

**A RESOLUTION ADOPTING A STATEMENT  
EXPLAINING THE BOARD OF ALDERMEN'S REASONS FOR ADOPTING AN  
AMENDMENT TO THE TEXT OF THE CARRBORO LAND USE ORDINANCE  
Resolution No. 79/2006-07**

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: An Ordinance Amending the Carrboro Land Use Ordinance provisions dealing with flood damage prevention

NOW THEREFORE, the Board of Aldermen of the Town of Carrboro resolves:

Section 1. The Board concludes that the above described amendment is necessary in order to remain in compliance with State statutes.

Section 2. The Board concludes that its adoption of the above described amendment is reasonable and in the public interest because it makes local regulations and procedures consistent with federal and state regulations and recommended practices.

Section 3. This resolution becomes effective upon adoption.

**A RESOLUTION ADOPTING A STATEMENT  
EXPLAINING THE BOARD OF ALDERMEN'S REASONS FOR REJECTING AN  
AMENDMENT TO THE TEXT OF THE CARRBORO LAND USE ORDINANCE  
Resolution No. 80/2006-07**

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: An Ordinance Amending the Carrboro Land Use Ordinance to comply with recent changes to the North Carolina General Statutes.

NOW THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board concludes that the above described amendment is not necessary for compliance with State regulations.

Section 2. The Board concludes that rejection of the above described amendment is reasonable and in the public interest because existing regulations sufficient.

Section 3. This resolution becomes effective upon adoption.

**AN ORDINANCE REVISING PART I OF ARTICLE XVI OF THE  
CARRBORO LAND USE ORDINANCE DEALING WITH  
FLOOD DAMAGE PREVENTION.**

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

Section 1. All references in this ordinance are to Chapter 15 of the Carrboro Town Code, the Carrboro Land Use Ordinance.

Section 2. The Title of Article XVI and Part I of Article XVI of the Carrboro Land Use Ordinance are rewritten to read as follows:

**ARTICLE XVI**

**FLOOD DAMAGE PREVENTION, STORMWATER MANAGEMENT,  
AND WATERSHED PROTECTION**

**PART I. FLOOD DAMAGE PREVENTION**

**Section 15-251 Purpose and Objective.**

(a) It is the purpose of this part to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

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

(b) The objectives of this part 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 (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;
- (6) To ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

### **Section 15-251.1 Definitions.**

Unless otherwise specifically provided, or unless clearly required by the context, the words and phrases defined in this section shall have the meaning indicated when used in this article.

1. Accessory Structure (Appurtenant Structure). A structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. 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.
2. Addition (to an existing building). An extension or increase in the floor area or height of a building or structure.
3. Appeal. A request for a review of the administrator's interpretation of any provision of this ordinance.
4. Area of Special Flood Hazard. See "Special Flood Hazard Area (SFHA)"
5. Basement. Any area of the building having its floor subgrade (below ground level) on all sides.
6. Base Flood. The flood having a one (1) percent chance of being equaled or exceeded in any given year.
7. Base Flood Elevation (BFE). A determination of the water surface elevations of the base flood as published in the Flood Insurance Study or, for areas not covered in the Flood Insurance Study, as may be obtained from engineering studies available from a Federal or State or other source using FEMA approved engineering methodologies. This elevation,

when combined with the “Freeboard,” establishes the “Regulatory Flood Protection Elevation.”

8. Chemical Storage Facility. A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.
9. Development. 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.
10. Development Permit. A zoning, special use, conditional use, or sign permit required under the provisions of Article IV of this chapter.
11. Disposal. As defined in NCGS 130A-290(a)(6), 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.
12. Elevated Building. A non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.
13. Encroachment. 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.
14. Existing Manufactured Home Park or Manufactured Home Subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before the original effective date of the floodplain management regulations adopted by the town.
15. Flood or Flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from:
  - (a) the overflow of inland waters; and/or
  - (b) the unusual and rapid accumulation of runoff of surface waters from any source.
16. Flood Insurance. The insurance coverage provided under the National Flood Insurance Program.
17. Flood Insurance Rate Map (FIRM). An official map provided to the town by the Federal Emergency Management Agency, on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

18. Flood Insurance Study (FIS). An examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data provided to the town by the Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.
19. Flood Prone Area. See Floodplain.
20. Floodplain. Any land area susceptible to being inundated by water from any source.
21. Floodplain Management. 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.
22. Floodproofing. Any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.
23. 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 (1) foot.
24. Freeboard. The height added to the Base Flood Elevation (BFE) to account 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 on the watershed. The Base Flood Elevation plus the freeboard establishes the "Regulatory Flood Protection Elevation". The freeboard shall be two feet.
25. Functionally Dependent Facility. 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, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.
26. Hazardous Waste Facility. As defined in NCGS 130A290(a) (9), a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.
27. Highest Adjacent Grade (HAG). The highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.
28. Historic Structure. Any structure that is:

- (a) 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; or
  - (b) 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; or
  - (c) certified as contributing to the historical significance of any historic district that may be designated by the town.
29. Lowest Adjacent Grade (LAG). The elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.
30. Lowest Floor. Lowest floor 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.
31. Manufactured Home. 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."
32. Manufactured Home Park or Subdivision. A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
33. Market Value. The building value, not including the land value and that of any accessory structures or other improvements on the lot. Market value may be established by independent certified appraisal; replacement cost depreciated for age of building and quality of construction (Actual Cash Value); or adjusted tax assessed values.
34. Mean Sea Level. For purposes of this part, the North American Vertical Datum (NAVD) as corrected in 1988 shall be used to determine elevation.
35. New Construction. Structures for which the "start of construction" commenced on or after April 22, 1975 and includes any subsequent improvements to such structures.
36. Non-Encroachment Area. 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.

37. Post-FIRM. Means construction or other development for which the “start of construction” occurred on or after April 22, 1975.
38. Pre-FIRM. Construction or other development for which the “start of construction” occurred before April 22, 1975.
39. Principally Above Ground. At least 51% of the actual cash value of the structure is above ground.
40. Public Safety Hazard and/or Nuisance. 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, river, bay, stream, canal, or basin.
41. Recreational Vehicle (RV). A vehicle, which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizontal projection; (iii) designed to be self-propelled or permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.
42. Reference Level. The top of the lowest floor for structures within the Special Flood Hazard Area designated as Zone AE.
43. Regulatory Flood Protection Elevation. The “Base Flood Elevation” plus the “Freeboard.” In “Special Flood Hazard Areas” where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard.
44. Riverine. Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.
45. Salvage Yard. Any non-residential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances and related machinery.
46. Solid Waste. Solid waste as defined in NCGS 130A-290(a) (35).
47. Solid Waste Management Facility. As defined in NCGS 130A-290(a) (35), any facility involved in the disposal of solid waste.
48. Solid Waste Disposal Site. As defined in NCGS 130A-290(a) (36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.
49. 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 15-251.2(b) of this part.



50. Start of Construction. This term includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 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 of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.
51. Structure. A walled and roofed building, a manufactured home, or a gas, liquid, or liquefied gas storage tank that is principally above ground.
52. Substantial Damage. 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 50 percent of the market value of the structure before the damage occurred. See definition of "substantial improvement."
53. Substantial Improvement. Any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-year period for which the cost equals or exceeds 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: (i) any correction of existing violations of State or community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions; or (ii) any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.
54. Variance. A grant of relief from the requirements of this ordinance as authorized in Section 15-92 of this chapter. See also Section 15-251.5.
55. Violation. The failure of a structure or other development to be fully compliant with the provisions of this part. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this part is presumed to be in violation until such time as that documentation is provided.
56. Water Surface Elevation (WSE). The height, in relation to mean sea level, of floods of various magnitudes and frequencies in the floodplains of riverine areas.

57. Watercourse. A lake, river, creek, stream, wash, channel, or other topographic feature on or over which waters flow at least periodically.

**Section 15-251.2 General Provisions.**

(a) This part shall apply to all Special Flood Hazard Areas within the town's planning jurisdiction and joint planning transition area (as those latter terms are defined in Section 15-15).

(b) The provisions of this part shall apply to the following two types of Special Flood Hazard Areas:

(1) Those Special Flood Hazard Areas that are identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) and its accompanying Flood Insurance Rate Maps (FIRM), for Orange County, dated February 2, 2007, which are adopted by reference and declared to be a part of this ordinance.

(2) Those Special Flood Hazard Areas that are designated by the town by ordinance following appropriate engineering studies. Such SFHAs may be delineated by showing them on a map, by a written description, or any combination thereof. Such description shall be filed with the Orange County Clerk of Superior Court and Register of Deeds.

(c) As set forth in Part I of Article IV of this chapter, no development may take place within Special Flood Hazard Areas unless an appropriate permit has been issued authorizing such development, and no such permit shall be issued unless the proposed development is in full compliance with the provisions of this chapter.

(d) The provisions of this part are not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where the provisions of this part and the provisions or another ordinance conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(e) In the interpretation and application of this part, all provisions shall be considered as minimum requirements, liberally construed in favor of the town, and deemed neither to limit nor repeal any other powers granted under State statutes.

(f) The degree of flood protection required by this part is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual 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 town or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

(g) A violation of the provisions of this part shall subject the violator to the penalties and remedies set forth in Article VII of this chapter.

