

**STATE OF GEORGIA
COUNTY OF CHEROKEE**

ORDINANCE NO. 2005 – O - _____

Now, therefore, be it ordained by the Cherokee County Board of Commissioners and it is hereby enacted pursuant to the authority of the same that Chapter 30 of the Cherokee County Code of Ordinances is deleted and in lieu thereof, the following is hereby adopted:

FLOOD DAMAGE PREVENTION AND FLOODPLAIN MANAGEMENT

SECTION 1. AUTHORIZATION

Article IX, Section II of the Constitution of the State of Georgia and Section 36-1-20(a) of the Official Code of Georgia Annotated have 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 Cherokee County Board of Commissioners, does ordain as follows:

SECTION 2. FINDINGS OF FACT

(1) The flood hazard areas of Cherokee County, Georgia are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood relief and protection, 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 occupancy in flood hazard areas of uses vulnerable to floods, which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages, and by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities.

Therefore, the Cherokee County Board of Commissioners establishes this set of floodplain management and flood hazard reduction policies for the purpose of regulating the use of flood hazard areas. It is determined that the regulation of flood hazard areas and the prevention of flood damages is in the public interest and will minimize threats to public health and safety.

Section 3. General Provisions

3.1. Purpose and Intent

The purpose of this ordinance is to protect, maintain and enhance the public health, safety, environment and general welfare and to minimize public and private losses due to flood conditions in flood hazard areas, as well as to protect the beneficial uses of floodplain areas for water quality protection, streambank and stream corridor protection, wetlands preservation and ecological and environmental protection by provisions designed to:

- (1) Require that uses vulnerable to floods, including facilities, which serve such uses, be protected against flood damage at the time of initial construction;
- (2) Restrict or prohibit uses, which are dangerous to health, safety and property due to flooding or erosion hazards, or which increase flood heights, velocities, or erosion;
- (3) Control filling, grading, dredging and other development, which may increase flood damage or erosion;
- (4) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands;
- (5) Limit the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; and,
- (6) Protect the stormwater management, water quality, streambank protection, stream corridor protection, wetland preservation and ecological functions of natural floodplain areas.

3.2. Applicability

This ordinance shall be applicable to all Areas of Special Flood Hazard within Cherokee County, i.e. floodplain and flood prone areas as defined herein at or below the base flood elevation or the future-conditions flood elevation, whichever is more restrictive (including A, AO, AH, AE, A1-30, or A-99 on the FIRM), and all new or substantial improvement residential units, all subdivisions, non-residential structures, manufactured homes, recreational vehicles, and utilities located within these areas. In addition, all streams with a drainage area of 100 acres or more have an area of special flood hazard.

3.3. Designation of Ordinance Administrator

The Cherokee County Engineer or the Cherokee County Engineering Department is hereby appointed to administer and implement the provisions of this ordinance.

3.4. Basis for Area of Special Flood Hazard – Flood Area Maps and Studies

For the purposes of this ordinance, the following are adopted by reference:

- (1) The Flood Insurance Study (FIS), dated July 15, 1988, with accompanying maps and other supporting data and any revision thereto. For those land areas acquired by a municipality through annexation, the current effective FIS, dated July 15, 1988, with accompanying maps and other supporting data and any revision thereto for Cherokee County are hereby adopted by reference.
- (2) Other studies which may be relied upon for the establishment of the base flood elevation and/or delineation of the special flood hazard area include:
 - (a) Any flood or flood-related study conducted by the United States Army Corps of Engineers or the United States Geological Survey or any other State or Federal agency applicable to Cherokee County; or
 - (b) Any base flood study authored by a registered professional engineer in the State of Georgia, which has been prepared by FEMA approved methodology and approved by the Cherokee County Engineering Department.
- (3) Other studies which may be relied upon for the establishment of the future-conditions flood elevation or delineation of the future-conditions floodplain include:
 - (a) Any flood or flood-related study conducted by the United States Army Corps of Engineers or the United States Geological Survey or any other State or Federal Agency applicable to Cherokee County; or
 - (b) Any future-conditions flood study authored by a registered professional engineer in the State of Georgia, which has been prepared by FEMA approved methodology and approved by the Cherokee County Engineering Department.

3.5. Compatibility with Other Regulations

This ordinance is not intended to modify, repeal or impair any other ordinance, rule, regulation, statute, easement, covenant, deed restriction or other provision of law. The requirements of this ordinance are in addition to the requirements of any other ordinance, rule, regulation or other provision of law, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provision is more restrictive or impose higher protective standards for human health or the environment shall control.

3.6. Severability

If the provisions of any section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph, subdivision or clause of this ordinance.

