

AN ORDINANCE TO AMEND CERTAIN SECTIONS OF THE UNIFIED DEVELOPMENT ORDINANCE

BE IT ORDAINED by the Town Council of the Town of Apex as follows:

**Section 1. Section 6.2 of the Unified Development Ordinance is amended to read as follows with additions shown as bold underlined text and deletions shown as struck-through text:**

6.2.1 Authority

The Town is authorized to adopt the Flood Damage Prevention Overlay District pursuant to 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 NCGS. **The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Article 6 of Chapter 153A; Article 8 of Chapter 160A; and Article 7, 9, and 11 of Chapter 160D of the North Carolina General Statutes, delegated to local governmental units the authority to adopt regulations designed to promote the public health, safety, and general welfare.**

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6.2.6 Basis for Establishing the Special Flood Hazard Areas

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) for Wake County dated ~~May 2, 2006~~ **December 6, 2019**, and its accompanying Flood Insurance Rate Map Panels (~~0721, 0722, 0731, 0732, 0733, 0740, 0741, 0742, 0743, 0750, 0751, 0752, 0753, to include additional ETJ panels, 0608K, 0710K, 0711K, 0712K, 0713K, 0720, 0723, & 0730~~) **associated DFIRM panels, including any digital data developed as part of the FIS**, which are adopted by reference and declared to be a part of this Ordinance, **and any revision thereto**. The "Special Flood Hazard Areas" also include those defined through standard engineering analysis for private developments or by governmental agencies, but which have not yet been incorporated in the FIRM. This includes detailed flood information generated as a requirement of Sec. 6.2.17.B *Provide Flood Data*.

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6.2.12 Penalties for Violation

Violation of the provisions of this ~~Section~~ **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 exception**, shall constitute a **Class 1** misdemeanor **pursuant to NC G.S. § 143-215.58**. Any person who violates this ~~Section~~ **Ordinance** or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than ~~\$50.00~~ **100.00** or be imprisoned for not more than 30 days, or both. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town from taking such other lawful action as is necessary to present or remedy any violation.

6.2.13 Administration

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B) *Floodplain Development Permit and Certification Requirements*

Application for a floodplain development permit shall be made to the Floodplain Administrator on forms furnished by the Town prior to any development activities in the Flood Damage Prevention Overlay District. The floodplain development permit may include, but shall not be limited to, plans in duplicate drawn to scale showing the nature,

location, dimensions, and elevations of the area in question; existing or proposed structures; and the location of fill materials, storage areas, and drainage facilities. Specifically, the following information is required:

1) *Base flood elevation data provided.* Where base flood elevation data is provided in accordance with Sec. 6.2.17.B *Provide Flood Data*, and 6.2.6 *Basis for Establishing the Special Flood Hazard Areas*, the application for a floodplain development permit shall show:

a) The elevation (in relation to ~~mean sea level~~ **NAVD 1988**) of the lowest floor (including basement of all new and substantially improved structures;

b) If the structure has been floodproofed in accordance with Sec. 6.2.16.B.32 *Commercial, Industrial, or Nonresidential Structure* **Non-Residential Construction**, the elevation (in relation to ~~mean sea level~~ **NAVD 1988**) to which the structure was floodproofed.

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4) *Structure floodproofed.* When a structure is floodproofed, the applicant shall provide a certificate from a registered professional engineer or architect that the nonresidential flood-proofed structure meets the floodproofing standards in Sec. 6.2.16.B.32 *Commercial, Industrial, or Nonresidential Structure* **Non-Residential Construction**.

5) *Floor elevation or floodproofing certification required.* A floor elevation or floodproofing certification is required after the lowest floor is completed. Within 21 calendar days of establishment of the lowest floor elevation, or floodproofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the lowest floor, or floodproofing elevations, whichever is applicable, as built, in relation to ~~mean sea level~~ **NAVD 1988**. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing is utilized for a particular building said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work done within the 21-day calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the floor elevation survey data submitted. The permit holder immediately and prior to further progressive work being permitted to proceed shall correct deficiencies detected by such review. Failure to submit the survey or failure to make said corrections required shall be cause to issue a stop-work order for the project.

C) *Duties and Responsibilities*

The duties of the Floodplain Administrator shall include but are not be limited to:

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- 5) *Preventing encroachment within floodways and non-encroachment areas.* Preventing encroachment within *floodways* and non- encroachment areas unless the certification and flood hazard reduction provisions of Secs. 6.2.16.A *General Standards*, through 6.2.198 *Standards for Subdivisions*, are met.
- 6) *Actual elevations.* Obtaining actual elevation (in relation to ~~mean sea level~~**NAVD 1988**) of the lowest floor (including basement) of all new or substantially improved structures, in accordance with Sec. 6.2.13.B.5 *Floor Elevation ~~Or~~ Floodproofing Certification Required.*
- 7) *Actual elevations.* Obtaining actual elevation (in relation to ~~mean sea level~~**NAVD 1988**) to which the new or substantially improved structures have been floodproofed, in accordance with Sec. 6.2.13.B.5 *Floor Elevation or Floodproofing Certification Required.*
- 8) *Actual elevations.* Obtain actual elevation (in relation to ~~mean sea level~~**NAVD 1988**) of all public utilities in accordance with Sec. 6.2.13.B.5 *Floor Elevation or Floodproofing Certification Required.*
- 9) *Certifications.* When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Sec. 6.2.16.B.32 ~~*Commercial, Industrial, or Nonresidential Structure*~~**Non-Residential Construction.**

