APPLICATION SUMMARY

Case Number: TA19-02

Request:
- To amend the Flood Damage Prevention Ordinance to incorporate updated Flood Insurance Rate Map data and amend the requirements of the Coastal A Special Flood Hazard Area.
- To amend the Zoning Ordinance to clarify building height requirements in Coastal A Special Flood Hazard Areas.

Applicant: New Hanover County

Subject Ordinances:
- Flood Damage Prevention Ordinance
- Zoning Ordinance

Subject Article(s) and Section(s):
- Flood Damage Prevention Ordinance Article 3, Section B - Basis for Establishing the Flood Hazard Areas
- Flood Damage Prevention Ordinance Article 5, Section H – Standards for Coastal A Zones (Zone CAZ) LiMWA
- Zoning Ordinance Section 51 – Dimensional Requirements

BACKGROUND

On July 9, 2018, the New Hanover County Board of Commissioners adopted a text amendment request to the Flood Damage Prevention Ordinance updating the Flood Insurance Rate Maps (FIRMs) and incorporating various changes to the ordinance. This action adopted new FIRMs for the vast majority of the county.

Staff was subsequently notified that as a result of an updated statewide mapping format and adoption protocols, eighteen FIRM panels in the northern portion of the county adjacent to Pender County were not made effective in 2018. This updated mapping format develops updated flood studies by river basins as opposed to community boundaries, which means that some communities will share FIRM panels, and the panels do not become effective until all jurisdictions sharing the panels have been authorized to complete the local adoption process by FEMA. These panels were held from becoming effective in New Hanover as Pender County had not been authorized to move forward with adoption.

On June 6, 2018, staff received a Letter of Final Determination from FEMA, initiating a 6-month period for New Hanover County to amend the Flood Damage Prevention Ordinance to incorporate the reference date for the new flood insurance study and to move forward with adoption of one map panel. This panel, located in the northwest portion of the county, is located within the Cape Fear River Basin and is included within the panels which have been released to move forward with adoption by FEMA. No structures within this map panel in the county’s jurisdiction are affected by the map change. The most notable change in the flood zone delineations in the county’s jurisdiction is the addition of a floodway designation along the channel
of the Cape Fear River. The floodway is defined as the channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the based flood without cumulatively increasing the water surface elevation more than 1 foot.

Changes in Special Flood Hazard Area delineations on Panel 2291 proposed for adoption

The remaining FIRM panels, located in the NE Cape Fear River and Futch Creek watersheds, will be brought forward for adoption to become effective once authorized to move forward by FEMA.

FIRM Panels
Proposed for Adoption

FIRM Insurance Rate Map panels in New Hanover County with current status
In addition to the adoption of this map panel, amendments are proposed to the Flood Damage Prevention and Zoning ordinances in order to provide consistency with the current version of the NC State Building Code as well as building height requirements in Special Flood Hazard Areas. In January 2019, an amendment to the building code requiring that all construction in Coastal A Special Flood Hazard Areas meet V-zone construction standards was made effective. Currently, the Flood Damage Prevention Ordinance only contains this requirement for non-residential construction, which was consistent with the building code requirements when this zone was incorporated in the flood ordinance in July 2018. Staff is proposing that construction requirements within the Coastal A zone be amended to apply to all construction in order to provide consistency with the 2019 NC Building Code.

Currently, the Zoning Ordinance allows a maximum height of 44’ for structures located within a Coastal High Hazard flood zone or within certain areas governed by the Coastal Area Management Act (CAMA) in the RA, R-20S, R-20, R-15, R-10, and R-7 zoning districts. Outside of these areas, building heights are limited to 35’. As both the current building code and proposed Flood Damage Prevention Ordinance amendment will require all construction in a Coastal A zone to meet V-zone construction requirements, staff is proposing to amend the applicable sections in the Zoning Ordinance to allow an increase in height from 35’ to 44’ to provide a consistent height maximum where elevated piling construction is required.

**PROPOSED AMENDMENT**

Red Strikethrough – Proposed Deletions

Red Text – Proposed Additions

Flood Damage Prevention Ordinance

**ARTICLE 3. GENERAL PROVISIONS.**

**SECTION B. 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 FIS dated August 28, 2018 December 6, 2019 for New Hanover County and associated DFIRM panels, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this ordinance. Future revisions to the FIS and DFIRM panels that do not change flood hazard data within the jurisdictional authority of New Hanover County are also adopted by reference and declared a part of this ordinance. Subsequent Letter of Map Revisions (LOMRs) and/or Physical Map Revisions (PMRs) shall be adopted within 3 months.

