

# Flood Damage Prevention Ordinance

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Lenoir County, NC



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**July 2, 2004**  
**Amended: March 18, 2013**

# FLOOD DAMAGE PREVENTION ORDINANCE LENOIR COUNTY, NC

## Non-Coastal Regular Phase

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# **FLOOD DAMAGE PREVENTION ORDINANCE**

## **ARTICLE 1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.**

### **SECTION A. STATUTORY AUTHORIZATION.**

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3 and 4 of Article 18 of Chapter 153A; and Article 6 of Chapter 153A of the North Carolina General Statutes, 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 Board of Commissioners of the County of Lenoir, North Carolina, does ordain as follows:

### **SECTION B. FINDINGS OF FACT.**

- (1) The flood hazard areas within the jurisdiction of the County of Lenoir are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- (2) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

### **SECTION C. STATEMENT OF PURPOSE.**

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

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

or which may increase flood hazards to other lands.

#### **SECTION D. OBJECTIVES.**

The objectives of this ordinance are:

- (1) to protect human life and health;
- (2) to minimize expenditure of public money for costly flood control projects;
- (3) to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) to minimize prolonged business losses and interruptions;
- (5) to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in floodplains;
- (6) 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;
- (7) to insure that potential homebuyers are notified that property is in a Special Flood Hazard Area; and,
- (8) to insure that those who occupy the Special Flood Hazard Areas assume responsibility for their actions.

#### **ARTICLE 2. DEFINITIONS.**

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

“Accessory Structure” means structures which are 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. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.

“Addition (to an existing building)” means an extension or increase in the floor area or height of a building or structure.

“Appeal” means a request for a review of the floodplain administrator's interpretation of any provision of this ordinance.

“Area of Special Flood Hazard” see “Special Flood Hazard Area”.

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

“Base Flood Elevation (BFE)” means a determination as published in the Flood Insurance Study of the water surface elevations of the base flood.

“Basement” means, for floodplain management purposes, any area of the building having its floor subgrade (below ground level) on all sides.

“Building” see “Structure”

“Chemical Storage Facility” means a building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

“Community Rating System (CRS)” means a program developed by the Federal Emergency Management Agency to provide incentives for those communities in the Regular Program of the National Flood Insurance Program that have gone beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding.

“Critical Facility” means any property that, if flooded, would result in severe consequences to public health and safety. Critical facilities include but are not limited to:

- (1) Those structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic, and/or water-reactive materials;
- (2) Hospitals, nursing homes, group care facilities, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood;
- (3) Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood; and
- (4) Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood.

“Development” means, for floodplain management purposes, any man-made 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.

“Development Activity” means above activity which will necessitate a Floodplain Development Permit.

“Disposal” defined as in NCGS 130A-290(a)(6) means the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

“Elevated Building” means, for floodplain management purposes, a nonbasement building which has

its reference level raised above ground level by foundation walls, shear walls, posts, piers, pilings or columns.

“Encroachment” means the advance or infringement of uses, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

“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) is completed before the effective date of this Ordinance.

“500-Year Floodplain” means the floodplain that would be inundated by the 0.2% annual chance (500-year) flood. The 500-year floodplain is delineated on Flood Hazard Boundary Maps, Flood Insurance Rate Maps, and Flood Boundary and Floodway Maps as Zone B or Zone X (shaded).

“Flood” or “flooding” 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; and,
- (2) the unusual and rapid accumulation of runoff of surface waters from any source.

“Flood Boundary and Floodway Map (FBFM)” means an official map of a community, issued by the Federal Emergency Management Agency, on which the Special Flood Hazard Areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).

“Flood Hazard Boundary Map (FHBM)” means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the Special Flood Hazard Areas have been defined as Zone A.

“Flood Insurance” means the insurance coverage provided under the National Flood Insurance Program.

“Flood Insurance Rate Map (FIRM)” means an official map of a community, on which the Federal Emergency Management Agency has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community.

“Flood Insurance Study (FIS)” is the engineering study performed by the Federal Emergency Management Agency to identify flood hazard areas, flood insurance risk zones, and other flood data in a community. The study includes Flood Boundary and Floodway Maps (FBFMs), and/or Flood Insurance Rate Map (FIRMs).

“Floodplain” or “Flood Prone Area” means any land area susceptible to being inundated by water from any source.

“Floodplain Management” means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

“Floodplain Administrator” is the individual appointed to administer and enforce the floodplain management regulations.

“Floodplain Regulations” means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

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

“Flood Prone Area” see “Floodplain”

“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.

“Flood Zone” means a geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

“Floor” see “Lowest Floor”.

“Freeboard” means a margin 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. See also...Regulatory Flood Protection Elevation.