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6.2.16 Provisions for Flood Hazard Reduction

A) General Standards

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

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- 4) *Prevent water from entering or accumulating within the components during conditions of flooding. **All new** ~~E~~lectrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities **equipment** shall be designed and/or located **at or above the regulatory flood protection elevation or designed and installed** so as to prevent water from entering or accumulating within the components during conditions of flooding; **the occurrence of the base flood. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, water heaters, and electric outlets/switches.***
  - a) **Replacements part of a substantial improvement, electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.**
  - b) **Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.**

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B) Specific Standards

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided and in Future Conditions Flood Hazard Areas where Future Conditions Flood Elevations data has been provided, as set forth in Sec. 6.2.6 or Sec. 6.2.17, the following provisions, in addition to the provisions of Sec. 6.2.16.A, are required:

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3) *Manufactured or mobile homes.* Manufactured or mobile homes existing on August 1, 2000.

...

b) Manufactured or mobile homes that are to be placed or substantially improved on sites in an existing manufactured home subdivision or mobile home park that are not subject to the provisions of Sec. 6.2.16.B.43.a above must be elevated so that the lowest floor of the manufactured or mobile home is elevated no lower than two (2) feet above the base flood elevation, and is securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement.

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4) *Recreational vehicle.* A recreational vehicle is ready for highway use if it is on wheels or a jacking system, is attached to the site only by quick disconnect type utilities and security and devices, and has no permanently attached additions. Recreation vehicles placed on sites shall either:

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c) Meet the requirements of Sec. 6.2.13.B *Floodplain Development Permit and Certification Requirements*, Sec. 6.2.16.A *General Standards*, and Sec. 6.2.16.B.43 *Manufactured or Mobile Homes*.

...

6) *Floodways and Non-Encroachment Areas.* Located within Special Flood Hazard Areas established in Sec. 6.2.6 *Basis for Establishing the Special Flood Hazard Areas*, Sec. 6.2.17.B *Provide Flood Data*, or Sec. 6.2.18.D *Base Elevation Data or Certification of No Floodplain*, are areas designated as floodways and non-encroachment areas. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters which carry debris and potential projectiles and has erosion potential. ~~The following provisions shall apply:~~ **No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:**

a) ~~No encroachments shall be permitted. Substantial improvements of structures and buildings in existence on August 1, 2000 shall be permitted if it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood. Such certification and technical data shall be presented to the Floodplain Administrator. It is demonstrated that the proposed encroachment would not result in~~

any increase in the flood levels during the occurrence of the base flood discharge, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of floodplain development permit; or

- b) If Sec. 6.2.16.B.7.a above is satisfied, all substantial improvements shall comply with all applicable flood hazard reduction provisions of Secs. 6.2.16.A General Standards, through 6.2.18 Standards for Subdivisions. A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained within six months of completion of the proposed encroachment.
- e) ~~No manufactured or mobile homes shall be permitted, except in an existing manufactured home subdivision or mobile home park. A replacement manufactured or mobile home may be placed on a lot in an existing manufactured home subdivision or mobile home park provided the anchoring and the elevation standards of Sec. 6.2.16.B.4 *Manufactured or Mobile Homes*, are met.~~

**7) Standards for Riverine Floodplains with Base Flood Elevations 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) **Standards of 6.2.16 Sections A and B; and**
- b) **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) foot at any point.**

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#### 6.2.19 Terms Defined

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

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**“Alteration of a watercourse” means a dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.**

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**“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.**

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**“Development Activity” means any activity defined as Development which will necessitate a Floodplain Development Permit. This includes buildings, structures, and non-structural items, including (but not limited to) fill, bulkheads, piers, pools, docks, landings, ramps, and erosion control/stabilization measures.**

**“Digital Flood Insurance Rate Map (DFIRM)” means the digital official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.**

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**“Existing building and existing structure” means any building and/or structure for which the “start of construction” commenced before March 3, 1992, the effective date of the initial FIRM.**

“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 **February 18, 1992**, the original effective date of the floodplain management regulations adopted by the community.

