary Flood Insurance Rate Map and/or a Preliminary Flood Insurance Study has been provided by FEMA:
 - (1). Upon the issuance of a Letter of Final Determination by FEMA, the preliminary flood hazard data shall be used and shall replace the flood hazard data previously provided from FEMA for the purposes of administering these regulations.
 - (2). Prior to the issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data shall be deemed the best available data pursuant to Section 45.16(B)(3) and used where no base flood elevations and/or floodway areas are provided on the effective FIRM.
 - (3). Prior to issuance of a Letter of Final Determination by FEMA, the use of preliminary flood hazard data is permitted where the preliminary base flood elevations or floodway areas exceed the base flood elevations and/or designated floodway widths in existing flood hazard data provided by FEMA. Such preliminary data may be subject to change and/or appeal to FEMA.

45-16. Establishment and Description of Districts

A. Basis of Districts

The various special flood hazard districts (SFHA Districts) shall include the special flood hazard areas (SFHA) as delineated by the Flood Insurance Study (FIS) and the Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA) for Caroline County, Virginia and Incorporated Areas, dated March 2, 2009, as amended or revised.

The boundaries of the SFHAs are established as shown on the FIRM which is declared to be a part of this article, and which shall be kept on file in the Department of Planning and Community Development.

B. Establishment of Districts

(1) The Floodway District is in an AE Zone and is delineated, for purposes of this article, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one percent annual chance flood without increasing the water surface elevation of that flood more than one (1) foot at any point. The areas included in this District are specifically defined in Table 1 of the above-referenced FIS and shown on the accompanying FIRM.

(2) The following provisions shall apply within the Floodway District of an AE zone [44 CFR 60.3(d)]:

(a) Within any floodway area, no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase in flood levels within the community during the occurrence of the base flood discharge. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently-accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Floodplain Administrator. Development activities which increase the water surface elevation of the base flood may be allowed, provided that the applicant first applies, with the endorsement of the Board of Supervisors, for a Conditional Letter of Map Revision (CLOMR), and receives the approval of FEMA.

If Section 45.16(B)(1) of this article is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Sections 45-22 through 45-25 of this Article.

(b) The placement of manufactured homes is prohibited, except when replacing an existing manufactured home 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, elevation, and encroachment standards are met.

(3) The AE Zones on the FIRM accompanying the FIS shall be those areas for which one-percent annual chance flood elevations have been provided and the floodway has not been delineated. The following provisions shall apply within any AE zone where FEMA has provided base flood elevations:

Until a regulatory floodway is designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within the areas of special flood hazard, designated as Zone AE unless it is demonstrated 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 County.

Development activities which increase the water surface elevation of the base flood by more than one foot may be allowed, provided that the applicant first applies, with the endorsement of the Board, for a Conditional Letter of Map Revision, and receives the approval of the Federal Emergency Management Agency.

- (4) The A Zone shall be those areas for which no detailed flood profiles or elevations are provided, but the one percent annual chance floodplain boundary has been approximated. For these areas, the following provisions shall apply [44 CFR 60.3(b)]:

The Approximated Floodplain District shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one percent annual chance floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the FIS. The base flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. Where the specific one percent annual chance flood elevation cannot be determined for this area using other sources of data, such as the U. S. Army Corps of Engineers Floodplain Information Reports, U. S. Geological Survey Flood-Prone Quadrangles, then the applicant for the proposed use, development and/or activity shall determine this base flood elevation using technical methods that correctly reflect currently accepted practices, such as point on boundary, high water marks, or detailed methodologies hydrologic and hydraulic analyses. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Floodplain Administrator.

The agent may require a hydrologic and hydraulic analysis for any development. When such base flood elevation data is utilized, the lowest floor shall be elevated to or above the base flood level plus thirty-six inches.

The permit application shall include the following information:

The elevation of the lowest floor in relation to mean sea level, including the basement, of all new and substantially improved structures; and,

If the structure has been flood-proofed in accordance with the requirements of this article, the elevation in relation to mean sea level, to which the structure has been flood-proofed.