**Section 15-251.3 Application Requirements**

As provided in Section 15-46, no development may occur without a development permit, and no such permit shall be issued unless the administrator determines, based upon the plans and information submitted, that the development will comply with all the provisions of this chapter, including those applicable to development within Special Flood Hazard Areas. Appendix A to this chapter sets forth requirements related to the information that must generally be submitted with a permit application in order to demonstrate compliance with the requirements of this chapter. However, when the lot or tract with respect to which a development permit is sought contains a SFHA, the following information shall also be submitted to the administrator:

(1) A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:

- a. The nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;
- b. The boundary of the Special Flood Hazard or a statement that the entire lot is within the Special Flood Hazard Area;
- c. Flood zone(s) designation of the proposed development area as determined on the Flood Insurance Rate Map;
- d. The boundary of the floodway(s) or non-encroachment area(s);
- e. Base Flood Elevation (BFE) information;
- f. The old and new location of any watercourse that will be altered or relocated as a result of proposed development and any changes in Special Flood Hazard Areas that occur as a consequence of such changes.

(2) Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:

- a. Elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;
- b. Elevation in relation to mean sea level to which any non-residential structure in Zone AE will be flood-proofed; and

- c. Elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed;
- (3) If floodproofing, a Floodproofing Certificate (*FEMA Form 81-65*) with supporting data and an operational plan that includes, but is not limited to, installation, exercise, and maintenance of floodproofing measures.
- (4) 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:
- a. The proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls);
  - b. Openings to facilitate equalization of hydrostatic flood forces on walls in accordance with Subsection 15-251.9(e) (3) when solid foundation perimeter walls are used in Zone AE;
  - c. Usage details of any enclosed areas below the regulatory flood protection elevation.
  - d. 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;
  - e. Copies of all other Local, State and Federal permits required prior to development permit issuance (Wetlands, Endangered Species, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.)
  - f. A description of proposed watercourse alteration or relocation, when applicable, including 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 the plot plan) showing the location of the proposed watercourse alteration or relocation and any changes in Special Flood Hazard Areas that occur as a consequence of such changes.

#### **Section 15-251.4 Permit Requirements.**

To the extent that a development permit is issued for a lot or tract that includes a SFHA, such permit (including the plans incorporated into the permit) shall contain at least the following information:

- (1) A description of the development to be permitted under the floodplain development permit.

- (2) The location of the Special Flood Hazard Area.
- (3) The regulatory flood protection elevation required for the reference level and all attendant utilities.
- (4) The regulatory flood protection elevation required for the protection of all public utilities.
- (5) All certification submittal requirements with timelines.
- (6) A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, as applicable.
- (7) The flood openings requirements, if in Zone AE.

#### **Section 15-251.5 Certification Requirements**

(a) Elevation certificates or information shall be required for the construction of structures on properties where Special Flood Hazard Areas are located, as set forth in this section.

- (1) An application for a development permit authorizing the construction of a structure on a lot containing a SFHA shall include information designating the elevation of the reference level in relation to mean sea level and demonstrating that the reference level will be elevated to a level that is consistent with the requirements of Section 15-251.9.
- (2) Upon completion of the foundation survey, the permit holder shall calculate the elevation of the reference level, in relation to mean sea level, based upon the foundation survey and the approved flooring system and shall certify to the administrator that the reference level will be elevated to a level that is consistent with the requirements of Section 15-251.9.
- (3) A final as-built Elevation Certificate is required after construction is completed and prior to issuance of a Certificate of Compliance/Occupancy. For construction within a FEMA established Special Flood Hazard Area, FEMA Form 81-31 shall be used. For other construction covered by this subsection (a), the administrator may designate an alternative form. It shall be the duty of the permit holder to submit to the administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The 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 required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

(b) **Floodproofing Certificate.** If non-residential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 81-65), with supporting data and an operational plan, is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the building inspector a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to mean sea level. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The building inspector shall review the certificate data and plan. Failure to submit the certification or failure to make any required corrections shall be cause to deny a building permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

(c) **Foundation Certificate.** If a manufactured home is placed within Zone AE, and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per Section 15-253.9(d).

(d) **Certificate Exemption.** Accessory structures of less than 150 square feet in size, if located within Zone AE, are exempt from the elevation/floodproofing certification requirements specified in subsections (a) and (b) of this section.

#### **Section 15-251.6 Duties and Responsibilities of the Administrator**

As set forth in Part I of Article IV of this chapter, development permits (including permits for development within Special Flood Hazard Areas), shall not be issued unless the requirements of this chapter have been satisfied. In addition to his or her permit responsibilities, the administrator's responsibilities relating to the administration and enforcement of the provisions of this part shall include but shall not be limited to the following duties:

(1) Advise permit recipients that additional Federal or State permits (Wetlands, Endangered Species, Erosion and Sedimentation Control, Riparian Buffers, Mining, etc.) may be required, and require that copies of such permits be provided and maintained on file with the development permit.

(2) 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 (FEMA).

(3) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(4) Prevent encroachments into floodways and non-encroachment areas except as authorized under Section 15-251.10.

(5) Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) and all attendant utilities of all new or substantially improved structures, in accordance with Subsection 15-251.5(a)(3).

(6) Obtain actual elevation (in relation to mean sea level) to which all new and substantially improved structures and utilities have been floodproofed, in accordance with Subsection 15-251.5(b).