“Functionally Dependent Facility” means a facility which cannot be used for its intended purpose unless it is located in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

“Hazardous Waste Management Facility” means a facility that manages material which have been declared by the United States Environmental Protection Agency (EPA) to be toxic, corrosive, ignitable or chemically reactive.

“Highest Adjacent Grade (HAG)” 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 US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- (2) certified or preliminarily determined by the Secretary of 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.

“Increased Cost of Compliance (ICC)” means a benefit integrated into an owner’s flood insurance coverage that will pay up to \$30,000 (as of May 2003) for expenses a property owner must incur, above and beyond the cost to repair the physical damage the structure actually sustained from a flooding event, to comply with mitigation requirements of Federal, State, or local floodplain management ordinances or laws. Acceptable mitigation measures are elevation, floodproofing, relocation, demolition, or any combination thereof.

“Junk” means old or scrapped copper, brass, rope, rags, batteries, paper, trash, rubber, debris, waste, dismantled or wrecked automobiles or parts thereof, dismantled or broken appliances or parts thereof, including white goods, iron, steel, and other old scrap ferrous or non-ferrous materials, abandoned Manufactured Housing Units or parts thereof, abandoned stick-built houses or parts thereof, or abandoned farm machinery or parts thereof.

“Levee” means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

“Lowest Adjacent Grade (LAG)” means the elevation of the ground, sidewalk, patio slab, or deck support immediately next to the building after completion of the building. For Zone A and AO, use the natural grade elevation prior to construction.

“Lowest Floor” means, for floodplain management and flood insurance purposes, the subfloor, top of slab or grade of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited 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 ordinance.

“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".

“Map Revision” means a reprinted National Flood Insurance Program map incorporating changes to floodplains, floodways, and/or flood elevations.

“Market Value” means the building value, excluding the land (as agreed to between a willing buyer and seller), as established by what the local real estate market will bear. Market value can be established by independent certified appraisal, replacement cost depreciated by age of building (Actual Cash Value) or adjusted assessed values.

“Mean Sea Level” means, for purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) of as corrected in 1929, the North American Vertical Datum (NAVD) as corrected in 1988, or other vertical control datum used as a reference for establishing varying elevations within the floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.

“New Construction” means, for floodplain management purposes, structures for which the "start of construction" commenced on or after the effective date of the original version of this ordinance and includes any subsequent improvements to such structures.

“Nonconforming Building, Use, or Development” means any legally existing building or development which fails to comply with the provisions of the ordinance.

“Non-Encroachment Area” 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 (1) foot as designated in the Flood Insurance Study report.

“Obstruction” includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

“Post-FIRM” means construction or other development which started on or after January 1, 1975 or on or after the effective date of the initial Flood Insurance Rate Map for the area, whichever is later.

“Pre-FIRM” means construction or other development which started before January 1, 1975 or before the effective date of the initial Flood Insurance Rate Map for the area, whichever is later.

“Public Safety” and/or “Nuisance” means anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

“Recreational Vehicle (RV)” means a vehicle, which is:

- (1) built on a single chassis;
- (2) 400 square feet or less when measured at the largest horizontal projection;

- (3) designed to be self-propelled or permanently towable by a light duty truck; and,
- (4) designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

“Reference Floor” means typically the lowest finished floor for a new or substantially improved structure.

“Reference Level” is the portion of a structure or other development that must be compared to the regulatory flood protection elevation to determine regulatory compliance of such building. Within Special Flood Hazard Areas designated as zones AE or A, the reference level is the top of the lowest floor.

“Regulatory Flood Protection Elevation” means the elevation to which all structures and other development located within the Special Flood Hazard Areas must be elevated or floodproofed. Floodproofing is only permitted with non-residential structures. Within areas where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard. In areas where no BFE has been established, all structures and other development must be elevated or floodproofed, if non-residential, to two (2) feet above the highest adjacent grade.

“Remedy a Violation” means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

“Repetitive Loss” means flood-related damages sustained by a structure on two (2) separate occasions during any 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds twenty-five percent (25%) of the market value of the structure before the damage occurred.

“Retrofitting” means measures, such as floodproofing, elevation, construction of small levees, and other modifications, taken on an existing building or its yard to protect it from flood damage.

“Riverine” means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

“Salvage Yard” means property used for the storage, collection, and/or recycling of any type of equipment whatsoever, whether industrial or non-commercial, and including but not limited to items defined as junk in this ordinance.

“Special Flood Hazard Area (SFHA)” is the land in the floodplain subject to a one (1%) percent or greater chance of being flooded in any given year as determined in Article 3, Section B of this ordinance.

