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PLANNING AND NEIGHBORHOOD SERVICES

Zoning Staff Report

Case: ZT 2012-008 Amendment of UDO Related to Flood Damage Reduction		
Reference Name	General Housekeeping of Chapter 1360	
Applicant	Town of Indian Trail	
Submittal Date	March 4, 2013	
Location	Town-wide	
Tax Map Number	N/A	
Plan Consistency	Town of Indian Trail Comprehensive Plan	Consistent With Request
Recommendations & Comments	Planning Staff	Recommends Approval of Proposed Text Amendment.

Project Summary
This is a request to amend Chapter 1360 – Flood Damage Reduction Ordinance for the purpose of correcting cross-references within the Chapter.

Staff Recommendation- Staff recommends based on the guidance of the adopted plans that the text amendment be supported by recommending its approval to the Town Council

Analysis
This request is a simple housekeeping exercise to correct internal cross referencing within this Chapter. No other modifications are proposed. Exhibit A- of the attached draft ordinance provides the draft amendment of Chapter 1360 of the UDO.

Required Consistency Findings

The Planning Board is required to make two consistency findings, one for consistency with Town adopted plans and another regarding the benefit of the public. Staff is of the opinion the following findings can be made:

1. The proposed UDO amendment is consistent with the following goals:

   1.3.5 of the Comprehensive Plan- *Utilities*; the proposed UDO ordinance amendment will clarify stormwater requirements promoting best management practices; and

2. This UDO ordinance amendment is in the best interest of the public because it clarifies stormwater regulations within the Unified Development Ordinance thereby enhancing customer service in the Town.

Staff recommends that the Planning Board make the required consistency findings and recommend adoption of this UDO Text Amendment as presented to the Town Council.

Staff Contact
Shelley DeHart, AICP
Director of Planning
srd@planning.indiantrail.org

Attachment 1: Draft Ordinance

ATTACHMENT ONE

DRAFT

STATE OF NORTH CAROLINA)
) **ORDINANCE #**
TOWN OF INDIAN TRAIL)

AN ORDINANCE AMENDING CHAPTER 1360 FLOOD DAMAGE REDUCTION ORDINANCE OF THE INDIAN TRAIL UNIFIED DEVELOPMENT ORDINANCE (UDO) RELATED TO STORMWATER REQUIREMENTS IN INDIAN TRAIL, NORTH CAROLINA

WHEREAS, the Town is the applicant for ZT 2012-008 requesting to amend Chapter 1360 – Flood Damage Reduction of the UDO to correct the cross referencing within the Chapter; and

WHEREAS, this Zoning Amendment (ZT 2012-008) was duly noticed in compliance with North Carolina General Statutes; and

WHEREAS, the amendment was heard by Planning Board on May 21, 2013 in a public meeting; and

WHEREAS, the Planning Board after hearing the amendment and deliberations made the following findings and recommended approval to the Town Council:

1. The proposed UDO amendment is consistent with the following goal:

   1.3.5 of the Comprehensive Plan- *Utilities*; the proposed UDO ordinance amendment will clarify stormwater requirements promoting best management practices.

2. This UDO ordinance amendment is in the best interest of the public because it clarifies stormwater regulations within the Unified Development Ordinance thereby enhancing customer service in the Town.

WHEREAS, the Town Council received the Planning Board transmittal for a recommendation of approval in the required public hearing held on June 11, 2013 and after receiving the transmittal, public comment, and deliberation, concur with the required findings and amendment recommendation as transmitted by the Planning Board.

NOW THEREFORE, BE IT ORDAINED ON JUNE 11, 2013 BY THE TOWN COUNCIL OF THE TOWN OF INDIAN TRAIL, NORTH CAROLINA HEREBY TAKES THE FOLLOWING ACTION:

Section 1 – UDO CHAPTER 1360 is hereby amended as shown in Exhibit A of this Ordinance;

Section 2- This ordinance shall be effective immediately upon adoption.

SO ORDAINED THIS 11th DAY OF JUNE, 2013.

THE TOWN COUNCIL OF INDIAN TRAIL

By _____
Honorable Michael L. Alvarez, Mayor

Attest:

_____
Peggy Piontek, Town Clerk

E. Signs attached to buildings that are exempt from the intersection visibility triangle requirements as specified in paragraphs "A" and "B," above.

F. A sign established in accordance with all applicable requirements of DIVISION 900 provided the bottom edge of the sign and any supporting structure is at least 9 feet above the adjacent curb level, so that visual clearance is maintained within the intersection visibility triangle. Poles and supporting structures for signs are prohibited within the intersection visibility triangle.

Chapter 1360. Flood Damage Reduction Ordinance

1360.010 Statutory Authorization

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3, 5, and 8 of Article 19 of Chapter 160A; and Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations designed to promote the public health, safety, and general welfare. Consistent with the requirements and standards of the North Carolina General Statutes the Town Council of Indian Trail, North Carolina has adopted the following standards in order to reduce property loss and damage associated with flooding. A complete Table of Contents for this Chapter is provided in Appendix 3 of this UDO.