3.7. 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 considerations. Larger floods can and will occur; flood heights may be increased by manmade or natural causes. This ordinance does not imply that land outside the Areas of Special Flood Hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Cherokee County or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made there under.

Section 4. Definitions

"Addition (to an existing building)" means any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a firewall. Any walled and roofed addition, which is connected by a fire-wall or is separated by an independent perimeter load-bearing wall shall be considered New Construction.

"Appeal" means a request for a review of the Cherokee County Engineering Department's interpretation of any provision of this ordinance.

"Area of Shallow Flooding" means a designated AO or AH Zone on a community's Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet, and/or where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

"Area of Special Flood Hazard" is the land in the floodplain subject to a one percent or greater chance of flooding in any given year. In the absence of official designation by the Federal Emergency Management Agency, Areas of Special Flood Hazard shall be those designated by the local community and referenced in Section 3.4.

"Base Flood" means the flood having a one percent chance of being equaled or exceeded in any given year [also know as the "100-year flood"].

"Base Flood Elevation" means the highest water surface elevation anticipated at any given point during the base flood.

"Basement" means that portion of a building having its floor sub-grade (below ground level) on all sides.

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

"Development" means 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.

"Elevated Building" means a non-basement building built to have the lowest floor of the lowest enclosed area elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns, piers, or shear walls adequately anchored so as not to impair the structural integrity of the building during a base flood event.

"Existing Construction" Any structure for which the "start of construction" commenced before July 15, 1988 [i.e., the effective date of the FIRST floodplain management code or ordinance adopted by the community as a basis for that community's participation in the National Flood Insurance Program (NFIP)].

"Existing Manufactured Home Park or Subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and final site grading or the pouring of concrete pads) is completed before July 15, 1988 [i.e., the effective date of the FIRST floodplain management regulations adopted by a community].

"Expansion to an Existing Manufactured Home Park or Subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

"FEMA" means the Federal Emergency Management Agency.

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

- (a) the overflow of inland or tidal waters; or
- (b) the unusual and rapid accumulation or runoff of surface waters from any source.

"Flood Hazard Boundary Map" or "FHBM" means an official map of a community, issued by the Federal Insurance Administration, where the boundaries of areas of special flood hazard have been defined as Zone A.

"Flood Insurance Rate Map" or "FIRM" means an official map of a community, issued by the Federal Insurance Administration, delineating the areas of special flood hazard and/or risk premium zones applicable to the community.

"Flood Insurance Study" or "FIS" means the official report by the Federal Insurance Administration evaluating flood hazards and containing flood profiles and water surface elevations of the base flood.

"Floodplain" means any land area susceptible to being inundated by water from any source.

"Flood proofing" means any combination or structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

"Floodway" or "Regulatory 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.

"Functionally Dependent Use" means a use, which cannot perform its intended purpose unless it is located or carried out in close proximity to water.

"Future Conditions Flood" or "Area of Future-conditions Flood Hazard" means the land area that would be inundated by the 1-percent-annual chance (100-year) flood based on future-conditions hydrology.

"Future-conditions Flood Elevation" means the flood standard equal to or higher than the Base Flood Elevation. The Future-conditions Flood Elevation is defined as the highest water surface anticipated at any given point during the Future-conditions flood.

"Future-conditions Floodplain" includes the Regulatory Floodplain and Regulatory Floodway, as depicted in the FEMA Flood Insurance Study and Flood Insurance Rate Maps, and the area designated as the Future-conditions Flood as developed by future conditions modeling based on a fully developed drainage basin or watershed.

"Future-conditions hydrology" means the flood discharges associated with projected land-use conditions based on a community's zoning map and/or comprehensive land-use plans and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill, and excavation.

"Highest Adjacent Grade" means the highest natural elevation of the ground surface, prior to construction, adjacent to the proposed foundation of a building.

"Historic Structure" means any structure that is;

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a state inventory of historic places and determined as eligible by states with historic preservation programs which have been approved by the Secretary of the Interior; or

(d) Individually listed on a local inventory of historic places and determined as eligible by communities with historic preservation programs that have been certified either:

1. By an approved state program as determined by the Secretary of the Interior, or
2. Directly by the Secretary of the Interior in states without approved programs.

"Land Development" means any land change, including, but not limited to, clearing, digging, grubbing, stripping, removal of vegetation, dredging, grading, excavating, transporting and filling of land, construction, paving, and any other installation of impervious cover.

"Land Development Activities" means those actions or activities, which comprise, facilitate or result in land development.

"Land Development Project" means a discrete land development undertaking.

"Lowest Floor" means the lowest floor of the lowest enclosed area, including basement. An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage, in an area other than a basement, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of other provisions of this ordinance.