“Solid Waste” means any hazardous or nonhazardous garbage, refuse or sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, domestic sewage and sludges generated by the treatment thereof in sanitary sewage collection, treatment and disposal

systems, and other material that is either discarded or is being accumulated, stored or treated prior to being discarded, or has served its original intended use and is generally discarded, including solid, liquid, semisolid or contained gaseous material resulting from industrial, institutional, commercial and agricultural operations, and from community activities. The term does not include:

- (1) Fecal waste from fowls and animals other than humans.
- (2) Solid or dissolved material in:
  - (a) Domestic sewage and sludges generated by treatment thereof in sanitary sewage collection, treatment and disposal systems which are designed to discharge effluents to the surface waters.
  - (b) Irrigation return flows.
  - (c) Wastewater discharges and the sludges incidental to and generated by treatment which are point sources subject to permits granted under Section 402 of the Water Pollution Control Act, as amended (P.L. 92-500), and permits granted under G.S. 143-215.1 by the Environmental Management Commission. However, any sludges that meet the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.
- (3) Oils and other liquid hydrocarbons controlled under Article 21A of Chapter 143 of the General Statutes. However, any oils or other liquid hydrocarbons that meet the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.
- (4) Any source, special nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2011).
- (5) Mining refuse covered by the North Carolina Mining Act, G.S. 74-46 through 74-68 and regulated by the North Carolina Mining Commission (as defined under G.S. 143B-290). However, any specific mining waste that meets the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.
- (6) Recovered material.

“Solid Waste Disposal Facility” means any facility involved in the disposal of solid waste

“Solid Waste Disposal Site” means any place at which solid wastes are disposed of by incineration, sanitary landfill or any other method.

“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 one hundred eighty (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 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 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, or a gas, liquid, or liquefied gas storage tank that is principally above ground.

“Substantial Damage” means damage of any origin sustained by a structure during any one year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred. See definition of “substantial improvement”. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds twenty percent (25%) of the market value of the structure before the damage occurred.

“Substantial improvement” means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one year period whereby the cost of which equals or exceeds fifty percent (50%) 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:

- (1) any project of 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,
- (2) any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure and the alteration is approved by variance issued pursuant to Article 4 Section E of this ordinance.

“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 fifty percent (50%) of the value of the streets, utilities and pads before the repair, reconstruction, or improvement commenced.

“Variance” is a grant of relief to a person from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

“Violation” means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Articles 4 and 5 is presumed to be in violation until such time as that documentation is provided.

“Watercourse” means a lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in

which substantial flood damage may occur.

“Watershed” means the entire land area contributing surface drainage to a specific point (e.g. the water supply intake).

“Water Surface Elevation (WSE)” means the height, in relation to mean sea level, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

### **ARTICLE 3. GENERAL PROVISIONS.**

#### **SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES.**

This ordinance shall apply to ALL Special Flood Hazard Areas within the jurisdiction of the County of Lenoir.

#### **SECTION B. BASIS FOR ESTABLISHING SPECIAL FLOOD HAZARD AREAS**

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) for Lenoir County, dated April 16, 2013 and its accompanying Flood Insurance Rate Map Panels listed on the Map Index, also dated April 16, 2013, including any digital data developed as part of the FIS, which are adopted by reference and declared to be a part of this ordinance. Future revisions to the FIS or FIRM panels that do not change flood hazard data within the jurisdictional authority of Lenoir County are also adopted by reference and declared to be part of this ordinance. Subsequent revisions to the FIRM should be adopted within six months.

The initial Flood Insurance Rate Map for Lenoir County, dated January 6, 1983.

#### **SECTION C. ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT.**

A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within Special Flood Hazard Areas as determined in Article 3, Section B of this Ordinance.

#### **SECTION D. COMPLIANCE.**

No structure or land shall hereafter be constructed, located, extended, converted, developed, or structurally altered without full compliance with the terms of this Ordinance and other applicable regulations.

#### **SECTION E. ABROGATION AND GREATER RESTRICTIONS.**

This Ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Ordinance and other ordinances, easements, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

**SECTION F. INTERPRETATION.**

In the interpretation and application of this Ordinance all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and,
- (3) Deemed neither to limit nor repeal any other powers granted under the State of North Carolina statutes.

**SECTION G. WARNING AND DISCLAIMER OF LIABILITY.**

The degree of flood protection required by this Ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance 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 Ordinance shall not create liability on the part of the County of Lenoir or by any officer or employee thereof, or FEMA, for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made hereunder.

**SECTION H. PENALTIES FOR VIOLATION.**

Violation of the provisions of this Ordinance 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 who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$50.00 or imprisoned for not more than 30 days, or both, for each violation, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the County of Lenoir from taking such other lawful action as is necessary to prevent or remedy any violation.

**ARTICLE 4. ADMINISTRATION.**

**SECTION A. DESIGNATION OF FLOODPLAIN ADMINISTRATOR.**

The Director of the Lenoir County Planning and Inspections Department or his/her designee hereinafter referred to as the "Floodplain Administrator", is hereby appointed to administer and implement the provisions of this ordinance.