1360.020 Purpose

A. The Special Flood Hazard Area (SFHA) of the Town is subject to periodic inundation that could result in loss of life and property, hazards to public health and safety, disruption of commerce and governmental services, damage to and disruption of public utilities, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare. These losses and hazards are caused by the cumulative effect of obstructions in SFHAs, which increase flood heights and velocities, and by the occupancy in flood-prone areas by uses that are vulnerable to floods, or hazardous to other properties, because they are inadequately elevated, flood proofed, or otherwise protected from flood damages. Therefore, the regulations set forth in this section are designed to:

Exhibit A - Draft

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 SFHAs, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;

4. prevent or 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 degree of flood protection required by this section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This section does not imply that land outside the SFHA will be free from flooding or

flood damages. Neither shall this section create liability on the part of the Town or by any officer or employee thereof for any flood damages that result from reliance on this section or any administrative decision lawfully made hereunder.

1360.030 Definitions

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

1. *Accessory structure* (appurtenant structure) means a structure located on the same parcel of property as the principal Structure and the use of which is incidental to the use of the principal structure. 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) means an extension or increase in the floor area or height of a building or structure.

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

4. *Area of shallow flooding* means a designated Zone AO on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

5. *Areas of Special Flood Hazard* see *special flood hazard area* (SFHA).

6. *Basement* means any area of the building having its floor subgrade (below ground level) on all sides.

7. *Base Flood* means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

8. *Base Flood Elevation (BFE)* means a determination of the water surface elevations of the base flood as published in the *flood insurance study*. When the BFE has not been provided in a *SFHA*, it may be obtained from engineering studies available from a Federal, State, or other source using FEMA approved engineering methodologies. This elevation, when combined with the *freeboard*, establishes the *regulatory flood protection elevation*.

9. *Buildings* see *structure*.

10. *Chemical storage facility* means a building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

11. *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.

Exhibit A - Draft

12. *Disposal* means, 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 groundwater.

13. *Elevated building* means a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

14. *Encroachment* means the advance or infringement of uses, fill, excavation, buildings, Structures or development into a SFHA, which may impede or alter the flow capacity of a SFHA. Building renovations contained within the existing building footprint area are not considered an encroachment.

15. *Existing manufactured home park or manufactured home subdivision* means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before the initial effective date of the floodplain management regulations adopted by the community.

16. *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; and/or

b. the unusual and rapid accumulation of runoff of surface waters from any source.

Exhibit A Draft

17. *Flood boundary and floodway map* (FBFM) means an official map of a community, issued by the Federal Emergency Management Agency, on which the SFHAs and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the *flood insurance rate map* (FIRM).

18. *Flood hazard boundary map* (FHBM) means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the SFHAs have been defined as Zone A.

19. *Flood insurance* means the insurance coverage provided under the National Flood Insurance Program.

20. *Flood Insurance Rate Map (FIRM)* means an official map of a community, issued by the Federal Emergency Management Agency, on which both the SFHAs and the risk premium zones applicable to the community are delineated.

21. *Flood insurance study (FIS)* means an examination, evaluation, and determination of flood hazards, corresponding water surface elevations (if appropriate), flood hazard risk zones, and other flood data in a community issued 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.

22. *Flood prone area* see *floodplain.*

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

24. *Floodplain administrator* is the individual appointed to administer and enforce the floodplain management regulations. For the purposes of this ordinance, *floodplain administrator* is synonymous with *storm water administrator*.

25. *Floodplain development permit* means any type of permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity.

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

27. *Floodplain management regulations* means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power. This term describes Federal, State or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

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

29. *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 (1) foot.

Exhibit A - Draft

30. *Flood zone* means a geographical area shown on a *flood hazard boundary map* or *flood insurance rate map* that reflects the severity or type of flooding in the area.

31. *Freeboard* means the height added to the *base flood elevation* (BFE) to account for the many unknown factors that could contribute to flood heights greater that the height calculated for a selected size flood and *floodway* conditions, such as wave action, blockage of bridge openings, and the hydrological effect of urbanization of the watershed. The *base flood elevation* plus the *freeboard* establishes the *regulatory flood protection elevation*.

32. *Hazardous waste management facility* means, as defined in NCGS 130A, Article 9, a facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste.

33. *Highest adjacent grade (HAG)* means the highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the *structure*.

34. *Historic structure* means any *structure* that is:

a. listed individually in the National Register of Historic Places (a listing maintained by the US Department Interior) or preliminarily determined by the Secretary of

Interior as meeting the requirements for individual listing on the National Register;

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;

c. individually listed on a local inventory of historic landmarks in communities with a "Certified Local Government (CLG) Program"; or

d. certified as contributing to the historical significance of a historic district designated by a community with a "Certified Local Government (CLG) Program". Certified Local Government (CLG) Programs are approved by the US Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

35. *Lowest adjacent grade (LAG)* means the elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

36. *Lowest floor* means 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.

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

Exhibit A - Draft

38. *Manufactured Home Park or Subdivision* means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

39. *Market value* means 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.

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

41. *New Construction* means *structures* for which the *start of construction* commenced on or after the effective date of the initial floodplain management regulations and includes any subsequent improvements to such *structures*.