Base flood elevation data shall be obtained from other sources or developed using detailed methodologies comparable to those contained in a FIS for any proposed subdivision or development (including manufactured home parks and subdivisions) that exceeds fifty lots or five acres, whichever is less.

45-17. Jurisdictional Boundary Changes

The flood hazard regulations in effect on the date of any annexation shall remain in effect and shall be enforced by the municipality for all annexed areas until the municipality adopts and enforces an ordinance which meets the requirements for participation in the National Flood Insurance Program.

Municipalities with existing floodplain ordinances shall pass a resolution acknowledging and accepting responsibility for enforcing floodplain ordinance standards prior to annexation of any area containing identified flood hazards. If the FIRM for any annexed area includes special flood hazard areas that have flood zones that have regulatory requirements that are not set forth in these regulations, prepare amendments to these regulations to adopt the FIRM and appropriate requirements, and submit the amendments to the governing body for adoption; such adoption shall take place at the same time as or prior to the date of annexation and a copy of the amended regulations shall be provided to Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management) and FEMA.

The Federal Insurance Administration shall be notified by the County in writing of any boundary modifications by annexation, or when the County has otherwise assumed or no longer has authority to adopt and enforce floodplain management regulations for a particular area.

A copy of a map of the County suitable for reproduction, clearly delineating the new corporate limits or new area for which the County has assumed or relinquished floodplain management regulatory authority must be included with the notification.

45-18. District Boundary Changes

The delineation of any of the Floodplain Districts may be revised by the Board of Supervisors where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U. S. Army Corps of Engineers or other qualified agency, or an individual documents the need for such change. Prior to any such change, approval must be obtained from the Federal Emergency Management Agency. A final Letter of Map Revision (LOMR) from FEMA is a record of this approval.

45-19. Interpretation of District Boundaries

Initial interpretations of the boundaries of the Floodplain Districts shall be made by the agent. Should a dispute arise concerning the boundaries of any of the Districts, the applicant may appeal to the Board of Supervisors. The applicant shall be given a reasonable opportunity to present his case to the Board and to submit his own technical evidence.

45-20. Submitting Model Backed Technical Data

Base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practical but not later than six months after the date such information becomes available, the County shall notify FEMA of the changes by submitting technical or scientific data in the form of a LOMR. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data.

45-21. Letters of Map Revision

When development in the floodplain will cause or causes a change in the base flood elevation, the applicant, including state agencies, must notify FEMA by applying for a Conditional Letter of Map Revision and then a Letter of Map Revision.

45-22. Permit and Application Requirements

A. Permit Requirement

All uses, activities, and development occurring within any Floodplain District, shall be undertaken only upon the issuance of a floodplain development permit and any other

permit(s) required by Caroline County. Such development shall be undertaken only in strict compliance with the provisions of this Article, the Virginia Uniform Statewide Building Code (USBC), the Caroline County Zoning Ordinance, the Caroline County Subdivision Ordinance and all other applicable codes and ordinances, as amended. Prior to the issuance of any such permit, the agent shall require all applications to include compliance with all applicable state and federal laws, and shall review all sites to assure they are reasonably safe from flooding. Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.

B. Site Plans and Permit Applications

All applications for development within any floodplain district and all building permits issued for the floodplain shall incorporate the following information:

- (1) The elevation of the Base Flood for the site.
- (2) The elevation of the lowest floor (including basement).
- (3) For structures to be flood-proofed (non-residential only), the elevation to which the structure will be flood-proofed.
- (4) Topographic information showing existing and proposed ground elevations.

C. An administrative fee as set by the Board of Supervisors shall be paid to the Caroline County Treasurer at the time of submission of the permit application.

45-23. General Standards

In all Floodplain Districts the following provisions shall apply:

- A. New construction and substantial improvements shall be undertaken according to this article and the VA USBC and anchored to prevent flotation, collapse or lateral movement of the structure.
- B. Manufactured 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 anchoring requirements for resisting wind forces.
- C. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- D. New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage in accordance with these regulations.
- E. Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities, including ductwork, shall be designed and/or located to prevent water from entering or accumulating within the components during conditions of flooding.
- F. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- G. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood

waters.