**SECTION B. FLOODPLAIN DEVELOPMENT PERMIT AND CERTIFICATION REQUIREMENTS.**

- (1) **Plans and Application Requirements.** Application for a Floodplain Development Permit shall be made to the Floodplain Administrator on forms furnished by the floodplain administrator prior to any development activities proposed to be located within flood prone areas. The following items/information shall be presented to the Floodplain Administrator to apply for a Floodplain Development Permit:

- (a) A plot plan, prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same, drawn to scale shall include, but shall not be limited to, the following specific details of the proposed floodplain development:
  - i) the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, the location of utility systems, proposed grading/pavement areas, fill materials, storage areas, drainage facilities, and other proposed development;
  - ii) the boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in Article 3, Section B of this Ordinance or a statement that the entire lot is within the Special Flood Hazard Area;
  - iii) flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Article 3, Section B of this Ordinance;
  - iv) the boundary of the floodway(s) or non-encroachment area(s) as determined in Article 3, Section B of this Ordinance;
  - v) the Base Flood Elevation (BFE) where provided as set forth in Article 3, Section B; Article 4, Section C (11 & 12); or Article 5, Sections B(5) and C(4) of this Ordinance
  - vi) the old and new location of any watercourse that will be altered or relocated as a result of proposed development;
- (3) Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:
  - i) Elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;
  - ii) Elevation in relation to mean sea level to which any non-residential structure will be flood-proofed;
  - iii) Elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed;
- (4) If floodproofing, a floodproofing certificate and back-up plans from a registered professional engineer or architect certifying that the non-residential flood-proofed development will meet the flood-proofing criteria in Article 5, Section B(2) and Section C.
- (5) A Foundation Plan drawn to scale which shall include details of the proposed foundation system to ensure all provisions of this ordinance are met. These details include but are not limited to:
  - i) Proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/piers);

- ii) Should solid foundation perimeter walls be used in floodplains, details of sufficient openings to facilitate the unimpeded movements of floodwaters in accordance with Article 5, Section B(5);
- (6) Usage details of any enclosed space below the regulatory flood protection elevation.
  - (7) Plans and/or details for the protection of public utilities and facilities such as sewer, gas, electrical, and water systems to be located and constructed to minimize flood damage;
  - (8) Copy of all other Local, State and Federal permits required prior to Floodplain Development Permit issuance (i.e. Wetlands, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.)
  - (9) If Floodplain Development Permit is issued for placement of Recreational Vehicles and/or Temporary Structures, documentation to ensure Article 5, Section B(4 & 6) of this code are met.
  - (10) If a watercourse is proposed to be altered and/or relocated, 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; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.
- (2) **Floodplain Development Permit Data Requirements.** The following information shall be provided at a minimum on the Floodplain Development Permit to ensure compliance with this code.
- (a) A description of the development to be permitted under the Floodplain Development Permit issuance.
  - (b) The Special Flood Hazard Area determination for the proposed development per available data specified in Article 3, Section B.
  - (c) The regulatory flood protection elevation required for the reference level and all attendant utilities.
  - (d) The regulatory flood protection elevation required for the protection of all public utilities.
  - (e) All certification submittal requirements with timelines.
  - (f) State that no fill material shall encroach into the floodway or non-encroachment area of any watercourse, if applicable.
  - (g) If in an A or AE zone, specify the minimum foundation opening requirements.
  - (h) State limitations of below BFE enclosure uses (if applicable). (i.e., Parking, Building Access and Limited Storage only).

(3) **Certification Requirements.**

- (a) An Elevation Certificate (FEMA Form 81-31) or Floodproofing Certificate (FEMA Form 81-65) is required prior to beginning any construction. It shall be the duty of the permit applicant to submit to the Floodplain Administrator a certification of the elevation of the proposed reference level, or floodproofed elevation, whichever is applicable in relation to mean sea level.
- (b) An Elevation Certificate (FEMA Form 81-31) or Floodproofing Certificate (FEMA Form 81-65) is required after the reference level is completed. Within twenty-one (21) calendar days of establishment of the reference level elevation, or floodproofing, by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, or floodproofed elevation, whichever is applicable in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing is utilized, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work done within the twenty-one (21) day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the certificate 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 said corrections required shall be cause to issue a stop-work order for the project.
- (c) A Final As-Built Elevation Certificate (FEMA Form 81-31) or Floodproofing Certificate (FEMA Form 81-65) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation or floodproofed elevation of the reference level and all attendant utilities. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing is utilized, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The floodplain administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make said corrections required shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.
- (d) If a manufactured home is placed within an A or AE zone and the elevation of the chassis is above 36 inches in height, an engineered foundation certification is required per Article 5, Section B(3).
- (e) If a watercourse is to be altered or relocated, 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; and a map showing the location of the proposed watercourse

alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.