42. *Non-Encroachment Area* means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

43. *Post-FIRM* means construction or other development for which the *start of construction* occurred on or after the effective date of the initial *flood insurance rate map*.

44. *Pre-FIRM* means construction or other development for which the *start of construction* occurred before the effective date of the initial *flood insurance rate map*.

45. *Principally Above Ground* means that at least 51% of the actual cash value of the *structure* is above ground.

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

47. *Recreational vehicle (RV)* 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 a light duty truck; and

d. designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

Exhibit A - Draft

48. *Reference level* is the bottom of the lowest horizontal structural member of the *lowest floor* for *structures* within all *SFHAs*. Reference level also defined as the bottom of the lowest horizontal structural member of the lowest floor for structures within all *SFHAs*.

49. *Regulatory flood protection elevation* means the *base flood elevation* plus the *freeboard*. In *SFHAs* where *base flood elevations* (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard. In *SFHAs* where no BFE has been established, this elevation shall be at least two (2) feet above the highest adjacent grade.

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

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

52. *Salvage yard* means 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.

53. *Solid waste disposal facility* means any facility involved in the disposal of solid waste, as defined in NCGS 130A-290(a) (35).

54. *Solid waste disposal site* means, 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.

55. *Special flood hazard area (SFHA)* means the land in the floodplain subject to a one percent (1%) or greater chance of being flooded in any given year, as determined in Section ~~Chapter 110~~1360.040B of this ordinance. Riverine SFHAs are shown on new format FIRMs as Zones A, AE, AH, AO, AR, and A99. Older FIRMs may have numbered A Zones (A1-A30).

56. *Start of Construction* includes substantial improvement, and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition 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.

Exhibit A - Draft

57. *Storm Water Administrator* is the individual appointed by the Town Manager to administer and enforce the floodplain management regulations and the Post-Construction Storm Water Ordinance in the Town of Indian Trail.

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

59. *Substantial damage* means damage of any origin sustained by a *structure* during any one-year period whereby the cost of restoring the *structure* to it's 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*.

60. *Substantial improvement* means 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:

a. 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

b. any alteration of a *historic structure* provided that the alteration will not preclude the structure's continued designation as a *historic structure*.

61. *Variance* is a grant of relief from the requirements of this ordinance.

62. *Violation* means the failure of a Structure or other development to be fully compliant with the community's floodplain management regulations. A *structure* or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section ~~Chapter 110~~1360.100 and Section~~s~~ ~~Chapter 110~~1360.120 is presumed to be in violation until such time as that documentation is provided.

63. *Water surface elevation (WSE)* means the height, in relation to mean sea level, of floods of various magnitudes and frequencies in the SFHAs.

64. *Watercourse* means a lake, river, creek, stream, wash, channel or other topographic feature on or over which water flows at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

1360.040 General Provisions

A. Lands to Which this Ordinance Applies

This ordinance shall apply to all SFHAs within the jurisdiction, including Extra-Territorial Jurisdictions (ETJs) if applicable, of the Town of Indian Trail and within the jurisdiction of any other community whose governing body agrees, by resolution, to such applicability.

Exhibit A - Draft

B. Basis for Establishing the Special Flood Hazard Areas.

The SFHAs are those 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 Union County and the Town of Indian Trail dated October 16, 2008, which are adopted by reference and declared to be a part of this ordinance.

1. The initial Flood Insurance Rate Maps for the jurisdictional areas at the initial date are entitled: Union County Unincorporated Area and the Town of Indian Trail, dated July 18, 1983.

1360.050 Establishment of Floodplain Development Permit

A floodplain development permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within SFHAs determined in accordance with the provisions of Section ~~Chapter 110~~1360.040B of this ordinance.

1360.060 Compliance

No structure or land within a Special Flood Hazard Area shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this ordinance and other applicable regulations. It is the property owners' and/or developers' responsibility to ensure all other ordinances are met including but not limited to the Post-Construction Storm Water Ordinance, Erosion and Sedimentation requirements, and Federal Water Pollution Control Act of 1972 ("Clean Water Act").

1360.070 Abrogation and Greater Restrictions

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

1360.080 Interpretation

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

A. considered as minimum requirements;

B. liberally construed in favor of the governing body; and

C. deemed neither to limit nor repeal any other powers granted to the Town under State statutes.

1360.090 Penalties for Violation

Violation of the provisions of this ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than $500.00 or imprisoned for not more than thirty (30) days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Indian Trail from taking such other lawful action as is necessary to prevent or remedy any violation.

1360.100 Administration

A. Designation of Storm Water Administrator

The Town Manager designates the Indian Trail Town Engineer as the Storm Water Administrator. The Storm Water Administrator, and his or her designees, is the person with the authority to administer, implement and enforce the provisions of this ordinance. The Storm Water Administrator, and his or her designees, administers the Flood Damage Reduction Ordinance as well as the Post Construction Ordinance.

Exhibit A - Draft

B. Duties and Responsibilities of the Storm Water Administrator

The Storm Water Administrator shall perform, but not be limited to, the following duties:

1. Review all floodplain development applications and issue permits for all proposed development within SFHAs to assure that the requirements of this ordinance have been satisfied.