"Manufactured Home" means a building, transportable in one or more sections, built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term includes any structure commonly referred to as a "mobile home" regardless of the date of manufacture. The term also includes parked trailers, travel trailers and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property.

"Mean Sea Level" means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this ordinance the term is synonymous with National Geodetic Vertical Datum (NGVD) and/or the North American Vertical Datum (NAVD) of 1988.

"National Geodetic Vertical Datum (NGVD) " as corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.

"New Construction" means any structure (see definition) for which the "start of construction" commenced after July 15, 1988 and includes any subsequent improvements to the structure. [i.e., the effective date of the FIRST floodplain management ordinance adopted by the community as a basis for community participation in the (NFIP)].

"New Manufactured Home Park or Subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after July 15, 1988 [i.e., the effective date of the first floodplain management regulations adopted by a community].

"North American Vertical Datum (NAVD) of 1988" is a vertical control used as a reference for establishing varying elevations within the floodplain.

"Owner" means the legal or beneficial owner of a site, including but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.

"Permit" means the permit issued by the **(local permitting authority)** to the applicant which is required for undertaking any land development activity.

"Recreational Vehicle" means a vehicle, which is:

- (a) built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) designed to be self-propelled or permanently towable by light duty truck; and,
- (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Site" means the parcel of land being developed, or the portion thereof on which the land development project is located.

"Start of Construction" means the date the permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of the structure such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation, and includes the placement of a manufactured home on a foundation.

Permanent construction does not include initial 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 buildings appurtenant to the permitted structure, such as garages or sheds not occupied as dwelling units or part of the main structure. (NOTE: accessory structures are not exempt from any ordinance requirements). For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

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

"Substantial Damage" means damage of any origin sustained by a structure 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.

"Substantial Improvement" means any combination of repairs, reconstruction, alteration, or improvements to a building, taking place during a 5-year period, in which the cumulative cost equals or exceeds 50 percent of the market value of the structure prior to the improvement. The market value of the building means (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. This term includes structures, which have incurred "substantial damage" regardless of the actual amount of repair work performed. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of 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 those improvements of a building required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, which have been pre-identified by the Cherokee County Building Official or the Cherokee County Building Department, and not solely triggered by an improvement or repair project.

"Substantially Improved Existing Manufactured Home Park or Subdivision" is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

"Variance" is a grant of relief from the requirements of this ordinance, which permits construction in a manner otherwise prohibited by this ordinance.

"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 certificates, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

Section 5. Permit Procedures and Requirements

5.1. Permit Application Requirements

No owner or developer shall perform any land disturbing activities on a site where a regulatory floodplain is located, or is proposed to be altered or disturbed in any way, without first meeting the requirements of this ordinance prior to commencing the proposed development activity.

Unless specifically excluded by this ordinance, any owner or developer desiring a permit for a development activity shall submit to the Cherokee County Engineering Department a permit application on a form provided by the Cherokee County Engineering Department for that purpose.

No permit will be approved for any development activities that do not comply with the requirements, restrictions and criteria of this ordinance.

5.2. Floodplain Management Plan Requirements

No application for a development project within any area of special flood hazard established in Section 3.4 will be approved unless it includes a Floodplain Management / Flood Damage Prevention Plan. This Plan shall be in accordance with the criteria established in this section.

This Plan must be submitted with the stamp and signature of a Professional Engineer (PE) licensed in the state of Georgia, who will verify that all designs are consistent with the requirements of this ordinance.

The approved Floodplain Management / Flood Damage Prevention Plan shall contain certification by the applicant that all development activities will be done according to the plan or previously approved revisions. Any and all development permits and/or use and occupancy certificates or permits may be revoked at any time if the construction and development activities are not in strict accordance with approved Plans.

The Floodplain Management / Flood Damage Prevention Plan shall include, but not be limited to, the following: certified design plans drawn to scale of the site in question and the nature, location, and dimensions of existing or proposed structures, amount and location of earthen fill placement, amount and location of excavation material, storage of materials or equipment, and drainage and stormwater management facilities.