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

**SECTION H. STANDARDS FOR COASTAL A ZONES (ZONE CAZ) LiMWA**

Non-residential Structures in CAZs shall be designed and constructed to meet V Zone requirements, including requirements for breakaway walls. However, the NFIP regulations also require flood openings in walls surrounding enclosures below elevated buildings in CAZs (see Technical Bulletin 1, Openings in Foundation Walls and Walls of Enclosures). Breakaway walls used in CAZs must have flood openings that allow for the automatic entry and exit of floodwaters to
minimize damage caused by hydrostatic loads. Openings also function during smaller storms or if anticipated wave loading does not occur with the base flood.

(1) All new **non-residential** construction and substantial improvements shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings or columns) is no lower than the regulatory flood protection elevation. Floodproofing shall not be utilized on any structures in Coastal A Zones to satisfy the regulatory flood protection elevation requirements.

(2) All new **non-residential** construction and substantial improvements shall have the space below the lowest horizontal structural member free of obstruction so as not to impede the flow of flood waters, with the following exceptions:

(a) Open wood, plastic or other latticework or insect screening may be permitted below the lowest floor for aesthetic purposes only and must be designed to wash away in the event of wave impact and in accordance with the provisions of Article 5, Section B(4)(e)(i). Design plans shall be submitted in accordance with the provisions of Article 4, Section B(1)(d)(iii)(2); or

(b) Breakaway walls may be permitted provided they meet the criteria set forth in Article 5, Section B(4)(e)(ii). Design plans shall be submitted in accordance with the provisions of Article 4, Section B(1)(d)(iii)(1).

(3) All new **non-residential** construction and substantial improvements shall include, in Zones CAZ, 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 design criteria in Article 5, Section B(4)(d).

(4) Concrete pads, including patios, decks, parking pads, walkways, driveways, etc. must meet the provisions of Article 5, Section G(5).

(5) All new **non-residential** construction and substantial improvements shall meet the provisions of Article 5, Section G(3).

(6) A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions of Article 4, Section B and Article 5, Section G(3) and (4), on the current version of the North Carolina V-Zone Certification form or a locally developed V-Zone Certification form.

(7) Recreational vehicles may be permitted in Coastal A Zones provided that they meet the Recreational Vehicle criteria of Article 5, Section B(6)(a).

(8) Fill/Grading must meet the provisions of Article 5, Section G(11).

(9) Decks and patios must meet the provisions of Article 5 Section G(15) and (16).
(10) In coastal high hazard areas, development activities other than buildings and structures must meet the provisions of Article 5, Section G(17).

Zoning Ordinance

51.3-2: **Dimensional Requirements:**

1. Minimum lot area: 30,000 sq. ft.
2. Minimum lot width: 115 feet
3. Minimum side yard: 20 feet
4. Minimum front yard: 40 feet
5. Minimum rear yard: 30 feet
6. Maximum height: 35 feet

The maximum allowable height for piling supported structures which are located in "Coastal High Hazard Areas, V-Zones" or Coastal A Zones as defined by Article 474 of the New Hanover County Code-Flood Damage Prevention Ordinance shall be 44 feet.

51.4-2: **Dimensional Requirements:**

1. Minimum Lot area: 20,000 Square Feet
2. Minimum Lot width: 90 feet
3. Minimum Front Yard: 30 feet
4. Minimum Side Yard: 15 feet
5. Minimum Rear Yard: 25 feet
6. Maximum Height: 35 feet

The maximum allowable height for piling supported primary structures which are located in "Coastal High Hazard Areas, V-Zones", Coastal A Zones, and/or Ocean Hazard Areas as defined by the Coastal Resources Commission shall be 44 feet. (10/5/92)

51.5-2: **Conventional Residential Regulations**

Dimensional Requirements:

1. Minimum lot area: 20,000 sq.ft. Duplex 35,000 sq.ft.
2. Minimum lot width: 90 feet
3. Minimum front yard: 30 feet
4. Minimum side yard: 15 feet
5. Minimum rear yard: 25 feet
6. Maximum Height: 35 feet