2. Review all proposed development within SFHAs to assure that all necessary local, state and federal permits have been received.

3. Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).

4. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained.

5. Prevent encroachments into the SFHAs, floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of Section ~~Chapter 110~~1360.120A, Section ~~Chapter 110~~1360.120A.18, and Section ~~Chapter 110~~1360.150 are met.

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6. Obtain actual elevation (in relation to mean sea level) of the Reference Level (including basement) and all attendant utilities of all new and substantially improved structures, in accordance with Section ~~Chapter 110~~1360.110D

7. 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 the provisions of Section ~~Chapter 110~~1360.110D.

8. Obtain actual elevation (in relation to mean sea level) of all public utilities in accordance with the provisions of Section ~~Chapter 110~~1360.110D.

9. When floodproofing is utilized for a particular Structure, obtain certifications from a registered professional engineer or architect in accordance with the provisions of Section ~~Chapter 110~~1360.110D and ~~Chapter 110~~1360.120B.2.

10. Where interpretation is needed as to the exact location of boundaries of the SFHAs, Floodways, or Non-Encroachment Areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

11. When Base Flood Elevation (BFE) data has not been provided, obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with Floodway data or Non-Encroachment Area data available from a Federal, State, or other source, including data developed pursuant to Section ~~Chapter 110~~1360.130B.2, in order to administer the provisions of this ordinance.

Exhibit A - Draft

12. When Base Flood Elevation (BFE) data is provided but no Floodway or Non-Encroachment Area data has been provided in accordance with Section Chapter 110, obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a Federal, State, or other source in order to administer the provisions of this ordinance.

13. When the lowest floor and the lowest adjacent grade of a structure or the lowest ground elevation of a parcel 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 LOMA issued by FEMA in the floodplain development permit file.

14. Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection, recognizing that such information may be subject to the Privacy Act of 1974, as amended.

15. Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the Storm Water Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the Storm Water Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

16. Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the Storm Water Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing or in charge of the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

17. Revoke floodplain development permits as required. The Storm Water Administrator may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, and specifications; for refusal or failure to comply with the requirements of State or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable State or local law may also be revoked.

18. Make periodic inspections throughout the SFHAs within the jurisdiction of the community.

19. Follow through with corrective procedures of Section ~~Chapter 110~~1360.160.

Exhibit A - Draft

20. Review, provide input, and make recommendations for variance requests.

21. 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 Section ~~Chapter 110~~ 1360.040B of this ordinance, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify State and FEMA of mapping needs.

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

1360.110 Floodplain Development Application, Permit and Certification Requirements

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A. Any development in a special flood hazard area is required to have a floodplain development permit prior to the actual start of construction.

B. Application for a floodplain development permit shall be made to the Storm Water Administrator prior to any development activities located within SFHAs. The following

items shall be presented to Storm Water Administrator to apply for a floodplain development permit:

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 area as delineated on the FIRM or other flood map as determined in Section ~~Chapter 110~~1360.040B, 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 FIRM or other flood map as determined in Section ~~Chapter 110~~1360.040B;

d. the boundary of the Floodway(s) or Non-Encroachment Area(s) as determined in Section ~~Chapter 110~~1360.040B;

e. the Base Flood Elevation (BFE) where provided as set forth in Section ~~Chapter 110~~1360.040B;

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f. the old and new location of any watercourse that will be altered or relocated as a result of proposed development.

g. the certification of the plot plan by a registered land surveyor or professional engineer.

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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, A or AO 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 automatic equalization of hydrostatic flood forces on walls in accordance with Section ~~Chapter 110~~1360.120B.4.c when solid foundation perimeter walls are used in Zones A, AO, and AE;

5. Usage details of any enclosed areas below the lowest floor.

6. 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;

7. Certification that all other local, state and federal permits required prior to floodplain development permit issuance have been received.

8. Documentation for placement of recreational vehicles and/or temporary structures, when applicable, to ensure that the provisions of Section ~~Chapter 110~~1360.120B.6 and Section ~~Chapter 110~~1360.120B.7 of this ordinance are met.

9. 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 plot plan) showing the location of the proposed watercourse alteration or relocation. The engineering report will include all applicable calculations, hydrologic and hydraulic models, and must be signed and sealed by a North Carolina registered professional engineer.

C. The Floodplain Development Permit shall include, but not be limited to:

Exhibit A - Draft

1. A detailed narrative of the development to be permitted under the Floodplain Development Permit.

2. The Special Flood Hazard Area determination for the proposed development in accordance with available data specified in Section ~~Chapter 110~~1360.040B.

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 Zones A, AO, or AE.