Specifically, the following information is required:

- (1) Site plan, including but not limited to:

- (a) For all proposed structures, spot ground elevations at building corners and 20-foot or smaller intervals along the foundation footprint, or one-foot contour elevations throughout the building site;
 - (b) Proposed locations of water supply, sanitary sewer, and utilities;
 - (c) If available, the base flood elevation and future-conditions flood elevation; and,
 - (d) If applicable, the location of the floodway.
- (2) Building and foundation design detail, including but not limited to:
- (a) Proposed elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all structures;
 - (b) For enclosures below the base flood elevation, location and total net area of foundation openings as required in Section 7.1(5) of this ordinance.
 - (c) A complete set of certified design plans for the proposed structure or development.
 - (d) Grading Plans
- 3) Proposed elevation in relation to mean sea level to which any substantial improvements to an existing non-residential structure will be flood-proofed, as required in Section 7 of this ordinance;
- 4) Description of the extent to which any watercourse will be altered or relocated as a result of the proposed land development project; and,
- 5) Hard copies and digital files of computer models, if any, copies of work maps, comparison of pre-and post development conditions base flood elevations, flood protection elevations, regulatory floodplain and floodway widths, flood profiles and all other computations and other information similar to that presented in the FIS.
- 6) Hard copies and digital files (as stated in 5) for any future-condition floodplain.
- 7) Copies of all applicable State and Federal permits necessary for proposed development.
- 8) All appropriate certifications and/or approvals required under this ordinance.

5.3. Construction Stage Submittal Requirements

For all new construction and substantial improvements on sites with a Floodplain Management / Flood Damage Prevention Plan, the permit holder shall provide to the Cherokee County Engineering Department a certified as-built Elevation Certificate showing of the lowest floor elevation or flood-proofing level immediately after the lowest floor or flood-proofing is completed.

Any lowest floor certification made relative to mean sea level shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by the same. When flood proofing is utilized for non-residential structures, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by the same.

Any work undertaken prior to approval of these certifications shall be at the permit holder's risk. The Cherokee County Engineering Department shall review the above referenced certification data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being allowed to proceed. Failure to submit certification or failure to make the corrections required hereby shall be cause to issue a stop work order for the project.

5.4. Duties and Responsibilities of the Administrator

Duties of the Cherokee County Engineering Department shall include, but shall not be limited to:

- (1) Review all development applications and permits to assure that the requirements of this ordinance have been satisfied;
- (2) Require that copies of all necessary permits from governmental agencies from which approval is required by Federal or State law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334, be provided and maintained on file;
- (3) When Base Flood Elevation data or floodway data have not been provided, then the Cherokee County Engineering Department shall to obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other sources in order to meet the provisions of Sections 6 and 7;
- (4) Record and verify the actual elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all new or substantially improved structures;
- (5) Record and verify the actual elevation, in relation to mean sea level to which any new or substantially improved structures have been flood-proofed;
- (6) When flood-proofing is utilized for a non-residential structure, the Cherokee County Engineering Department shall obtain certification of design criteria from a registered professional engineer or architect;
- (7) Notify affected adjacent communities and the Georgia Department of Natural Resources prior to any alteration or relocation of a watercourse and submit

evidence of such notification to the Federal Emergency Management Agency (FEMA);

- (8) For any altered or relocated watercourse, submit engineering data/analysis within six (6) months to the FEMA to ensure accuracy of community flood maps through the Letter of Map Revision (LOMR) process. Assure flood carrying capacity of any altered or relocated watercourse.
- (9) Where interpretation is needed as to the exact location of boundaries of the Areas of Special Flood Hazard (e.g., where there appears to be a conflict between a mapped boundary and actual field conditions) the Cherokee County Engineering Department shall make the necessary interpretation. Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this ordinance. Where floodplain elevations have been defined, the floodplain shall be determined based on flood elevations rather than the area graphically delineated on the floodplain maps; and,
- (10) All records pertaining to the provisions of this ordinance shall be maintained in the office of the Cherokee County Engineering Department and shall be open for public inspection.

Section 6. Standards for Development

6.1. Definition of Floodplain Boundaries

- (1) Studied “A” zones, as identified in the FIS, shall be used to establish base flood elevations whenever available.
- (2) For Special Flood Hazards Areas and flood prone areas, the base flood elevations (BFE) shall be determined by a registered professional engineer using methods and computer model approved by FEMA and accepted by the Cherokee County Engineering Department.
- (3) The boundaries of the floodplain and floodway shall be shown on the site plan containing existing topographic information.

6.2. Definition of Floodway Boundaries

- (1) The width of a floodway shall be determined from the FIS or FEMA approved flood study.
- (2) Following a pre-design conference with the Cherokee County Engineering Department, the boundaries or limits of the floodway shall be shown on the (*development or stormwater*) site plan containing existing topographic information.