- H. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- I. In addition to provisions A-H above, the following additional provisions shall apply in all special flood hazard areas:
 - (1) Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction a permit shall be obtained from the U. S. Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Furthermore, in riverine areas, notification of the proposal shall be given by the applicant to all affected adjacent jurisdictions, the Department of Conservation and Recreation (Division of Dam Safety and Floodplain Management), other required agencies, and the Federal Emergency Management Agency.
 - (2) The flood carrying capacity within an altered or relocated portion of any watercourse shall be maintained.

45-24. Elevation and Construction Standards ~~[44 CFR 60.3]~~

The following provisions shall apply in all identified flood hazard areas where base flood elevations have been provided in the FIS or generated by a certified professional in accordance with Section 45.16(B)(3) of this article:

A. Residential Construction

New construction or substantial improvement of any residential structure in Zones AE and A with detailed base flood elevations shall have the lowest floor, including basement, elevated at least to the base flood level plus eighteen(18) inches.

B. Non-Residential Construction

New construction or substantial improvement of any commercial, industrial, or non-residential building shall have the lowest floor, including the basement elevated to at least the base flood level plus eighteen (18) inches.

Non-residential buildings located in all AE zones may be flood-proofed in lieu of being elevated provided that all areas of the building components below the elevation corresponding to the BFE plus two feet are water tight 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, including the specific elevation in relation to mean sea level, to which such structures are floodproofed, shall be maintained by the Floodplain Administrator.

C. Space Below the Lowest Floor

In zones A and AE, fully enclosed areas of new construction or substantially improved structures, which are below the regulatory flood protection elevation shall:

- (1) not be designed or used for human habitation, but shall be used solely for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator).
- (2) be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
- (3) include measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. The openings shall be certified by a licensed professional engineer or architect or meet the following minimum design criteria:
 - (a) A minimum of two openings on different sides of each enclosed area subject to flooding must be provided.
 - (b) The total net area of all openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding.
 - (c) If a building has more than one enclosed area, each area must have openings to allow floodwaters to automatically enter and exit.
 - (d) The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade.
 - (e) Openings may be equipped with screens, louvers, or other opening coverings or devices, provided they permit the automatic flow of floodwaters in both directions.

Foundation enclosures made of flexible skirting do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.

D. Standards for Manufactured Homes and Recreational Vehicles

- (1) In zones A and AE, all manufactured homes placed, or substantially improved, on individual lots or parcels, must meet all the requirements for new construction, including the elevation and anchoring requirements in Sections 45-23 and 45-24 of this Article.
- (2) All recreational vehicles placed on sites must:
 - (a) be located on the site for fewer than 180 consecutive days, be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions); or
 - (b) meet all the requirements for manufactured homes in Section 45-24(D)(1) of this Article.

45-25. Subdivision Standards

- A. All subdivision proposals shall:
 - (1) be consistent with the need to minimize flood damage;
 - (2) have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage
 - (3) provide adequate drainage to reduce exposure to flood hazards
- B. Base flood elevation data shall be obtained from other sources or developed using detailed

methodologies, hydraulic and hydrologic analysis, comparable to those contained in a Flood Insurance Study for any proposed subdivision or development that exceed fifty lots or five acres, whichever is less.

- C. The subsurface soil absorption system for on-site waste disposal systems shall be not be located in flood plains subject to annual or more frequent sustained flooding.

45-26. Existing Structures in Floodplains

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions (September 1, 1981), but which is not in conformity with these provisions, may be continued subject to the following conditions:

- A. Existing structures in the Floodway Area shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed expansion would not result in any increase in the base flood elevation.
- B. Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any floodplain areas to an extent or amount of less than fifty (50) percent of its market value shall conform to the VA USBC and the appropriate provisions of this article.
- C. Any modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its location in a floodplain area to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with this article and the entire structure shall conform to the VA USBC and the applicable provisions of this article.