8. Limitations of below BFE enclosure uses (if applicable). (i.e., parking, building access and limited storage only).

D. Certification Requirements.

1. Elevation Certificates

a. A floor elevation or flood proofing certification must be submitted to the Storm Water Administrator within seven (7) calendar days of establishment of the lowest floor elevation, or flood proofing by whatever construction techniques. It shall be the duty of the permit holder to submit to the Storm Water Administrator a certification of the elevation of the lowest floor, flood proofed elevation, as built, in relation to mean sea level after construction is complete, prior to the issuance of a certificate of occupancy. Said certification shall be prepared by or under the direct supervision of a North Carolina registered land surveyor or professional engineer and certified by same. When flood proofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a North Carolina professional engineer and certified by same. Any work done within the seven (7) day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Storm Water Administrator shall, in a timely manner, review the floor elevation survey as submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project. Any work completed by the permit holder prior to Storm Water Administrator approval, shall be at the permit holder's own risk.

b. A final as-built Elevation Certificate (FEMA Form 81-31) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Storm Water Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Storm Water 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.

Exhibit A - Draft

2. Floodproofing Certificate

a. If non-residential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 81-65), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Storm Water Administrator 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 Storm Water Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to

construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.

3. If a manufactured home is placed within Zone A, AO, or AE, and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required in accordance with the provisions of Section ~~Chapter 110~~1360.120B.3.

4. If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit

5. Certification Exemptions. The following Structures, if located within Zone A, AO, or AE , are exempt from the elevation/floodproofing certification requirements specified in items (a) and (b) of this subsection:

a. Recreational vehicles meeting requirements of Section ~~Chapter 110~~1360.120B.6;

b. Temporary structures meeting requirements of Section ~~Chapter 110~~1360.120B.7; and

c. Accessory structures less than 150 square feet meeting requirements of Section ~~Chapter 110~~1360.120B.8.

E. Expiration of Floodplain Development Permit

Floodplain Development Permits issued pursuant to this ordinance expire two years after the date of issuance unless: 1) the work has commenced within two (2) years after the date of issuance, or 2) the issuance of the permit is legally challenged in which case the permit is valid for two (2) years after the challenge has been resolved.

Exhibit A - Draft

1360.120 Provisions for Flood Hazard Reduction

A. General Standards

In all SFHAs, the following provisions are required:

1. The Town of Indian Trail has prohibited most development in all studied and non-studied SFHAs. No encroachments, including fill, new construction, stormwater detention, substantial improvements and other developments shall be permitted within any portion of SFHAs unless a variance is granted, with the following exceptions:

a. The development is for roads, greenway trails, boardwalks, pedestrian crossings, agricultural uses, forestry, parks, playground or other park related equipment, fences, provided that at least eighty (80) percent of the fence shall be open area, and shall be elevated at a minimum, one (1) foot above the ground, public utilities and facilities such as wastewater utility lines, storm drainage construction and repair with approval by the Storm Water Administrator, gas, electrical, water systems and similar uses that are located and constructed to minimize flood damage.

2. All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, and lateral movement of the Structure.

3. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

4. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.

5. 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 to the regulatory flood protection elevation. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.

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

7. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters.

8. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

9. 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.

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10. Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this ordinance and located totally or partially within the SFHAs , provided there is no additional encroachment below the SFHAs , and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance.

11. New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted.

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

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

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

15. 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.

16. When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.

17. When a structure is located in multiple SFHAs or in a special flood hazard area with multiple base flood elevations, the provisions for the more restrictive special flood hazard area and the highest base flood elevation shall apply.

18. For projects granted a variance, a "No-Impact" certification is required from a North Carolina registered professional engineer. "No-Impact" means no increase in flood elevations greater than zero (0.00) feet, no decrease in flood elevations of more than one-tenth (0.10) of a foot, and no increase in floodway or non-encroachment area widths.

B. Specific Standards

The following specific standards apply to projects that have been granted a development variance or meet the criteria as identified in Section ~~Chapter 110~~1360.120A. In all SFHAs where base flood elevation (BFE) data has been provided, as set forth in Section ~~Chapter 110~~1360.040B, the following provisions, in addition to the provisions of Section ~~Chapter 110~~1360.120A, are required:

1. Residential Construction.

New construction and substantial improvement of any residential Structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section ~~Chapter 110~~1360.03049 of this ordinance. The regulatory flood protection elevation being the base flood elevation plus two (2.0) feet of freeboard.

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2. Non-Residential Construction.

New construction and substantial improvement of any commercial, industrial, or other non-residential Structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section ~~Chapter 110~~1360.03049 of this ordinance. Structures located in A, AE, and AO, and Zones 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 Storm Water Administrator along with the operational and maintenance plans.

3. Manufactured Homes.

a. New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation, as defined in Section ~~Chapter 110~~1360.03049 of this ordinance.

b. Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by certified engineered foundation system, 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.

c. All enclosures or skirting below the lowest floor shall meet the requirements of Section ~~Chapter 110~~1360.120B.4.

d. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Storm Water Administrator and the local Emergency Management coordinator.

4. Elevated Buildings.

Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

a. 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;

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b. shall be constructed entirely of flood resistant materials at least to the regulatory flood protection elevation;

c. shall include, in Zones A, AO, and AE, 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:

(1) a minimum of two flood openings on different sides of each enclosed area subject to flooding;

(2) 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;

(3) if a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;

(4) the bottom of all required flood openings shall be no higher than one (1) foot above the adjacent grade;

(5) 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

(6) 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.