6.3. General Standards

- (1) No construction or structures, including grading, filling, cutting or displacement of earth shall be allowed within the future-conditions floodplain that could result in any of the following:
 - (a) Raising the future-conditions flood elevation beyond the boundaries of the ownership of the property being developed unless contained in a drainage easement obtained by the developer;
 - (b) Reducing the base flood storage capacity. All compensation for storage capacity shall occur either within the boundaries of ownership of the property being developed, or within a permanent, recorded flood control easement, and shall be within a reasonable proximity to the location of the encroachment. Acceptable means of providing required compensation include: lowering of natural ground elevations within the floodplain; or, lowering of adjoining land areas to create additional floodplain; or raising of the base flood elevation within the boundaries of ownership of the property being developed. All cut areas are to be graded to a slope of no less than 1.0 percent. In no case shall any required compensation be provided via bottom storage or by excavating below the elevation of the top of the natural (pre-development) stream channel unless such excavation results from the widening or relocation of the stream channel. A step-backwater analysis will be required to determine the volume of flood storage created by raising the base flood elevation;
 - (c) Changing the flow characteristics of the waters of the base flood as they pass both the upstream and the downstream boundaries of the property. Verification shall be provided via a step-backwater analysis; or,
 - (d) Creating hazardous or erosion-producing velocities, or resulting in excessive sedimentation. In all cases effective transitions must be provided such that flow velocities occurring on both upstream and downstream properties are not increased or decreased.
- (2) All proposed development shall have public utilities and facilities, such as sanitary sewer, gas, electrical and water system, located and constructed to minimize or eliminate infiltration of flood waters into the system.
- (3) Any significant changes or revisions to the flood data adopted herein and shown on the FIRM shall be submitted as a Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Amendment (CLOMA), whichever is applicable. The CLOMR submittal shall be subject to approval by the Cherokee County Engineering Department using the Community Consent forms before forwarding the submittal package to FEMA for final approval.

- (4) The responsibility for forwarding the CLOMR to FEMA and for obtaining the CLOMR approval shall be the responsibility of the applicant.

Within six months of the completion of construction, the applicant shall submit as built surveys, which demonstrate general conformance to the approved designs as submitted in the CLOMR application. A Letter of Map Revision (LOMR) must be issued before a Certificate of Occupancy can be issued.

6.4. Engineering Study Requirements for Floodplain Encroachments

An engineering study is required, as appropriate to the proposed development activities on the site, whenever a development proposes to disturb the future-conditions floodplain. This study shall be prepared by a currently registered Professional Engineer in the State of Georgia and made a part of the application for a permit. This information shall be submitted to and approved by the Cherokee County Engineering Department prior to the approval of any permit, which would authorize the disturbance of land located within the future-conditions floodplain. Such study shall include:

- (1) Description of the extent to which any watercourse or floodplain will be altered or relocated as a result of the proposed development;
- (2) Step-backwater analysis, using a FEMA approved methodology and approved by the Cherokee County Engineering Department. Cross-sections (which may be supplemented by the applicant) and flow information will be obtained whenever available. Computations will be shown duplicating FIS results and will then be rerun with the proposed modifications to determine the new base flood and future-conditions flood profiles;
- (3) Future-conditions floodplain storage calculations based on cross-sections (at least one every 100 feet) showing existing and proposed floodplain conditions to show that base flood storage capacity would not be diminished by the development;
- (4) If changes to the base flood elevation are proposed, profiles of the channel showing the existing and proposed base flood elevations must be provided; and,
- (5) The study shall include registered professional engineer/architect certified copies of a preliminary plat, grading plan, or site plan, as appropriate, which shall clearly define all floodplain encroachments.

6.5. Floodway Encroachments

Located within Areas of Special Flood Hazard are areas designated as floodway. A floodway may be an extremely hazardous area due to velocity flood-waters, debris or erosion potential.

In addition, floodways must remain free of encroachment in order to allow for the discharge of the base flood without increased flood heights. Therefore, the following provisions shall apply:

- (1) Encroachments are prohibited, including earthen fill, new construction, substantial improvements or other development within the regulatory floodway. Development may be permitted provided it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the encroachment shall not result in any increase to the pre-project base flood elevations, floodway elevations, or floodway widths during the base flood discharge. A registered professional engineer must provide supporting technical data and certification thereof; and,
- (2) If the applicant proposes to revise the floodway boundaries, no permit authorizing the encroachment into or an alteration of the floodway shall be issued by the Cherokee County Engineering Department until an affirmative Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Amendment (CLOMA), whichever is applicable, is issued by FEMA.
- (3) Only if Section 6.5(1) and (2) above are satisfied, then any new construction or substantial improvements shall comply with all other applicable flood hazard reduction provisions of this ordinance.

6.6. Maintenance Requirements

The property owner shall be responsible for continuing maintenance as may be needed within an altered or relocated portion of a floodplain on his property so that the future-conditions flood-carrying or flood storage capacity is not diminished. The Cherokee County Engineering Department may direct the property owner (at no cost to Cherokee County) to restore the flood-carrying or flood storage capacity of the floodplain if the owner has not performed maintenance as required by the approved Floodplain Management/Flood Damage Prevention Plan on file with the Cherokee County Engineering Department.