- (f) Certification Exemptions. The following structures, if located within A or AE zones, are exempt from the elevation/floodproofing certification requirements specified in items (a) and (b) above:
  - i) Recreational Vehicles meeting requirements of Article 5, Section B(4)(a);
  - ii) Temporary Structures meeting requirements of Article 5, Section B(6); and
  - iii) Accessory Structures less than 150 square feet meeting requirements of Article 5, Section B(7)(g).

(g) **Determinations for existing buildings and structures.** For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

- (i) Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
- (ii) Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
- (iii) Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
- (iv) Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the NC Building Code and this ordinance is required.

### **SECTION C. DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.**

Duties of the Floodplain Administrator shall include, but not be limited to:

- (1) Review all Floodplain Development applications and issue permits for all proposed development within flood prone areas to assure that the requirements of this Ordinance have been satisfied.

- (2) Advise permittee that additional Federal or State permits (i.e., Wetlands, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.) may be required, and if specific Federal or State permits are known, require that copies of such permits be provided and maintained on file with the Floodplain Development Permit, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- (3) Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (5) Prevent encroachments within floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of Article 5, Section D are met.
- (6) Obtain actual elevation (in relation to mean sea level) of the lowest floor of all attendant utilities of all new or substantially improved structures, in accordance with Article 4, Section B(3).
- (7) Obtain the actual elevation (in relation to mean sea level) to which the new or substantially improved structures and all utilities have been floodproofed, in accordance with Article 4, Section B(3).
- (8) Obtain the actual elevation (in relation to mean sea level) of all public utilities, in accordance with Article 4, Section B(3).
- (9) When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Article 4, Section B(3).
- (10) Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Area (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.
- (11) When Base Flood Elevation (BFE) data has not been provided in accordance with Article 3, Section B, obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with ~~or~~ floodway data and/or non-encroachment area data available from a Federal, State, or other source, including data developed pursuant to Article 5, Section C(4), in order to administer the provisions of this Ordinance.
- (12) When Base Flood Elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with Article 3, Section B, obtain, review, and reasonably utilize any floodway data, and/or non-encroachment area data available from a Federal, State, or other source in order to administer the provisions of this Ordinance
- (13) When the exact location of boundaries of the Special Flood Hazard Areas conflict with the

current, natural topography information at the site, the property owner may apply and be approved for a Letter of Map Amendment (LOMA) by FEMA. A copy of the Letter of Map Amendment issued from FEMA will be maintained by the Floodplain Administrator in the Floodplain Development Permit file.

- (14) Permanently maintain all records that pertain to the administration of this Ordinance and make these records available for public inspection
- (15) Make on-site inspections of work in progress. As the work pursuant to a Floodplain Development Permit progresses, the Floodplain Administrator 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 the local ordinance and the terms of the permit. In exercising this power, the Floodplain Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.
- (16) Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the Floodplain Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.
- (17) Revocation of Floodplain Development Permits as required. The Floodplain Administrator may revoke and require the return of the Floodplain Development Permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial 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 Floodplain Development Permit mistakenly issued in violation of an applicable State or local law may also be revoked.
- (18) Make periodic inspections throughout all special flood hazard areas within the jurisdiction of the community. The Floodplain Administrator and each member of his or her inspections department shall have a right, 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.
- (19) Follow through with corrective procedures of **Article 4, Section D.**

#### **SECTION D. CORRECTIVE PROCEDURES.**

- (1) Violations to be Corrected: When the Floodplain Administrator finds violations of applicable State and local laws, it shall be his/her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law in the property he owns.
- (2) Actions in Event of Failure to Take Corrective Action: If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator shall give ~~him~~ the owner written notice, by certified or registered mail to the owner's last known address or by

personal service, stating

- (a) that the building or property is in violation of the Flood Damage Prevention Ordinance;
  - (b) that a hearing will be held before the Floodplain Administrator at a designated place and time, not later than 10 days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and,
  - (c) that following the hearing, the Floodplain Administrator may issue such order to alter, vacate, or demolish the building; or to remove fill as appears appropriate.
- (3) Order to Take Corrective Action: If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she shall make an order in writing to the owner, requiring the owner to remedy the violation within a specific time period, not less than sixty 60 days. Where the Floodplain Administrator finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.
- (4) Appeal: Any owner who has received an order to take corrective action may appeal from the order to the Lenoir County Planning Board by giving notice of appeal in writing to the Floodplain Administrator and the clerk within ten (10) days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator shall be final. The Lenoir County Planning Board shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.
- (5) Failure to Comply with Order: If the owner of a building or property fails to comply with an order to take corrective action from which no appeal has been taken, or fails to comply with an order of the Lenoir County Planning Board following an appeal, he or she shall be guilty of a misdemeanor and shall be punished in the discretion of the court.