5. Additions/Improvements.

a. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing Structure are:

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

(2) A substantial improvement, the existing structure and the addition and/or improvements must comply with the standards for new construction.

b. Additions to post-FIRM structures with no modifications to the existing Structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.

c. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

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(1) Not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.

(2) A substantial improvement, the existing Structure and the addition and/or improvements must comply with the standards for new construction.

6. Recreational Vehicles.

Recreational vehicles shall either:

a. Be on site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities, and has no permanently attached additions); or

b. Meet all the requirements for new construction.

7. Temporary Non-Residential Structures.

Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the Storm Water Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Storm Water Administrator for review and written approval:

a. a specified time period for which the temporary use will be permitted. Time specified may not exceed three months, renewable up to one year;

b. the name, address, and phone number of the individual responsible for the removal of the temporary structure;

c. the time frame prior to the event at which a Structure will be removed (i.e., minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);

d. a copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and

e. designation, accompanied by documentation, of a location outside the special flood hazard area, to which the temporary structure will be moved.

8. Accessory Structures.

When accessory structures (sheds, detached garages, etc.) are to be placed within a special flood hazard area, the following criteria shall be met:

a. accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);

b. accessory structures shall not be temperature-controlled;

c. accessory structures shall be designed to have low flood damage potential;

d. accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;

e. accessory structures shall be firmly anchored in accordance with the provisions of Section ~~Chapter 110~~1360.120A.2;

f. all service facilities such as electrical shall be installed in accordance with the provisions of Section ~~Chapter 110~~1360.120A.5; and

g. flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below Regulatory Flood Protection Elevation in conformance with the provisions of Section ~~Chapter 110~~1360.120B.4.c.

h. 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 in accordance with Section ~~Chapter 110~~1360.110D.

9. Parking Lots.

All parking areas for new or substantially improved non-single family habitable buildings must be at an elevation such that water depths would be less than six (6.0) inches deep in any parking space during the occurrence of a FEMA base flood.

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1360.130 Standards for Floodplains without Established Base Flood Elevations

Within the SFHA designated as Approximate Zone A and established in Section ~~Chapter 110~~1360.040B, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to the provisions of Section ~~Chapter 110~~1360.120A, shall apply:

A. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of twenty (20) feet each side from top of bank or five times the width of the stream, or minimum stream buffer requirements, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:

1. When base flood elevation (BFE) data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this ordinance and shall be elevated or floodproofed in accordance with standards in Section ~~Chapter 110~~1360.120B. ~~and Section Chapter 110.~~

2. When Floodway data is available from a Federal, State, or other source, all new construction and substantial improvements within Floodway and Non-Encroachment areas shall also comply with the requirements of Section ~~Chapter 110~~1360.120A.18 and Section ~~Chapter 110~~1360.150.

3. All subdivision, manufactured home park and other development proposals shall provide base flood elevation (BFE) data if development is greater than one (1) acre or has more than ten (10) lots/manufactured home sites. Such base flood elevation (BFE) data shall be adopted by reference in accordance with Section ~~Chapter 110~~ 1360.040B and utilized in implementing this ordinance.

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4. When base flood elevation (BFE) data is not available from a federal, state, or other source as outlined above, the reference level shall be elevated or floodproofed (nonresidential) to or above the regulatory flood protection elevation, as defined in Section ~~Chapter 110~~1360.03049. All other applicable provisions of Section ~~Chapter 110~~1360.120 shall also apply.

1360.140 Standards for Riverine Floodplains with BFE but without Established Floodways or Non-Encroachment Areas

Along rivers and streams where BFE data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a special flood hazard area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

A. Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1.0) foot at any point within the community. For projects granted a variance, a "No-Impact" certification is required per Section 1360.120A.18.

1360.150 Floodways and Non-Encroachment Areas

Areas designated as floodways or non-encroachment areas are located within the SFHAs established in Section 1360.040B~~Chapter 110~~. The Floodways and Non-Encroachment Areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions shall apply to all development within such areas:

A. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless it has been demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that such Encroachment would not result in any increase in the FEMA Base Flood Elevations during the occurrence of a FEMA Base Flood. Such analysis shall be performed and certified by a North Carolina registered professional engineer and reviewed by the Storm Water Administrator. Any encroachment that would cause a rise in the FEMA Base Flood Elevation or an increase in the FEMA Floodway width during the occurrence of the FEMA Base Flood will require notification of impacted property owners, and a Conditional Letter of Map Revision (CLOMR) from FEMA. If approved and constructed, as-built plans must be submitted by the property owner and approved by FEMA and a Letter of Map Revision (LOMR) issued before a Certificate of Occupancy will be issued.

B. For projects granted a variance, a "No-Impact" certification is required per Section 1360.12~~3~~0A.18.

C. If Section ~~Chapter 110~~1360.120 and ~~, Section Chapter 110, and~~ Section ~~Chapter 110~~1360.150 is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.

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 Section ~~Chapter 110~~1360.120B.3; and

2. the no encroachment standard of Section ~~Chapter 110~~1360.120 and ~~;~~ Section ~~Chapter 110,~~ 1360.150.~~and Section Chapter 110~~.

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1360.160 Corrective Procedures

A. Violations to be corrected: When the Storm Water Administrator finds violations of applicable State and local laws, it shall be his or her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.