(7) Obtain actual elevation (in relation to mean sea level) of all public utilities in accordance with Subsection 15-251.5(a) (3).

(8) When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Section 15-251.5 and Subsection 15-251.9(b).

(9) Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation in accordance with the following principles:

- a. In areas between official cross-sections on the Flood Insurance Rate Maps, SFHA, floodway, and non-encroachment area boundaries shall be determined by scaling distances on these maps.
- b. The base flood elevation shall in all cases be the controlling factor in locating the outer limits of a SFHA boundary.
- c. Interpretations of floodway and non-encroachment area boundaries shall be based on the current procedures for interpreting such boundaries in accordance with FEMA guidelines.
- d. Appeals of the determinations of the administrator under this subsection may be taken to the board of adjustment in accordance with the provisions of Section 15-91 of this chapter.

(10) When the lowest ground elevation of a parcel or structure in a Special Flood Hazard Area is above the Base Flood Elevation, advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from FEMA. Maintain a copy of the Letter of Map Amendment (LOMA) issued by FEMA in the floodplain development permit file.

(11) Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection.

(12) Make on-site inspections of work in progress. As the work pursuant to a development permit progresses, the 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 this chapter and the terms of the permit.

(13) Issue stop-work orders as pursuant to Section 15-117 of this chapter.

(14) Revoke or recommend the revocation of development permits for violations of the provisions of this part as set forth in Section 15-115.

(15) Otherwise enforce the provisions of this part as provided in Article VII of this chapter.

(16) Review, provide input, and make recommendations for variance requests.

(17) Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and other official flood maps and studies adopted in accordance with Subsection 15-251.2(b) of this ordinance, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.

(18) Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-F) and Letters of Map Revision (LOMR).

#### **Section 15-251.7 Variance Procedures**

Variations from the restrictions of this part may be granted by the board of adjustment in accordance with the provisions of Section 15-92 of this chapter.

#### **Section 15-251.8 General Standards for Flood Hazard Reductions**

In all Special Flood Hazard Areas, if and to the extent any development is allowed, the following requirements shall be applicable:

(1) All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and 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 and 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/gas meter panels/boxes, utility/cable boxes, appliances (washers, dryers, refrigerators, freezers, etc.), hot water heaters, and electric outlets/switches.

(5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

(6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into 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) Nothing in this article shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this article and located totally or partially within the floodway or non-encroachment area, provided there is no additional encroachment below the regulatory flood protection elevation in the floodway or non-encroachment area, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this article.

(10) New solid waste management facilities and sites, hazardous waste facilities, salvage yards, and chemical storage facilities shall not be permitted. A structure or tank for chemical or fuel storage incidental to an allowed use or to the 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 Subsection 15-251.5(b) of this part.

(11) All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.

(12) All subdivision proposals and other development proposals shall have utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

(13) All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.

(14) All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by Federal

or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

**Section 15-251.9 Specific Standards for Flood Hazard Reductions**

(a) New structures generally prohibited within SFHAs. Within a Special Flood Hazard Area, no new structure (as defined in this part) may be constructed or located, and no substantial improvement of an existing structure may take place, unless and to the extent that the permit issuing authority for the proposed use determines that, in the absence of an authorization to do so, the owner would be deprived of all reasonable use of the subject property. Notwithstanding the foregoing, manufactured homes that are nonconforming because they are located within a SFHA may be replaced with another manufactured home. If such construction (or replacement of manufactured homes) is authorized, all such construction (or replacement) shall be in conformity with the remaining provisions of this section in addition to those set forth in Section 15-251.8.

(b) Residential construction. New construction and substantial improvement of any residential structure (including manufactured homes) located within a Special Flood Hazard Area or on any lot where a SFHA is located shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation.

(c) Non-residential construction. New construction and substantial improvement of any commercial, industrial, or other non-residential structure located within a SFHA shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation. Structures located in the AE Zone may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory 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 administrator along with the operational and maintenance plans.

(d) Manufactured homes. Manufactured homes that are located within a SFHA or on a lot where a SFHA is located shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by engineer certification, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of Insurance pursuant to NCGS 143-143.15. 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 engineered foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required. Finally, all enclosures or skirting below the lowest floor shall meet the requirements of subsection (e).

(e) Elevated buildings. Fully enclosed areas of new construction and substantially improved structures that are below the lowest floor of buildings located with a SFHA:

- (1) Shall 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 finished or partitioned into separate rooms, except to enclose storage areas;
  - (2) Shall be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
  - (3) Shall include flood openings 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 or exceed the following minimum design criteria;
    - a. A minimum of two flood openings on different sides of each enclosed area subject to flooding;
    - b. The total net area of all flood 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 enclosed area must have flood openings to allow floodwaters to automatically enter and exit;
    - d. The bottom of all required flood openings shall be no higher than one (1) foot above the adjacent grade;
    - e. Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and
    - f. Enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.
- (f) Additions/Improvements. With respect to additions and improvements to structures that are nonconforming because they are located within a Special Flood Hazard Area:
- (1) When the addition or improvement constitutes a substantial improvement as defined in Section 15-251.1, both the existing structure and the addition or improvement must comply with the standards for new construction.