Section 7. Provisions for Flood Hazard Reduction

7.1. General Standards

In all Areas of Special Flood Hazard the following provisions apply:

- (1) New construction of principal buildings (residential or non-residential), including manufactured homes, shall not be allowed within the limits of the floodplain, unless all requirements of Sections 6.3 and 6.4 have been met;

- (2) New construction or substantial improvements of existing structures shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (3) New construction or substantial improvements of existing structures shall be constructed with materials and utility equipment resistant to flood damage;
- (4) New construction or substantial improvements of existing structures shall be constructed by methods and practices that minimize flood damage;
- (5) Elevated Buildings – All new construction or substantial improvements of existing structures that include any fully enclosed area located below the lowest floor formed by foundation and other exterior walls shall be designed so as to be an unfinished or flood resistant enclosure. The enclosure shall be designed to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater.
 - (a) Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
 - (i) Provide 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;
 - (ii) The bottom of all openings shall be no higher than one foot above grade; and,
 - (iii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwater in both directions.
 - (b) So as not to violate the "Lowest Floor" criteria of this ordinance, the unfinished or flood resistant enclosure shall only be used for parking of vehicles, limited storage of maintenance equipment used in connection with the premises, or entry to the elevated area; and,
 - (c) The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
- (6) All heating and air conditioning equipment and components, all electrical, ventilation, plumbing, 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;
- (7) Manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable State requirements for resisting wind forces;
- (8) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

- (9) 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;
- (10) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding; and,
- (11) Any alteration, repair, reconstruction or improvement to a structure, which is not compliant with the provisions of this ordinance, shall be undertaken only if the non-conformity is not furthered, extended or replaced.

7.2. Building Standards for Structures within the Special Flood Hazard Area (AE, A1-30, AO, and AH) with base flood elevations, the following provisions addition to those in Section 7.1 of this ordinance, shall apply:

- (1) Residential Buildings
 - (a.) New construction. New construction of principal buildings, including manufactured homes shall not be allowed within the limits of the floodplain unless all requirements of Section 6.4 have been met. If all of Section 6.4 requirements have been meet, all New Construction shall have the lowest floor, including basement, elevated no lower than three (3) feet above the base flood elevation adjacent to the building or at least as high as the Future-conditions Flood Elevations, whichever is higher. Should solid foundation perimeter walls be used to elevate the structure, openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards of Section 7.1(5)
 - (b.) Substantial Improvements. Substantial improvement of any structure or manufactured home shall have the lowest floor, including basement, elevated no lower than three (3) feet above the base flood elevation adjacent to the building or at least as high as the Future-conditions Flood Elevation, whichever is highest. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood-waters shall be provided in accordance with standards of Section 7.1 (5), "Elevated Buildings."
- (2) Non-Residential Buildings
 - (a.) New construction. New construction of principal buildings, including manufactured homes shall not be allowed within the limits of the floodplain, unless all requirements of Section 6.4 have been met. New construction that has met all of Section 6.4 requirements may be flood-proofed in lieu of elevation. Any structure located in A1- 30, AE, or AH zones, may be authorized by the Cherokee County Engineering Department to be flood-proofed in lieu of elevation.

The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to one (1) foot above the base flood elevation, or at least as high as the future-conditions flood elevation, whichever is highest, with walls substantially impermeable to the passage of water, and 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 design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the Cherokee County Engineering Department.

(b.) Substantial Improvements. Substantial improvement of any structure located in A1- 30, AE, or AH zones, may be authorized by the Cherokee County Engineering Department to be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to one (1) foot above the base flood elevation, or at least as high as the future-conditions flood elevation, whichever is highest, with walls substantially impermeable to the passage of water, and 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 design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the Cherokee County Engineering Department.

(3) Accessory Structures and Facilities

Accessory structures and facilities (i.e., barns, sheds, gazebos, detached garages, parking lots, recreational facilities and other similar structures and facilities) which are permitted to be located within the limits of the floodplain shall be designed, constructed to pass all floodwater and anchored in a manner consistent with this ordinance.

(4) Standards for Recreational Vehicles

All recreational vehicles placed on sites must either:

(a) Be fully licensed and ready for highway use, (a recreational vehicle is ready for highway use if it is licensed, on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached structures or additions); or

(b) The recreational vehicle must meet all the requirements for "Residential Buildings—Substantial Improvements", including the anchoring and elevation requirements above.