B. Actions in event of failure to take corrective action: If the owner of a building or property shall fail to take prompt corrective action, the Storm Water Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

1. that the building or property is in violation of the floodplain management regulations;

2. that a hearing will be held before the Storm Water Administrator at a designated place and time, not later than ten days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and

3. that following the hearing, the Storm Water Administrator may issue an order to alter, vacate, or demolish the building; or to remove fill as applicable.

C. Order to take corrective action: If, upon a hearing held pursuant to the notice prescribed above, the Storm Water Administrator shall find that the building or development is in violation of the Flood Damage Reduction Ordinance, they shall issue an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than 60 calendar days, nor more than 180 calendar days. Where the Storm Water Administrator finds that there is imminent danger to life or other property, they may order that corrective action be taken in such lesser period as may be feasible.

D. Appeal: Any owner who has received an order to take corrective action may appeal the order to the Board of Adjustment by giving notice of appeal in writing to the Storm Water Administrator and the clerk within 10 days following issuance of the final order. In the absence of an appeal, the order of the Storm Water Administrator shall be final. The Board of Adjustment shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

E. Failure to comply with order: If the owner of a building or property fails to comply with an order to take corrective action for which no appeal has been made or fails to comply with an order of the Board of Adjustment following an appeal, the owner shall be guilty of a misdemeanor and subject to the penalties contained in Section ~~Chapter 110~~1360.090.

1360.170 Appeals and Variances

Exhibit A - Draft

A. Authority of Board of Adjustment.

1. The Board of Adjustment shall hear and decide appeals from any order, decision, determination or interpretation made by the Storm Water Administrator pursuant to or regarding these regulations.

2. The Board of Adjustment shall hear and decide petitions for variances from the requirements of this ordinance.

B. Initiation and Filing of Appeal.

1. An appeal of an order, decision, determination or interpretation made by the Storm Water Administrator, may be initiated by any person aggrieved by any officer, department, board or bureau of the town.

2. A notice of appeal in the form prescribed by the Board of Adjustment must be filed with the Board's Clerk, with a copy to the Storm Water Administrator, within 20 days of the order, decision, determination or interpretation and must be accompanied by a nonrefundable filing fee as established by the Town Council. Failure to timely file such notice and fee will constitute a waiver of any rights to appeal under this section and the Board of Adjustment shall have no jurisdiction to hear the appeal.

C. Standards and Hearing Procedure.

1. The Board of Adjustment will conduct the hearing on an appeal of an order, decision, determination or interpretation of these regulations in accordance with its normal hearing procedures.

2. At the conclusion of the hearing, the Board of Adjustment may reverse or modify the order, decision, determination or interpretation under appeal upon finding an error in the application of these regulations on the part of the Storm Water Administrator who rendered the decision, determination or interpretation. In modifying the decision, determination or interpretation, the Board will have all the powers of the officer from whom the appeal is taken.

D. Initiation and Filing of Variance Petition.

1. A petition for Variance may be initiated only by the owner of the affected property, or an agent authorized in writing to act on the owner's behalf.

2. A petition for a Variance from these regulations in the form prescribed by the Board of Adjustment must be filed with the Board's Clerk, with a copy to the Storm Water Administrator, and be accompanied by a nonrefundable filing fee as established by the Town Council.

E. Factors for Consideration and Determination of Completeness

1. In passing upon variances, the Board of Adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and the:

   a. danger that materials allowed to be placed in the special flood hazard area as a result of the variance may be swept onto other lands to the injury of others during a base flood;

   b. danger to life and property due to flooding or erosion damage from a base flood;

   c. susceptibility of the proposed facility and its contents to flood damage and the effect of such damage during the base flood;

   d. importance of the services provided by the proposed facility to the community;

   e. necessity to the facility of a waterfront location, where applicable;

   f. availability of alternative locations, not subject to flooding or erosion damage during a base flood, for the proposed use;

   g. compatibility of the proposed use with existing and anticipated development;

   h. relationship of the proposed use to the Town of Indian Trail and Union County floodplain management guidance documents, Union County Flood Hazard Mitigation Plans, the Union County Greenway Plan, and any other adopted land use plans for that area;

   i. safety of access to the property in times of a base flood for ordinary and emergency vehicles;

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j. expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters during a base flood expected at the site; and

k. costs of providing governmental services during and after flood events, including maintenance and repair of public utilities and facilities, such as sewer, gas, electrical and water systems and streets and bridges.

2. A written report addressing each of the above factors shall be submitted with the application for a Variance.

3. Upon consideration of the factors listed above and the purposes of this ordinance, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

4. Variances may be issued for the repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

F. Conditions for Variances.

1. Variances shall not be issued when the variance will make the structure in violation of other Federal, State, or local laws, regulations, or ordinances.

2. Variances shall not be issued within any designated floodway or non-encroachment area if the Variance would result in any increase in flood levels during the FEMA base flood discharge unless the requirements of Section ~~Chapter 110~~1360.150 are met.

3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

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4. Variances shall only be issued prior to approval of a floodplain development permit.