- (2) When the addition or improvement does not constitute a substantial improvement, the addition or improvement must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

(g) Accessory Structures. When accessory structures (sheds, detached garages, etc.) are allowed to be placed within a Special Flood Hazard Area pursuant to the provisions of subsection (a) of this section, the following criteria shall be met:

- (1) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
- (2) Accessory structures shall not be temperature-controlled;
- (3) Accessory structures shall be designed to have low flood damage potential;
- (4) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
- (5) Accessory structures shall be firmly anchored in accordance with Section 15-251.8;
- (6) All service facilities such as electrical shall be installed in accordance with Section 15-251.8; and
- (7) Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with Subsection (e) of this section.
- (8) An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures.

(h) Subsequent to the effective date of this subsection, no portion of any Special Flood Hazard Area outside of the floodway may be filled in with fill dirt or similar material for the purpose of elevating buildings. Whenever fill is placed within a SFHA for any other permitted purpose, slopes shall be adequately stabilized to withstand the erosive force of the base flood.

#### **Section 15-251.10 Floodways and Non-Encroachment Areas**

(a) Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in Subsection 15-251.2(b)(1). 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 requirements set forth in the remaining provisions of this section, in addition to the standards set forth in Sections 15-251.8 and 15-251.9 shall apply to all development within such areas.

(b) No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless it has been demonstrated that:

- (1) The proposed encroachment would not result in any impact to the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the administrator prior to issuance of any development permit, or
- (2) A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.

(c) Any development within a floodway or non-encroachment area that is authorized by this section shall comply with all applicable flood hazard reduction provisions of this part.

(d) No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:

- (1) The anchoring and the elevation standards of Subsection 15-251.9(d); and
- (2) The no encroachment standard of Subsection 15-251.10(b) (1).

#### **Section 15-251.11 Special Provisions for Subdivisions**

(a) An applicant for a conditional use permit or special use permit authorizing a major subdivision and an applicant for minor subdivision final plat approval shall be informed by the planning department of the use and construction restrictions contained in this Article if any portion of the land to be subdivided lies within a Special Flood Hazard Area.

(b) A conditional use permit or special use permit for a major subdivision may not be issued, and final plat approval for any subdivision may not be granted, if any portion of one or more lots lies within a Special Flood Hazard Area unless it reasonably appears that:

- (1) With respect to each lot that lies wholly or partly within a Special Flood Hazard area, either (i) a building of the type that is consistent with the zoning of the property can practicably be located in accordance with applicable regulations on the portion of such lot that is located outside the SFHA, or (ii) such lot has already been developed, or (iii) such lot is formed as the result of an adjustment of lot lines between lots in existence on the effective date of this section, and such readjustment does not result

in a previously developable lot being rendered undevelopable, or (iv) it plainly appears that such lot is intended to be devoted to a permissible use that does not involve the construction of any building (e.g. that such lot is reserved or dedicated for open space purposes).

- (2) Creation of each lot that does not satisfy the criteria set forth in subdivision (1) of this subsection is necessary to avoid depriving the owner of the property of all reasonable use of the tract taken as a whole.

(c) Final plat approval for any subdivision containing land that lies within a Special Flood Hazard Area may not be given unless the plat shows the boundary of the SFHA according to the best information available at the time the final plat is approved. and contains in clearly discernible print the following statement: *“Use of land within a special flood hazard area is substantially restricted by Article XVI of Chapter 15 of the Carrboro Town Code.”* If, at the time final plat approval is granted, a Conditional Letter of Map Revision (CLOMR) affecting such subdivision has been approved, or the town is otherwise aware that some action is pending that would likely alter the location of the boundary of the SFHA as it affects such subdivision, then the statement on such plat referenced immediately above shall include a note similar to the following: *“The location of the boundary of the special flood hazard area may be altered by a request for a special flood hazard map revision now pending before the Federal Emergency Management Agency.”*

Section 3. Section 15-269 (Buffers in Northern Transition Area) is amended by deleting from subsection (d) (1) the phrase “as shown on the Northern Transition Area Stream Buffer Map on file in the Carrboro Planning Department, which map is incorporated herein by reference” and by deleting from subsections (d)(2), and (d)(3) the phrase “as shown on the Northern Transition Area Stream Buffer Map.”

Section 4. The following provisions of Appendix A are repealed:

A-5(5), A-6(5), A-6(6), A-6(7), A-7(3), and A-7(4).

Section 5. All provisions of any town ordinance in conflict with this ordinance are repealed.

Section 6 This ordinance shall become effective February 2, 2007.