#### **SECTION E. VARIANCE PROCEDURES.**

- (1) The Lenoir County Planning Board as established by the County of Lenoir, hereinafter referred to as the "appeal board", shall hear and decide requests for variances from the requirements of this ordinance.
- (2) Any person aggrieved by the decision of the appeal board may appeal such decision to the Court, as provided in Chapter 7A of the North Carolina General Statutes.
- (3) 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.

- (4) In passing upon variances, the appeal board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:
  - (a) the danger that materials may be swept onto other lands to the injury of others;
  - (b) the danger to life and property due to flooding or erosion damage;
  - (c) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - (d) the importance of the services provided by the proposed facility to the community;
  - (e) the necessity to the facility of a waterfront location, where applicable;
  - (f) the availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
  - (g) the compatibility of the proposed use with existing and anticipated development;
  - (h) the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
  - (i) the safety of access to the property in times of flood for ordinary and emergency vehicles;
  - (j) the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
  - (k) the costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.
- (5) A written report addressing each of the above factors shall be submitted with the application for a variance.
- (6) Upon consideration of the factors listed above and the purposes of this ordinance, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
- (7) Variances shall not be issued within any designated floodway or non-encroachment area if any increase in flood levels during the base flood discharge would result.
- (8) A variance may be issued for solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of the following conditions are met. A Floodplain Development Permit may be issued for such development only if a variance is granted.
  - (a) The use serves a critical need in the community.

- (b) No feasible location exists for the use outside the Special Flood Hazard Area.
  - (c) The reference level of any structure is elevated or floodproofed to at least the regulatory flood protection level.
  - (d) The use complies with all other applicable laws and regulations.
  - (e) The County of Lenoir has notified the Secretary of the North Carolina Department of Crime Control and Public Safety of its intentions to grant a variance at least thirty (30) days prior to granting the variance.
- (9) Conditions for Variances:
- (a) Variances may not be issued when the variance will make the structure in violation of other Federal, State, or local laws, regulations, or ordinances.
  - (b) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  - (c) Variances shall only be issued upon:
    - (i) a showing of good and sufficient cause;
    - (ii) a determination that failure to grant the variance would result in exceptional hardship; and,
    - (iii) 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.
  - (d) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (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.
  - (e) The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.

**ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTION.**

**SECTION A. GENERAL STANDARDS.**

In all Special Flood Hazard Areas the following provisions are required:

- (1) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (2) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (3) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages.
- (4) Electrical, heating, ventilation, plumbing, air conditioning equipment, 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 flooding. These include but are not limited to HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric meter panels/boxes, utility/cable boxes, appliances (i.e., washers, dryers, refrigerator, etc.), hot water heaters, electric outlets/switches.
- (5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- (6) 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.
- (7) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
- (8) Any alteration, repair, reconstruction, or improvements to a structure which is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance.
- (9) Non-Conforming Buildings or Uses. Non-conforming buildings, developments, or uses may not be enlarged, replaced, or rebuilt unless such enlargement or reconstruction is accomplished in conformance with the provisions of this ordinance. Provided, however, nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this ordinance and located totally or partially within the floodway, non-encroachment area, or stream setback, provided that the bulk of the building or structure below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback is not increased and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.
- (10) Construction of new solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted in Special Flood Hazard Areas. A structure or tank for chemical or fuel storage incidental to an allowed use or operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and certified according to Article 4, Section B(3) of this Ordinance.

## **SECTION B. SPECIFIC STANDARDS.**

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth in Article 3, Section B, or Article 4, Section C(3), the following provisions are required:

- (1) Residential Construction. New construction or substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided.
- (2) Non-Residential Construction. New construction or substantial improvement of any commercial, industrial, or non-residential structure (including manufactured homes for such purposes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation. Structures located in A or AE Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure below the required flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Article 4, Section B(3).
- (3) Manufactured Homes.
  - (a) New or replacement manufactured homes:

shall be elevated on a permanent foundation such that the reference level of the manufactured home is elevated no lower than the regulatory flood protection elevation.
  - (b) Manufactured homes shall be securely anchored to an adequately anchored foundation to prevent flotation, collapse, or lateral movement in accordance with the State of North Carolina Regulations for Manufactured/Mobile Homes, 1995 Edition, and any revision thereto adopted by the Commissioner of Insurance pursuant to NCGS §143-143.15 or a certified engineered foundation. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (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 thirty-six (36) inches in height an engineering certification is required.
  - (c) 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 Floodplain Administrator and the local Emergency Management coordinator.
  - (d) All foundation enclosures or skirting shall be in accordance with Article 5, Section B(5).
- (4) Recreational Vehicles. Recreation vehicles placed on sites within a Special Flood Hazard Area shall either:

- (a) be on site for fewer than one hundred eighty (180) consecutive days and 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 has no permanently attached additions); or
  - (b) meet all the requirements for new construction, including anchoring and elevation requirements of Article 4, Section B and Article 5, Sections A and B(3).
- (5) Elevated Buildings. New construction or substantial improvements of elevated buildings that include fully enclosed areas that are below the regulatory flood protection elevation shall not be designed to be used for human habitation, but shall be designed to be usable solely for the parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises, be constructed entirely of flood resistant materials below the regulatory flood protection level in an A and AE zones and meet the following design criteria:
- (a) Measures for complying with this requirement shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. To meet this requirement, the foundation must either be certified by a professional engineer or architect or meet the following minimum criteria:
    - (i) Provide a minimum of two (2) openings on different sides of each enclosed area subject to flooding having a total net area of not less than one (1) square inch for every square foot of each enclosed area subject to flooding;
    - (ii) If the building has more than one (1) enclosed area, each area must have openings on exterior walls to allow floodwater to directly enter;
    - (iii) The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade; and,
    - (iv) Openings may be equipped with screens, louvers, ~~valves~~, or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
    - (v) Foundation enclosures:
      - 1) Vinyl or sheet metal skirting is not considered an enclosure for regulatory and flood insurance rating purposes. Therefore such skirting does not require hydrostatic openings as outlined above.
      - 2) Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires hydrostatic openings as outlined above to comply with this ordinance.
  - (b) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).
  - (c) The interior portion of such enclosed area shall not be partitioned or finished into separate

rooms, except to enclose storage areas.

- (6) Temporary Structures. Prior to the issuance of a floodplain development permit for a temporary structure the following requirements must be met:
- (a) All applicants must submit to the Floodplain Administrator prior to the issuance of the Floodplain Development Permit a plan for the removal of such structure(s) in the event of a hurricane or flash flood warning notification. The plan must include the following information:
    - (i) a specified time period for which the temporary use will be permitted;
    - (ii) the name, address and phone number of the individual responsible for the removal of the temporary structure;
    - (iii) the time frame prior to the event at which a structure will be removed (i.e. minimum of seventy-two (72) hours before landfall of a hurricane or immediately upon flood warning notification);
    - (iv) a copy of the contract or other suitable instrument with a trucking company to insure the availability of removal equipment when needed; and
    - (v) designation, accompanied by documentation, of a location outside the Special Flood Hazard Area to which the temporary structure will be moved.
  - (b) The above information shall be submitted in writing to the Floodplain Administrator for review and written approval.
- (7) Accessory Structure. When accessory structures (sheds, detached garages, etc.) are to be placed within the Special Flood Hazard Area, the following criteria shall be met:
- (a) Accessory structures shall not be used for human habitation (including work, sleeping, living, cooking or restroom areas);
  - (b) Accessory structures shall be designed to have low flood damage potential;
  - (c) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
  - (d) Accessory structures shall be firmly anchored in accordance with Article 5, Section A(1);
  - (e) Service facilities such as electrical and heating equipment shall be installed in accordance with Article 5 Section A(4);
  - (f) Openings to relieve hydrostatic pressure during a flood shall be provided below the regulatory flood protection elevation in conformance with Article 5 Section B(5); and
  - (g) An accessory structure with a footprint less than 150 square feet does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are

required for all other accessory structures in accordance with Article 4, Section B(3).

An accessory structure with a footprint less than 150 square feet or that is a minimal investment of \$10,000 or less and satisfies the criteria outlined above is not required to meet the elevation or floodproofing standards of Article 5, Section B (2). Elevation or floodproofing certifications are required for all other accessory structures in accordance with Article 4, Section B(3).

(8) Additions/Improvements.

(a) Additions and/or improvements to pre-FIRM structures whereby the addition and/or improvements in combination with any interior modifications to the existing structure

i) are not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

ii) are a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

(b) Additions to post-FIRM structures that are a substantial improvement with no modifications to the existing structure shall require only the addition to comply with the standards for new construction.

(c) Additions and/or improvements to post-FIRM structures whereas the addition and/or improvements in combination with any interior modifications to the existing structure

i) are not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.

ii) are a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

(d) Where a fire wall or independent perimeter load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and only the addition must comply with the standards for new construction.

(9) Tanks. When gas and liquid storage tanks are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

- (a) Underground tanks. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;
  - (b) Above-ground tanks, elevated. Above-ground tanks in flood hazard areas shall be attached to and elevated to or above the design flood elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area;
  - (c) Above-ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of Section B (2) of this ordinance shall be permitted in flood hazard areas provided the tanks are anchored or otherwise designed and constructed to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty and the effects of flood-borne debris.
  - (d) Tank inlets and vents. Tank inlets, fill openings, outlets and vents shall be:
    - (i) At or above the design flood elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and
    - (ii) Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.
- (10) Other Development.
- (a) Fences in a regulated floodway or non-encroachment area that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall require a floodway encroachment analysis and meet the limitations of Article 5, Section F of this ordinance.
  - (b) Retaining walls, sidewalks, or driveways in a regulated floodway or non-encroachment area. Retaining walls, sidewalks, or driveways that involve the placement of fill in a regulated floodway or non-encroachment area shall require a floodway encroachment analysis and meet the limitations of Article 5, Section F of this ordinance.
  - (c) Roads or watercourse crossings in a regulated floodway or non-encroachment area. Roads or watercourse crossings, including roads, bridges, culverts, low-water crossings or similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into a regulated floodway or non-encroachment area shall require a floodway encroachment analysis and meet the limitations of Article 5, Section F of this ordinance.