G. Standards for Granting Variance.

1. Variances shall only be issued upon:

a. a showing of good and sufficient cause;

b. a determination that failure to grant the variance would result in exceptional hardship; and

c. a determination that the granting of a variance will not result in a change of flood elevations and/or an increase in floodway and non-encroachment widths, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with other existing local laws or ordinances.

2. The fact that the property could be utilized more profitably or conveniently with the variance than without the variance shall not be considered as grounds for granting the variance.

H. Notification and Recordkeeping.

1. Any applicant to whom a Variance from the FEMA base flood elevation is granted shall be given written notice specifying the difference between the FEMA base flood elevation and the elevation to which the structure is to be built and a written statement that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. Such notification shall be maintained with a record of all variance actions.

2. The Storm Water Administrator shall maintain the records of all appeal actions and report any variances regarding FEMA minimum standards to the Federal Emergency Management Agency and the State of North Carolina upon request.

I. Appeal from Board of Adjustment.

1. Any person aggrieved by the final decision of the Board of Adjustment to grant or deny a Floodplain Development Permit shall have 30 days to file an appeal to Union County Superior Court, as provided in N.C.G.S. 143-215.57 (c).

2. Any party aggrieved by the decision of the Board of Adjustment related to any other order, decision, determination or interpretation of these regulations, including the granting or denial of a variance, shall have 30 days from the receipt of the Board's decision to file a petition for review in the nature of certiorari in Union County Superior Court.

1360.180 Legal Status Provisions.

A. Effect on Rights and Liabilities Under the Existing Flood Damage Prevention Regulations.

This ordinance in part comes forward by re-enactment of some of the provisions of the Flood Damage Reduction Ordinance enacted March 21, 1980 as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued there under are reserved and may be enforced. The enactment of this ordinance shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Reduction Ordinance of the Town of Indian Trail enacted on March 21, 1980, as amended, which are not re-enacted herein, are repealed.

Exhibit A - Draft

B. Effect Upon Outstanding Floodplain Development Permits

Nothing herein contained shall require any change in the plans, construction, size, or designated use of any development or any part thereof for which a Floodplain Development Permit has been granted by the Storm Water Administrator or his or her authorized agents before the time of passage of this ordinance; provided, however, that when construction is not begun under such outstanding permit within a period of 6 months subsequent to the date of issuance of the outstanding permit, construction or use shall be in conformity with the provisions of this ordinance.

C. Severability

If any section, clause, sentence, or phrase of the Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this Ordinance.

1360.190 Effective Date

This Chapter shall become effective on October 16, 2008 and the Flood Insurance Rate Maps (FIRMs) as compiled and dated October 16, 2008 are hereby adopted and shall serve as the base information for the enforcement of this chapter.

1360.200 Adoption Certification

This Section of the Indian Trail Unified Development Ordinance represents and a true and correct copy of the Flood Damage Reduction Ordinance as adopted by the Town Council of Indian Trail, North Carolina, on the 14th day of October, 2008.

Chapter 1370. Storm Water Management Permits

All developments will be constructed and maintained so that adjacent properties are not unreasonably burdened with surface waters as a result of such developments. More specifically:

1370.010 Stormwater Detention

The purpose of flood control detention requirements is to protect downstream properties from increased flooding due to upstream development. Development or redevelopment creating a total of 20,000 square feet or more of impervious area shall be designed to control the peak discharges from the 2-, 10-, and 25-year, 24-hour storm events to pre-development levels. The emergency overflow and outlet works for any stormwater BMP shall be capable of safely passing a discharge with a minimum recurrence frequency as specified in the Town of Indian Trail Stormwater Design Manual.

Development or redevelopment that proposes to use existing detention facilities shall comply with the requirements of this Section 1370.

Detention facilities shall not be located within FEMA Special Flood Hazard Areas, drainage areas where the 100-year storm event is greater than 50 cfs, or within 10 feet of any property lines. Design of detention facilities shall be consistent with the Town of Indian Trail Stormwater Design Manual except as stated herein.

Stormwater detention design must be performed by a North Carolina Registered Professional Engineer.

Exhibit A - Draft

1370.020 Downstream Impact Analysis

A. Hydrologic Analysis

The Owner shall cause a downstream hydrologic analysis to be performed to determine if there are any additional impacts in terms of peak discharge increase or downstream flooding due to the difference in the pre and post-development 50- and 100-year storm events. The analysis shall be performed at the outlet(s) of the site and downstream at each tributary junction to the point in the conveyance system where the area of the portion of the site draining into the system is 10% of the total drainage area above that point. Key detention structures in the study area must be modeled.

B. Hydraulic Analysis

If during the site plan review process the Town Engineer determines that as a result of an increase in peak discharge between the pre and post-development 50-year storm event, detrimental impacts at thoroughfare culvert crossings are probable, the Owner shall cause a hydraulic analysis to be performed to determine flood elevations for the areas impacted by increased flows. No existing or proposed thoroughfare culvert crossing shall be designed to have stormwater encroach upon the roadway pavement.

If during the site plan review process the Town Engineer determines that as a result of an increase in peak discharge between the pre and post-development 100-year storm event,