The maximum allowable height for piling supported primary structures which are located in "Coastal High Hazard Areas, V-Zones", Coastal A Zones, and/or Ocean Hazard Areas as defined by the Coastal Resources Commission shall be 44 feet. (10/5/92)

51.6-2: **Conventional Residential Regulations**

Dimensional Requirements:
(1) Minimum lot area 15,000 sq.ft. Duplex 25,000 sq.ft.
(2) Minimum lot width 80 feet
(3) Minimum front yard 25 feet
(4) Minimum side yard 10 feet
(5) Minimum rear yard 20 feet
(6) Maximum height 35 feet

The maximum allowable height for piling supported primary structures which are located in "Coastal High Hazard Areas, V-zones", Coastal A Zones, and/or Ocean Hazard Areas as defined by the Coastal Resources Commission shall be 44 feet. (10/5/92)

51.7-2: Conventional Residential Regulations

Dimensional Requirements:

(1) Minimum lot area: 10,000 square feet (2/16/87)
   Duplexes: 15,000 sq. ft. (1/5/81)
(2) Minimum lot width 70 feet
(3) Minimum front yard 25 feet
(4) Minimum side yard 5 feet
(5) Minimum rear yard 20 feet
(6) Maximum height 35 feet

The maximum allowable height for piling supported primary structures which are located in "Coastal High Hazard Areas, V-Zones", Coastal A Zones, and/or Ocean Hazard Areas as defined by the Coastal Resources Commission shall be 44 feet. (10/5/92)

51.8-5: All Medium Density Developments shall comply with the following requirements:

(6) Maximum allowable height for structures shall be 35 feet. However, the maximum allowable height for piling supported primary structures which are located in "Coastal High Hazard Areas, V-Zones", Coastal A Zones, and/or Ocean Hazard Areas as defined by the Coastal Resources Commission shall be 44 feet.

Staff Analysis

As a requirement of the County’s participation in the NFIP, adoption and enforcement of floodplain management regulations and FIRMs are required. As all statutory due-process requirements were met and the Letter of Final Determination was issued from FEMA, local adoption of the additional panel in the recent Flood Insurance Study must take place prior to December 6, 2019 in order to ensure continued eligibility in the NFIP.

The proposed amendment to the Flood Damage Prevention Ordinance provides consistency with the 2019 NC Building Code, which was updated in January 2019 to require construction methods for all structures in Coastal A zones to adhere to standards in the Coastal High Hazard Areas. This generally includes a number of detailed methods that are included in structures utilizing elevated
piling construction. The consistency between these codes will assist in eliminating conflicts between requirements of the Flood Damage Prevention Ordinance and NC Building Code, resulting in a more efficient and streamlined permitting process.

The proposed amendment to the Zoning Ordinance provides consistency in the application of building height requirements in areas where elevated piling construction is required. Under the 2019 NC Building Code, all structures are currently required to adhere to these standards, but the Zoning Ordinance only specifies that areas designated as a Coastal High Hazard Area or Ocean Hazard Area by the Division of Coastal Management can utilize the increase of height to 44’. Currently in the Coastal A Zones, the Zoning Ordinance limits building heights to 35’ in certain residential districts; however, the NC Building Code would still require elevated piling construction, limiting architectural flexibility on these structures. The proposed amendment would ensure that the height standards for construction in flood zones requiring elevated piling construction are consistent with other code requirements.

**STAFF RECOMMENDATION**

Staff recommends approval of the proposed amendment and suggests the following motion:

I move to recommend APPROVAL of the proposed amendment to New Hanover County’s Zoning Ordinance. I find it to be CONSISTENT with the purpose and intent of the 2016 Comprehensive Plan because it promotes environmentally responsible growth by identifying those areas most at risk for flooding impacts in the unincorporated county and provides for measures to mitigate the effects of flooding on development in those areas consistent with minimum NFIP requirements. In addition, the amendment will allow structures in the Coastal A Special Flood Hazard areas to have the one to three story buildings recommended for single-family and multi-family residences across place types. I also find recommending APPROVAL of the proposed amendment is reasonable and in the public interest because the proposal incorporates and codifies the most up to date Flood Insurance Rate Maps and Ordinance provisions, providing mitigation measures for those areas determined to be most at risk for flooding impacts in the unincorporated County. Additionally, adoption of the request ensures continued eligibility in the NFIP and provides consistency in the application of ordinance provisions for structures in Special Flood Hazard Areas.