**ARTICLE XVI****FLOODWAYS, FLOODPLAINS, DRAINAGE, AND EROSION****PART I. FLOODWAYS AND FLOODPLAINS****Section 15-251 Definitions.**

Unless otherwise specifically provided, or unless clearly required by the context, the words and phrases defined in this section shall have the meaning indicated when used in this article.

- (1) **BASE FLOOD.** The flood having a one percent chance of being equaled or exceeded in any given year. Also known as the 100-year flood.
- (2) **CRITICAL AREA.** The critical area of the University Lake Watershed is defined as all area of the watershed within the planning jurisdiction of the Town of Carrboro. (AMENDED 07/06/93)
- (3) **FLOODPLAIN.** Any land area susceptible to being inundated by water from the base flood. As used in this chapter, the term refers to the total area designated as subject to flooding from the base flood (one hundred year flood) on the "Flood Boundary and Floodway Map" prepared by the U.S. Department of Housing and Urban Development and dated February 9, 1980, a copy of which is on file in the planning department. (AMENDED 11/26/85, 12/06/88)
- (4) **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. As used in this chapter, the term refers to that area designated as a floodway on the "Flood Boundary and Floodway Map" prepared by the U.S. Department of Housing and Urban Development and dated February 9, 1980, a copy of which is on file in the planning department. (AMENDED 11/26/85; 12/06/88)
- (5) **FLOOR.** The top surface of an enclosed area in a building (including basement), i.e., top of slab in concrete slab construction or top of wood flooring in frame construction. The term does not include the floor of a garage used solely for parking vehicles. (AMENDED 4/21/87)
- (6) **HIGHEST ADJACENT GRADE.** The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure. (AMENDED 4/21/87)
- (7) **LOWEST FLOOR.** The lowest floor of the lowest enclosed area (including basement). An unfurnished or flood resistant enclosure, usable solely for parking vehicles, building access or storage, in an area other than a basement area, is not considered a

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building's lowest floor provided that such enclosure is not built so as to render the structure in violation of the applicable non- elevation design requirements of this ordinance. (AMENDED 4/21/87)

- (8) **PUBLIC WATER SUPPLY SYSTEM.** Any water supply system furnishing potable water to ten or more dwelling units or businesses or any combination thereof. (See G.S. 130-31) (AMENDED 4/21/87)

**Section 15-252 Artificial Obstructions Within Floodways Prohibited.**

(a) No artificial obstruction may be located within any floodway, except as provided in Section 15-253.

(b) For purposes of this section, an artificial obstruction is any obstruction, other than natural obstruction, that is capable of reducing the flood carrying capacity of a stream or may accumulate debris and thereby reduce the flood carrying capacity of the stream. A natural obstruction includes any rock, tree, gravel, or analogous natural matter that is an obstruction and has been located within the floodway by a nonhuman cause.

**Section 15-253 Permissible Uses Within Floodways.**

(a) Notwithstanding Article X of this chapter (Table of Permissible Uses), no permit to make use of land within a floodway may be issued unless the proposed use is listed as permissible both in the Table of Permissible Uses and in the following list: (AMENDED 6/22/82)

- (1) General farming, pasture, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife and related uses.
- (2) Ground level loading areas, parking areas, rotary aircraft ports, and other similar ground level area uses.
- (3) Lawns, gardens, play areas, and other similar uses.
- (4) Golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, parks, hiking or horseback-riding trails, open space and other similar private and public recreational uses.
- (5) The crossing of a floodway by a road or bicycle or pedestrian path. (AMENDED 04/04/00)

(b) The uses listed in subsection (a) are permissible only if and to the extent that they do not cause any increase in base flood levels. (AMENDED 6/22/82)

(c) Notwithstanding the other provisions of the section, the uses listed in subsection (a) shall be permissible if and to the extent that any obstructions within the floodway necessary to



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accommodate such uses are consistent with the regulations and standards of the Federal Emergency Management Agency. (AMENDED 04/04/00)

**Section 15-254 Construction Within Floodways and Floodplains Restricted.**  
**(AMENDED 4/21/87; 12/06/88)**

(a) No building may be constructed or located, and no substantial improvement of an existing building may take place within any floodway. With respect to mobile home communities that are nonconforming because they are located within a floodway, mobile homes may be relocated in such communities only if they comply with the provisions of subsection (i) of this section.

(b) No new building may be constructed or located wholly or partially within any floodplain outside the floodway unless and to the extent that, in the absence of such authorization the property owner would be deprived of all reasonable use. If new construction within a floodplain is authorized under this subsection, all such construction shall be in conformity with the remaining provisions of this section. With respect to mobile home communities that are nonconforming because they are located within a floodplain, mobile homes may be relocated in such communities only if they comply with the provisions of subsection (i) of this section.