45-27. Exceptions

- A. The Board of Supervisors may grant an exception to this article only upon a showing of good and sufficient cause, and only after the Board determines that (i) failure to grant the exception would result in exceptional hardship to the applicant, and (ii) the granting of such exception will not result in (a) unacceptable or prohibited increases in flood heights, (b) additional threats to public safety, (c) extraordinary public expense; and will not (d) create nuisances, (e) cause fraud or victimization of the public, or (f) conflict with local laws or ordinances.
- B. While the granting of exceptions is generally limited to a lot size of less than one-half acre, deviations from that limitation may occur. However, as the lots size increases, the technical justification required for issuing an exception increases. Exceptions may be issued by the Board for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of this section.
- C. Exceptions may be issued for new construction, substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of this section are met, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
- D. In passing upon applications for exceptions, the Board of Supervisors consider the following additional factors:

1. The danger to life and property due to increased flood heights or velocities caused by encroachments. No article shall be granted for any proposed use, development, or activity within any Floodway District that will cause any increase in the one percent (1%) chance flood elevation.
 2. The danger that materials may be swept on to other lands or downstream to the injury of others.
 3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
 4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
 5. The importance of the services provided by the proposed facility to the community.
 6. The requirements of the facility for a waterfront location.
 7. The availability of alternative locations not subject to flooding for the proposed use.
 8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
 9. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
 10. The safety of access by ordinary and emergency vehicles to the property in time of flood.
 11. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
 12. The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the exception is the minimum necessary to preserve the historic character and design of the structure. Historic structures undergoing repair or rehabilitation that would constitute a substantial improvement must comply with all provisions of this article that do not preclude the structure's continued designation as historic. Documentation that a specific provision of this article will cause removal of the structure from the National Register of Historic Places or the State Inventory of Historic places must be obtained from the Secretary of the Interior or the State Historic Preservation Officer.
 13. Such other factors which are relevant to the purposes of this Article.
- E. The Board of Supervisors may refer any application and accompanying documentation pertaining to any request for an exception to any qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.
- F. Exceptions shall be issued only after the Board of Supervisors has determined that the granting of such will not result in (a) unacceptable or prohibited increases in flood heights, (b) additional threats to public safety, (c) extraordinary public expense; and will not (d) create nuisances, (e) cause fraud or victimization of the public, or (f) conflict with local laws or ordinances.

- G. The exception shall be the minimum required to provide relief.
- H. The applicant shall be notified in writing, that the issuance of an exception to construct a structure below the one hundred (100)-year flood elevation (a) increases the risks to life and property and (b) will result in increased premium rates for flood insurance.
- I. A record shall be maintained of the above notification as well as all actions, including justification for the issuance of the exception. Any exceptions that are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

45-28. Violations and Penalties

- A. Any person who fails to comply with any of the requirements or provisions of this article or directions of the agent or any authorized employee of the County shall be guilty of a Class 3 misdemeanor, punishable of a fine up to \$500.
- B. In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the proper enforcement of this article. The imposition of a fine or penalty for any violation of, or noncompliance with, this article shall not excuse the violation or noncompliance or permit it to continue; and all such persons shall be required to correct or remedy such violations within a reasonable time.
- C. Any structure constructed, reconstructed, enlarged, altered or relocated that is not in compliance with this article may be declared by the Board of Supervisors to be a public nuisance in accordance with Section 15.2-900 of the Code of Virginia and Chapter 77 of the Code of Caroline County and abated as such.
- D. The VA USBC addresses building code violations and the associated penalties in Section 104 and Section 115.

45-29. Validity

- A. Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this article shall be declared invalid for any reason whatever, such decision shall not affect the remaining portions of this Article. The remaining portions shall remain in full force and effect; and for this purpose, the provisions of this article are hereby declared severable.

- B. Abrogation and Greater Restrictions

To the extent that any of its provisions are more restrictive, this article supersedes any other ordinance provisions currently in effect in flood-prone districts. To the extent that any other existing law or regulation is more restrictive, such other law or regulation shall control.

These regulations are not intended to repeal or abrogate any existing ordinances including subdivision regulations, zoning ordinances or building codes. In the event of a conflict between these regulations and any other ordinance, the more restrictive shall govern.