(5) Standards for Manufactured Homes

(a) Manufactured homes placed and/or substantially improved in an existing manufactured home park or subdivision may be elevated so that either:

- (i) The lowest floor of the manufactured home is elevated no lower than one foot above the level of the base flood elevation, or
 - (ii) The manufactured home chassis is elevated and supported by reinforced piers (or other foundation elements of at least an equivalent strength) of no less than 36 inches in height above grade.
- (b) All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. (ref. Section 7.1(7) above)
- (c) All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

7.3. Building Standards for Structures and Buildings Authorized Adjacent to the Floodplain

- (1) Residential Buildings – For new construction or substantial improvement of any principal residential building or manufactured home, the elevation of the lowest floor, including basement and access to the building, shall be at least three (3) feet above the level of the highest base flood elevation adjacent to the building or at least as high as the Future-conditions flood elevation whichever is highest.
- (2) Non-Residential Buildings – For new construction or substantial improvement of any principal non-residential building, the elevation of the lowest floor, including basement and access to the building, shall be at least one (1) foot above the level of the highest base flood elevation adjacent to the building or at least as high as the Future-conditions flood elevation whichever is highest.

7.4. Building Standards for Streams Without Established Base Flood Elevations and/or Floodway (A-Zones)

Located within the Areas of Special Flood Hazard, where streams exist but no base flood data have been provided (A-Zones) the following provisions apply:

- a. the Cherokee County Engineering Department shall review and reasonably utilize any available scientific or historic flood elevation or base flood elevation and floodway data available from a Federal, State, or other source, in order to administer the provisions and standards of this Section.
- b. If sufficient data are not available from these sources, then the Cherokee County Engineering Department may accept a hydrologic assessment performed by a

- registered professional engineer, using FEMA approved methodologies, to determine the base flood and floodway elevations.
- c. All New construction and substantial improvements to existing structures shall have the lowest floor of the lowest enclosed area (including basement) elevated no less than three (3) feet above the base flood elevation.
 - d. Openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards of Section 7.1(5) of this ordinance.
 - e. No encroachments, including structures or fill material, shall be located within an area equal to the width of the stream or twenty feet, whichever is greater, measured from the top of the stream bank, unless certification by a registered professional engineer is provided demonstrating that such encroachment shall not result in no more than a one (1) foot increase in the flood levels during the occurrence of the base flood discharge.

7.5.5. Building Standards for Areas of Shallow Flooding (AO-Zones)

Areas of Special Flood Hazard may include designated "AO" shallow flooding areas. These areas have base flood depths of one to three feet (1'-3') above ground, with no clearly defined channel. In these areas the following provisions apply:

- (1) All substantial improvements of residential and non-residential structures shall have the lowest floor, including basement, elevated to the flood depth number specified on the Flood Insurance Rate Map (FIRM), above the highest adjacent grade. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least three (3) feet above the highest adjacent grade. Openings sufficient to facilitate the unimpeded movements of flood-waters shall be provided in accordance with standards for "Elevated Buildings"

The applicant's or owner's engineer shall certify to the Cherokee County Engineering Department that the lowest floor elevation level and the record shall become a permanent part of the permit file;

- (2) Substantial improvement of a non- residential structure may be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to the specified FIRM flood level plus one (1) foot above the highest adjacent grade, with walls substantially impermeable to the passage of water, and 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 design and methods of construction are in accordance with accepted standards of practice; and,
- (3) Drainage paths shall be provided to guide floodwater around and away from any proposed structure.

7.6. Standards for Subdivisions

- (1) All subdivision proposals shall identify the special flood hazard area and provide base flood and Future-conditions flood elevation data;
- (2) All subdivision plans will provide the elevation of proposed structure(s) and pad(s). If the site is filled above the base flood or Future-conditions flood elevation, the lowest flood and pad elevations shall be certified by a registered professional engineer or surveyor and provided to the Cherokee County Engineering Department;
- (3) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (4) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage; and,
- (5) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.

7.7. Standards for Utilities

- (1) All new and replacement water supply and sanitary sewerage systems shall be designed to minimize or eliminate:
 - (a) infiltration of flood waters into the systems; and,
 - (b) discharges from the systems into flood waters.
- (2) On-site waste disposal systems shall be located outside the floodplain to avoid impairment to them, or contamination from them during flooding.

Section 8. Variance Procedures

- (1) The Cherokee County Zoning Board of Appeals as established by the Cherokee County Board of Commissioners shall hear and decide requests for appeals or variance from the requirements of this ordinance.
- (2) The board shall hear and decide appeals when it is alleged an error in any requirement, decision, or determination is made by the Cherokee County Engineering Department in the enforcement or administration of this ordinance.