(c) No zoning, special use or conditional use permit may be issued for any development within a floodplain until the permit-issuing authority has reviewed the plans for any such development to assure that:

- (1) the proposed development is consistent with the need to minimize flood damage; and
- (2) all public utilities and facilities such as sewer, gas, electrical, and water systems are located and constructed with materials and equipment resistant to flood damage, in order to minimize or eliminate the potential for flood damage; and
- (3) adequate drainage is provided to minimize or reduce exposure to flood hazards; and
- (4) all necessary permits have been received from those agencies from which approval is required by federal or state law; and
- (5) any new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic or hydrostatic loads including the effects of buoyancy; and
- (6) any new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage; and

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(7) any new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(d) No new residential building authorized under the provisions of subsection (b) of this section may be constructed, and no substantial improvement of a residential building may take place, within any floodplain unless the lowest floor (including basement) of the building or improvement is elevated or floodproofed to at least one foot above the base flood level. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided.

(e) No new nonresidential building authorized under the provisions of subsection (b) of this section may be constructed, and no substantial improvements to a nonresidential building may take place within any floodplain unless the lowest floor (including basement) of the building or improvement is elevated or floodproofed to at least one foot above the base flood level. Structures located in A-zones as designated on the "Flood Boundary and Floodway Map" may be floodproofed in lieu of elevation provided that all areas of the structure below the required elevation are water tight with walls substantially impermeable to the passage of water, using structural components having the capacity to resist hydrostatic and hydrodynamic loads and the effects of buoyancy. A registered professional engineer or architect shall certify that standards of this section are satisfied prior to the issuance of a building permit, and again prior to the issuance of a certificate of occupancy for the structure.

(f) When base flood elevation data are not available from a federal, state, or other source, the lowest floor including basement, referred to in subsection (d) or (e) above, shall be elevated at least two (2) feet above the highest adjacent grade.

(g) No new construction and no substantial improvements of a structure may take place within any floodplain unless fully enclosed areas below the lowest floor that are subject to flooding are designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or be certified by the building inspector as meeting or exceeding the following minimum requirements:

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

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(h) For purposes of this section, "substantial improvement" means any repair, reconstruction, or improvement of a building the cost of which equals or exceeds fifty percent of the market value of the structure either (i) before the improvement or repair is started or (ii) if the structure has been damaged and is being restored, before the damage occurred. "Substantial improvement" occurs when the first alteration on any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include either (i) any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications that are solely necessary to insure safe living conditions, or (ii) any alteration of a building listed on the National Register of Historic Places or a State Inventory of Historic Places. To the extent that the provisions of this subsection are inconsistent with the provisions of Section 15-125, the provisions of this subsection, if applicable, shall be controlling.

(i) Notwithstanding any other provision of this chapter, no mobile home may be located or relocated within a floodway or within that portion of the floodplain outside of the floodway, unless the following criteria are met:

- (1) Mobile homes are 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.
- (2) The lots or pads are existing, and have previously been elevated on compacted fill or by any other method approved by the Town Building Inspector, and consistent with the provision of subsection (j) of this section, so that the lowest floor of the mobile home is one foot above the base flood level.
- (3) Adequate surface drainage and easy access for mobile home haulers is provided.
- (4) Load-bearing foundation supports such as piers or pilings must be placed on stable soil or concrete footings no more than ten (10) feet apart, and if the support height is greater than seventy-two (72) inches, the support must contain steel reinforcement.

(j) Subsequent to December 06, 1988, no portion of any floodplain areas outside of the floodway may be filled in with fill dirt or similar material for the purpose of elevating buildings or mobile homes, or for any other purpose, unless it can be demonstrated that such fill will not increase the base flood elevation an amount greater than one foot. Any development permitted under subsection (b) of this section or under Section 15-253 shall be designed to minimize the need for filling. Whenever such filling is authorized, or wherever any portion of a floodplain has previously been filled in with fill dirt, slopes shall be adequately stabilized to withstand the erosive force of the base flood.

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(k) Nothing in this section shall prevent a single family residence (including a mobile home) from being located within the protective stream buffer areas required by Section 15-268 if such home (i) replaces a home that had been located within such buffer within six months prior to the effective date of this section and is located on the same location as the previous home, or (ii) is located on a mobile home pad or foundation that was in existence on the effective date of this section.

**Section 15-255 Special Provisions for Subdivisions (AMENDED 12/06/88)**

(a) An applicant for a conditional use permit or special use permit authorizing a major subdivision and an applicant for minor subdivision final plat approval shall be informed by the planning department of the use and construction restrictions contained in this Article, if any portion of the land to be subdivided lies within a floodway or floodplain.