**SECTION C. STANDARDS FOR SUBDIVISION PROPOSALS, MANUFACTURED**

## **HOUSING PARK PROPOALS, AND MAJOR DEVELOPMENTS.**

- (1) Proposals for subdivisions, manufactured housing parks, and major developments shall be consistent with the need to minimize flood damage;
- (2) Proposals for subdivisions, manufactured housing parks, and major developments shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
- (3) Proposals for subdivisions, manufactured housing parks, and major developments shall have adequate drainage provided to reduce exposure to flood hazards; and,
- (4) Proposals for subdivisions, manufactured housing parks, and major developments shall have Base Flood Elevation (BFE) data provided if is greater than the lesser of five (5) acres or fifty (50) lots/ manufactured housing sites. Such Base Flood Elevation (BFE) data shall be adopted by reference per Article 3, Section B to be utilized in implementing this Ordinance.

## **SECION D. FLOODWAYS AND NON-ENCROACHMENT AREAS.**

Located within the Special Flood Hazard Areas established in Article 3, Section B are areas designated as floodways or non-encroachment areas. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions shall apply to all development within such areas:

- (1) No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted 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 floodplain administrator prior to issuance of floodplain development permit.
- (2) If Article 5, Section F(1) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.
- (3) Manufactured homes may be permitted provided the following provisions are met:
  - (a) the anchoring and the elevation standards of Article 5, Section B(3); and
  - (b) the no encroachment standards of Article 5, Section F(1) are met.
- (4) No recreation vehicles shall be permitted

## **SECTION E. CRITICAL FACILITIES**

New construction or substantial improvement of any critical facility is prohibited in all areas of special flood hazard and in all 500-year floodplains, unless all of the following provisions are met:

- (1) No feasible alternative site exists for construction of an equivalent facility within the jurisdiction boundaries of the County of Lenoir;
- (2) The facility has the lowest floor, including basement, of all structures elevated no lower than one (1) foot above the 500-year 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. Structures may be floodproofed to the flood protection level 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 having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Article 4, Section B(3). If the 500-year floodplain is not identified on the FIRM and the facility is located within one thousand (1,000) feet of the boundary of an area of special flood hazard where no base flood data is provided, certification with supporting technical data by a registered professional engineer shall be provided that the facility is elevated or floodproofed no lower than one (1) foot above the 500-year flood elevation, unless it is certified that the facility located outside the 500-year floodplain; and
- (3) The facility has at least one access road connected to land outside the 500-year floodplain that is capable of supporting a 4,000-pound vehicle. The top of the access road must be no lower than one-half (0.5) foot above the elevation of the 500-year flood.

## **ARTICLE 6. LEGAL STATUS PROVISIONS**

### **SECTION A. EFFECT ON RIGHTS AND LIABILITIES UNDER THE EXISTING FLOOD DAMAGE PREVENTION ORDINANCE.**

This Ordinance in part comes forward by re-enactment of some of the provisions of the flood damage prevention ordinance enacted July 7, 1980 as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this ordinance shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of the County of Lenoir enacted on July 7, 1980, as amended, which are not reenacted herein are repealed.

### **SECTION B. EFFECT UPON OUTSTANDING BUILDING PERMITS.**

Nothing herein contained shall require any change in the plans, construction, size or designated use of any building, structure, or development or any part thereof for which a Floodplain Development Permit has been granted by the Floodplain Administrator or his/her authorized agents before the time of passage of this ordinance; provided, however, that when construction is not begun under such outstanding permit within a period of sixty (60) days subsequent to passage of this ordinance, construction or use shall be in conformity with the provisions of this ordinance.

### **SECTION C. EFFECTIVE DATE**

This ordinance shall become effective April 16<sup>th</sup>, 2013.

**SECTION D. ADOPTION CERTIFICATION**

I hereby certify that this is a true and correct copy of the flood damage prevention ordinance as adopted by the Board of Commissioners of the County of Lenoir, North Carolina, on the 21<sup>st</sup> day of June, 2004, and as amended on the 18<sup>th</sup> day of March, 2013.

WITNESS my hand and the official seal of the County of Lenoir, this the 18th day of March, 2013.