- (3) Any person aggrieved by the decision of the Cherokee County Zoning Board of Appeals may appeal such decision to the Superior Court of Cherokee County, as provided in Section 5-4-1 of the Official Code of Georgia Annotated.
- (4) Variances may be issued for the repair or rehabilitation of Historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an Historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- (5) Variances may be issued for development necessary for the conduct of a functionally dependent use, provided the criteria of this Section are met, no reasonable alternative exists, and the development is protected by methods that minimize flood damage during the base flood and create no additional threats to public safety.
- (6) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (7) In reviewing such requests, the Cherokee County Zoning Board of Appeals shall consider all technical evaluations, relevant factors, and all standards specified in this and other sections of this ordinance.
- (8) Conditions for Variances:
 - (a) A variance shall be issued only when there is:
 - (i) a finding 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, or cause fraud on or victimization of the public.
 - (b) The provisions of this ordinance are minimum standards for flood loss reduction, therefore any deviation from the standards must be weighed carefully. Variances shall only be issued upon determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and, in the instance of an Historic structure, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building.

(c) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation of the proposed lowest floor and stating that the cost of flood insurance will be commensurate with the increased risk to life and property resulting from the reduced lowest floor elevation.

(d) The Cherokee County Engineering Department shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

(9) Upon consideration of the factors listed above and the purposes of this ordinance, the Cherokee County Zoning Board of Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

Section 9. Violations, Enforcement and Penalties

Any action or inaction which violates the provisions of this ordinance or the requirements of an approved stormwater management plan or permit, may be subject to the enforcement actions outlined in this Section. Any such action or inaction which is continuous with respect to time is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

9.1. Notice of Violation

If the Cherokee County Engineering Department determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management plan or the provisions of this ordinance, it shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this ordinance without having first secured a permit therefore, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site.

The notice of violation shall contain:

- (1) The name and address of the owner or the applicant or the responsible person;
- (2) The address or other description of the site upon which the violation is occurring;
- (3) A statement specifying the nature of the violation;
- (4) A description of the remedial measures necessary to bring the action or inaction into compliance with the permit, the Floodplain Management/Flood Damage Prevention Plan or this ordinance and the date for the completion of such remedial action;

- (5) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
- (6) A statement that the determination of violation may be appealed to the Cherokee County Engineering Department by filing a written notice of appeal within thirty (30) days after the notice of violation (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient).

9.2. Penalties

In the event the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was directed. Before taking any of the following actions or imposing any of the following penalties, the Cherokee County Engineering Department shall first notify the applicant or other responsible person in writing of its intended action, and shall provide a reasonable opportunity, of not less than ten (10) days (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) to cure such violation. In the event the applicant or other responsible person fails to cure such violation after such notice and cure period, the Cherokee County Engineering Department may take any one or more of the following actions or impose any one or more of the following penalties.

- (1) **Stop Work Order** -The Cherokee County Engineering Department may issue a stop work order, which shall be served on the applicant or other responsible person. The stop work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein, provided the stop work order may be withdrawn or modified to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation or violations.
- (2) **Withhold Certificate of Occupancy** - The Cherokee County Engineering Department may refuse to issue a Certificate of Occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.
- (3) **Suspension, Revocation or Modification of Permit** - The Cherokee County Engineering Department may suspend, revoke or modify the permit authorizing the development project. A suspended, revoked or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated (upon such conditions as the Cherokee County Engineering Department may deem necessary)

to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

- (4) **Civil Penalties** - In the event the applicant or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within ten (10) days, or such greater period as the Cherokee County Engineering Department shall deem appropriate (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) after the Cherokee County Engineering Department has taken one or more of the actions described above, the Cherokee County Engineering Department may impose a penalty not to exceed \$1,000 (depending on the severity of the violation) for each day the violation remains unremedied after receipt of the notice of violation.
- (5) **Criminal Penalties** - For intentional and flagrant violations of this ordinance, the Cherokee county Engineering Department may issue a citation to the applicant or other responsible person, requiring such person to appear in Cherokee County Magistrate Court to answer charges for such violation. Upon conviction, such person shall be punished by a fine not to exceed \$1,000 or imprisonment for 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.

Enacted this _____ day of _____, 2005.

Cherokee County Board of Commissioners

J. Michael Byrd, Chairman

Attest:

Sheila R. Corbin, County Clerk

NOTE: Upon adoption, a dated, signed and sealed copy of this ordinance should be submitted to the Georgia Department of Natural Resources, Floodplain Management Department and to the Region 4 office of the Federal Emergency Management Agency, 3003 Chamblee Tucker Road, Atlanta, Georgia 30341. This will insure that the latest ordinance is approved and on file for each community participating in the National Flood Insurance Program.