(b) A conditional use permit or special use permit for a major subdivision may not be issued and final plat approval for any subdivision may not be granted if any portion of one or more lots lies within a floodway or floodplain unless it reasonably appears that:

- (1) With respect to each lot that lies wholly or partly within a floodway or floodplain, either (i) a building of the type that is consistent with the zoning of the property can practically be located in accordance with applicable regulations on the portion of such lot that is located outside the floodway or floodplain, or (ii) such lot has already been developed, (iii) such lot is formed as the result of an adjustment of lot lines between lots in existence of the effective date of this section, and such readjustment does not result in a previously developable lot being rendered undevelopable, or (iv) it plainly appears that such lot is intended to be devoted to a permissible use that does not involve the construction of any building, including without limitation permanent open space; or
- (2) Creation of each lot that does not satisfy the criteria set forth in subdivision (1) of this subsection is necessary to avoid depriving the owner of the property of all reasonable use of the tract taken as a whole.

(c) Final plat approval for any subdivision containing land that lies within a floodway or floodplain may not be given unless the plat shows the boundary of the floodway or floodplain and contains in clearly discernible print the following statement: *"Use of land within a floodway or floodplain is substantially restricted by Article XVI of Chapter 15 of the Carrboro Town Code."*

**Section 15-256 Water Supply and Sanitary Sewer System in Floodways and Floodplains.**

Whenever any portion of a proposed development is located within a floodway or floodplain, the agency or agencies responsible for certifying to the town the adequacy of the water supply and sewage disposal systems for the development (as set forth in Sections 15-239 and 15-241 of this chapter) shall be informed by the developer that a specified area within the development lies within

**Art. XVI. FLOODWAYS, FLOODPLAINS, DRAINAGE, AND EROSION**

a floodway or floodplain. Thereafter, approval of the proposed system by that agency shall constitute a certification that:

- (1) Such water supply system is designed to minimize or eliminate infiltration of flood waters into it.
- (2) Such sanitary sewer system is designed to eliminate infiltration of flood waters into it and discharges from it into flood waters.
- (3) Any on-site sewage disposal system is located to avoid impairment to it or contamination from it during flooding.

**Section 15-257 Additional Duties of Administrator Related to Flood Insurance and Flood Control (AMENDED 4/21/87)**

The administrator shall:

- (1) Where base flood elevation data is available :
  - a. Verify the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures;
  - b. Verify, for all structures that have been floodproofed (whether or not such structures contain a basement), the actual elevation (in relation to mean sea level) to which the structure was floodproofed; and
  - c. Maintain a record of all such information.
- (2) Where base flood elevation data has not been provided:
  - a. Obtain, review, and reasonably utilize any base flood elevation data available from a federal, state, or other source for enforcing the requirements set forth in Part I of this article; and
  - b. Verify and record the actual elevation constituting the highest adjacent grade, to which all new or substantially improved structures are elevated or floodproofed.
- (3) Notify, in riverine situations, adjacent communities and the N.C. Department of Crime Control and Public Safety prior to any alteration or relocation of a watercourse, and submit copies of such notification to the Federal Insurance Administrator.
- (4) Ensure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

**Section 15-258 through 15-260 Reserved for Future Codification.**



## TOWN OF CARRBORO

# PLANNING BOARD

*301 West Main Street, Carrboro, North Carolina 27510*

## R E C O M M E N D A T I O N

NOVEMBER 16, 2006

### Land Use Ordinance Text Amendment to modify flood damage provisions

Motion was made by David Clinton and seconded by Mary Rabinowitz that the Planning Board accepts the staff recommended text amendment.

VOTE: AYES: (9) Matthew Barton, James Carnahan, Seth Chadbourne, David Clinton, Lydia Lavelle, Heidi Paulsen, Susan Poulton, Mary Rabinowitz and Ande West; ABSENT/EXCUSED: (0) ; NOES (0); ABSTENTIONS: (1) Debra Fritz.

#### Associated Findings

By a unanimous show of hands, the Planning Board membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this ordinance.

Furthermore, the Board concludes that the above described amendment is necessary, reasonable and in the public interest as it ensures that the town will remain in compliance with federal and state regulations and recommended practices.

Motion in support of this finding was made by Heidi Paulsen and seconded by Lydia Lavelle.

VOTE: AYES: (9) Matthew Barton, James Carnahan, Seth Chadbourne, David Clinton, Lydia Lavelle, Heidi Paulsen, Susan Poulton, Mary Rabinowitz and Ande West; ABSENT/EXCUSED: (0) ; NOES (0); ABSTENTIONS: (1) Debra Fritz.

*James Carnahan/sep*  
James Carnahan, Chair

November 16, 2006  
(date)

**Town of Carrboro  
Environmental Advisory Board**



**RECOMMENDATION**  
November 16, 2006



*Request from the Environmental Advisory Board that the Board of Aldermen approves the staff-recommended text amendment to the Carrboro Land Use Ordinance revising the provisions related to flood damage prevention*

Please note that no participating advisory board members have any direct, substantial financial interest in the approval of these amendments.

VOTE: AYES (5) (Buckner, Taylor, Cors, Elting, Flanagan); NOES (0); ABSENT (Goers, Bernstein)

Carolyn Buckner, Vice Chair  
November 16, 2006  
For Lauren Goers, Chair