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**“Flood-resistant material” means any building product [material, component or system] capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.**

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**“Floodway encroachment analysis” means an engineering analysis of the impact that a proposed encroachment into a floodway or non-encroachment area is expected to have on the floodway boundaries and flood levels during the occurrence of the base flood discharge. The evaluation shall be prepared by a qualified North Carolina licensed engineer using standard engineering methods and hydraulic models meeting the minimum requirements of the National Flood Insurance Program.**

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**“Letter of Map Change (LOMC)” means an official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:**

- (a) **Letter of Map Amendment (LOMA): An official amendment, by letter, to an effective National Flood Insurance Program map. A LOMA is based on technical data showing that a property had been inadvertently mapped as being in the floodplain, but is actually on natural high ground above the base flood elevation. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.**
- (b) **Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.**
- (c) **Letter of Map Revision Based on Fill (LOMR-F): A determination that a structure or parcel of land has been elevated by fill above the BFE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community’s floodplain management regulations.**
- (d) **Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.**

**“Light Duty Truck” means any motor vehicle rated at 8,500 pounds Gross Vehicular Weight Rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:**

- (a) **Designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or**
- (b) **Designed primarily for transportation of persons and has a capacity of more than 12 persons; or**
- (c) **Available with special features enabling off-street or off-highway operation and use.**

**“Lowest Adjacent Grade (LAG)” means the lowest elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.**

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**“Map Repository” means the location of the official flood hazard data to be applied for floodplain management. It is a central location in which flood data is stored and managed; in North Carolina, FEMA has recognized that the application of digital flood hazard data products have the same authority as hard copy products. Therefore, the NCEM’s Floodplain Mapping Program websites house current and historical flood hazard data. For effective flood hazard data the NC FRIS website (<http://FRIS.NC.GOV/FRIS>) is the map repository, and for historical flood hazard data the FloodNC website (<http://FLOODNC.GOV/NCFLOOD>) is the map repository.**

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**“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 floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.**

**“New Construction” means structures for which the “start of construction” commenced on or after **February 18, 1992**, the effective date of the original version of the community’s Flood Damage Prevention Ordinance and includes any subsequent improvements to such structures.**

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**“Post-FIRM” means construction or other development for which the “start of construction” occurred on or after **March 3, 1992**, the effective date of the initial Flood Insurance Rate Map for the area.**

**“Pre-FIRM” means construction or other development for which the “start of construction” occurred before **March 3, 1992**, the effective date of the initial Flood Insurance Rate Map for the area.**

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

- (1) built on a single chassis;
- (2) 400 square feet or less when measured at the largest horizontal projection;
- (3) designed to be self-propelled or permanently towable by a light duty truck; and
- (4) designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.
- (5) **Is fully licensed and ready for highway use.**

**“Reference Level” is the top of the lowest floor for structures within Special Flood Hazard Areas and Future Conditions Flood Hazard Areas designated as ~~Zone A1-A30, AE, A, A99 or Zone X (Future)~~ **Zones A, AE, and Future X.****



~~“Regulatory Flood Protection Elevation” means the elevation above mean sea level to which the reference level of all structures and other development located within Special Flood Hazard Areas and Future Conditions Flood Hazard Areas must be protected~~ **“Base Flood Elevation” plus the “Freeboard”.**

- (1) In “Special Flood Hazard Areas” where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard.
- (2) In “Special Flood Hazard Areas” where no BFE has been established, this elevation shall be at least two (2) feet above the highest adjacent grade.
- (3) In Future Conditions Flood Hazard Areas this elevation shall be the Future Conditions Flood Elevation plus two (2) feet of freeboard.

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“Substantial Improvement” means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one-(1) year period for which the cost equals or exceeds 50% of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repairwork performed. The term does not, however, include either:

- (1) 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,
- (2) any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure **and the alteration is approved by variance issued pursuant to Sec. 6.2.15 of this Ordinance.**

**“Technical Bulletin and Technical Fact Sheet” means a FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of the U.S. Code of Federal Regulations at Section 60.3. The bulletins and fact sheets are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.**

**“Temperature Controlled” means having the temperature regulated by a heating and/or cooling system, built-in or appliance.**

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“Water Surface Elevation (WSE)” means the height, in relation to ~~mean sea level~~ **NAVD 1988**, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

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**Section 2.** The Planning Director and/or Town Manager are hereby authorized to renumber, revise formatting, correct typographic errors, to verify and correct cross references, indexes and diagrams as necessary to codify, publish, and/or accomplish the provisions of this ordinance or future amendments as long as doing so does not alter the terms of this ordinance.

**Section 3.** All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed. If any section, paragraph, subdivision, clause or provision of this ordinance shall be adjudged invalid, such adjudication shall apply only to such section, paragraph, subdivision, clause or provision so adjudged and the remainder of the ordinance shall be deemed valid and effective.

**Section 4.** The ordinance shall be effective upon enactment on the \_\_\_\_ day of November 2020.

Introduced by Council Member \_\_\_\_\_

Seconded by Council Member \_\_\_\_\_

Attest:

TOWN OF APEX

\_\_\_\_\_  
Donna Hosch, MMC, NCCMC  
Town Clerk

\_\_\_\_\_  
Jacques K. Gilbert  
Mayor

Approved As To Form:

\_\_\_\_\_  
Laurie L. Hohe  
Town Attorney